

UGA Geology News



Spring 2006

Letter from the Department Head



Greetings from Athens, and I hope this finds you well. We've had another busy year. The financial climate at the University seems to have improved, and we are hoping that we have seen the end of budget cuts for now. Of course, one never knows! On the bright side, our proposal to renovate the lecture hall, Room 200A, was approved after several

attempts. Over the summer, those ancient orange seats will be replaced by nice cushioned burgundy ones, and we'll have state-of-the-art instructional technology installed, hopefully by the beginning of Fall Semester. We were also able to purchase a new van this year, leaving just one older model in need of replacement. As the semester winds down, the field programs are making preparations for an active summer. Mike Roden will travel with the geology field school to Cañon City, Colorado shortly after classes finish this semester, and Dave Wenner is directing the Honors Interdisciplinary Field Program which will depart in early June. Marta and Alberto Patiño Douce will run their Study Abroad Program to Argentina for the first time this summer as well, and I'm sure this will be an exciting and rewarding adventure for those students enrolled.

We have had several changes this year. Patti Gary rejoined the office staff, filling the position left by Mary Crowe's retirement last spring. John Michael Lewis, IT support, joined the department last fall after Jeff Clippard left for another position. Three faculty members were approved for promotion this year: Doug Crowe and Valentine Nzengung to Professor, and Marta Patiño Douce to Senior Lecturer. Congratulations!

The Department's several endowed funds - Miriam Watts Wheeler, Gilles and Bernadette Allard, Joseph A. Berg, and John Sanford Levy, in addition to the Geology Fund - continue to have a huge impact on our program. This year, the department made the inaugural Berg Award, supporting student research in geo-



Contents

Letter from the Department Head
Pages 1-2

Faculty News
Pages 2-8

Emeritus News
Page 8

Student Accomplishments
Pages 9-10

Graduate Theses & Dissertations 2004-2006
Page 11

Departmental Awards to Graduate Students
Page 12

Field Schools
Pages 13-18

Alumni / Alumnae News
Pages 19-26

physics, to Scott Baker for his thesis work modeling the structure of the crust and uppermost mantle beneath a portion of the southern Appalachians. Christian Schrader, who is doing his thesis research on the geochemistry of early extension-related magmas of the Trans-Pecos Magmatic Province, Texas, is the recipient of the Allard Award this year. We especially thank all those who have contributed to these funds. Your support is certainly very much appreciated!

My second term as department head is quickly drawing to a close, and I had decided some time ago to step down at that point. Following the recommendation

of the faculty, the Dean has appointed Mike Roden as Geology's next department head, and I certainly wish him the best! Congratulations, Mike!

- Sue Goldstein

Faculty News

Doug Crowe

I have continued to work on our NSF-funded Kamchatka Microbial Observatory project with Paul Schroeder and Chris Romanek from this department, as well as researchers from other departments here at UGA and other universities. Paul and I are in the process of logistical planning for the group's fourth field season. The project is an interdisciplinary effort to characterize the links between the geology and microbiology realms in the Uzon caldera, located about 300 km north of the city of Petropavlovsk in Far East Russia.



The caldera is a wonderfully pristine, Yellowstone-like area with many active hydrothermal fields. It's full of blueberries and bears too! We have had two graduate students, Jen Kyle and Elizabeth Hollingsworth, do theses here, as well as several undergrads, most of whom have had opportunities to actually get into the field and see things first-hand.

I have also continued my participation in the Geology Field school with Mike Roden and Chris Fleischer. I am taking the summer of 2006 off actually, after 11 consecutive years, but plan on returning to the program in 2007. The Stable Isotope Lab continues to provide the department with the capability to do most stable isotope analyses, although my involvement in the lab has diminished greatly as Julie Cox provides outstanding support in the lab – thanks Julie! Lastly, I am still teaching the same suite of classes as always, from undergrad intro classes to grad level Ore Deposit and Stable Isotope classes and I am having fun doing so!



John Dowd

I continued my research this year in England with Dr. Andrew Williams (University of Plymouth). Contrary to popular belief, I was not cycling (it was too cold and snowy). We have instrumented two sites, Holne Moor on Dartmoor and a drained field at the Institute of Grassland and Environmental Research. We have been joined in the research by Dr. Kate Heppell (Queen Mary College, London). Joey McKinnon and Kimberley Coke are nearly finished with their research, which has been conducted in parallel to the work in England. In addition, Kimberley received a \$3000 award from the API.



Erv Garrison

Summer and fall, 2005, saw a lot of research activity at Gray's Reef and nearby J-reef on Quaternary stratigraphy and geoarchaeology to include findings on a 'cool' death assemblage of scallops that date to around 40,000 BP. Jessica Cook worked on this project, sponsored by NOAA, and she also received NOAA Research Assistantship support to catalogue and remediate the Sam Gray Invertebrate Collection at our Georgia Museum of Natural History.



Other geoarch news includes Rhonda Cranfill completing her thesis this next month on petrography of Spanish ceramics; Sheldon Skaggs returns to do field work in eastern Italy's Abruzzo Province with Oberlin College. Sheldon presented his study results of Roman period, Tunisian leads, at two symposia - one at St. Johns University, Newfoundland and the other at the recent (March) meeting of the American Chemical Society in Atlanta. Michelle Trogdon (M.S. candidate) and Nina Serman (Ph.D. candidate) are completing their theses this spring as well. Michelle on prehistoric Oaxacan flint quarries and Nina on the geoprospection of Kolomoki Mounds State Park.

I presented a poster at the spring AGU meeting in (pre-Katrina) New Orleans. "Geoprospection of Mound A, Etowah Mounds State Park, Georgia, 2001-02."

Sue Goldstein

Collaborating with colleagues from New York, I started a new funded project last June that focuses on the biodiversity of modern 'primitive' foraminifera from selected sites, and I am really having a great time with it. In a sense, I get to play the role of a 19th Century naturalist, but with modern tools and approaches. We can now answer many of the problems that the pioneers in the field could only wonder at, in addition to many others. I have more field work planned over the next year as

well as a trip to Brazil in September for the international forums conference.



Some of our more senior alumni many remember Barun Sen Gupta who was on the geology faculty at UGA from 1969-1979. In honor of the many contributions he made throughout his career, Barun received the Joseph A. Cushman Award this past fall at GSA. I had the privilege of presenting Barun with the award and reading the citation. The Cushman Foundation hosted quite a celebration in his honor.

My term as department head is quickly coming to a close – just a couple of months left, and I am looking forward to my transition back to a full schedule of research and teaching.

Rob Hawman

We used seismic waves generated by quarry blasts to image the deep structure (depth range: 5-60 km) of the Blue Ridge Mountains in western North Carolina and north Georgia. The work was carried out in the Great Smoky National Park during the summer of 2004 and was part of a larger project begun in 2002. The project was funded by the National Science Foundation. We used an array of twenty seismic recorders with three-component, 4.5-Hz seismometers. The recorders were deployed along Straight Fork Road, near the southern boundary of the Park, at roughly 200-meter intervals. During July 2004, we monitored seismic waves generated by 6 blasts at quarries in Georgia and North Carolina. These waves sampled the crust beneath several important mountain ranges within the Blue Ridge Province, including the Newfound, Walnut, Black, Balsam, Alarka, Cowee, Nantahala, Snowbird, and Tusquitee Mountains, along with portions of the foothills along the province's southeast flank.



Together with roughly 40 blasts recorded between 2002 and 2003 at other locations in North Carolina, and 65 blasts recorded during earlier experiments in the Inner Piedmont and Carolina Terrane of north Georgia, these data will allow us to put together a rough three-dimensional image of deep structures beneath the Blue Ridge Mountains. Preliminary results show an increase in

crustal thickness from 38 km for the Carolina Terrane (and associated regional gravity high) to about 50 km along the foothills of the southeastern Blue Ridge (and associated regional gravity low), suggesting that the Blue Ridge Mountains are supported by a deep crust root.

Steve Holland

My current research remains focused on the intersection of sequence stratigraphy and paleobiology. My graduate students

(Karen Layou and Noel Heim) and I have concentrated in this past year on the concept of additive diversity partitioning in the fossil record. Additive diversity partitioning is a new concept in ecology that offers insight into how biodiversity is put together by reconstructing how much diversity gets added as one moves to larger spatial scales, such as by investigating new habitats, provinces, or continents. The concept has not been previously applied in the fossil record, so this is especially fertile ground. We are investigating how species dispersal, biotic invasions, and extinction episodes alter the partitioning of diversity across spatial scales. Karen and I chaired a session on the subject of diversity and gradient ecology at last year's annual GSA meeting in Salt Lake City. Karen is also submitting a paper to Paleobiology on the effects of extinction on diversity partitioning. Noel will soon be submitting a paper to Paleobiology on species interchange among continents and its predicted effects on diversity partitioning.



Both have also done well obtaining funding this past year, with Noel receiving a three-year EPA STAR fellowship and Karen receiving a Dissertation Completion Assistantship from the UGA Graduate School. On other research fronts, my long-time collaborator, Mark Patzkowsky, and I have recently signed a contract with University of Chicago Press to write a text on Stratigraphic Paleobiology. The book will explore the implications of sequence stratigraphy and other recent advances in stratigraphy for the study of the fossil record. It will be aimed at researchers and graduate students. Mark and I are also finishing up our work on the paleoecology of the Upper Ordovician of the Cincinnati Arch and will begin fieldwork this summer on the record of climate change in the equatorial Ordovician strata of Wyoming, which will be a welcome change of scenery!

I continue to teach Sedimentary Geology to juniors and seniors in the spring and taught Sequence Stratigraphy to graduate students this past fall. Sequence Stratigraphy included a weekend field trip to the Cumberland Gap area of Kentucky, Tennessee, and Virginia. We interpreted the sequence stratigraphy of a wide range of deposits including spectacular Carboniferous deltaic deposits, complicated wave-dominated shelf strata from the Silurian, and stromatolitic carbonate platform deposits from the Ordovician.

Our family is doing well. Tish has been traveling more, including her first cruise since the boys were born, and she's glad to get back to sea. Zack will be five in June and has become a total sports fanatic. Alex just turned two and his personality is really taking shape. We keep a website updated weekly with their photos at homepage.mac.com/stevenholland.

Valentine Nzengung

Beginning in Fall 2006, my course offerings will include a new course titled Environmental Geosciences, which was recently approved by UGA's Curriculum Committee. I am very excited to

teach this new undergraduate course and engage our students in discussions focusing on existing and emerging environmental issues. Following the recent approval of a new Environmental Engineering degree program at UGA, we are hopeful that this will open many new opportunities to our department, students and faculty. The Department of Geology already has a strong environmental science program. I am hoping that with the arrival of Environmental Engineering at UGA, the U.S. Environmental Protection Agency will no longer reject our students' STAR Research Proposals on the grounds that there is no Engineering in our neighborhood.

My research program will miss the very strong contributions of two doctoral candidates after Spring 2006. Lina K. Kodjo-Wayo has completed her dissertation research on "Biodegradation and Phytoremediation of Polycyclic Aromatic Hydrocarbons Using Mushroom Compost." The other candidate, Dawit Yifru, worked on "Phytoremediation and Enhanced Natural Attenuation of the Emergent Contaminant Perchlorate and N-



Nitrosodimethylamine As A Single and Co-Contaminants." Both candidates for doctoral degree in geology have interviewed exceptionally well and have received multiple job offers already. The contributions of Lina and Dawit in the development and evaluation of innovative, high-end and low cost technologies for bioremediation of pet-

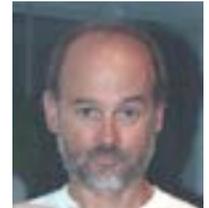
rochemicals and energetic compounds (perchlorate and NDMA) have been very well received nationally and internationally. Perchlorate and NDMA are both natural and anthropogenic emergent contaminants that have polluted the drinking water and food supplies of many municipalities. Katherine Schroer (doctoral candidate), continues to study the fate of nitrogen from a multi use USDA agricultural research field station in Watkinsville, Georgia. Kathy's research builds on the strong collaboration between the USEPA National Exposure Research Laboratory in Athens and our department. Kathy's study is affiliated with the nitrogen farming study underway at EPA/ORD. She plans to defend her dissertation and graduate in spring 2007. Liz Purvis's dissertation research focuses on the development of low-cost and sustainable clay based sorbents for filtration of perchlorate from contaminated drinking water, irrigation water, and wastewater. Liz has shown that organoclays are cost-effective for treatment of freshwater and wastewater. She has prepared and used organoclays to remove perchlorate from spent brine produced during the regeneration of perchlorate selective ion exchange resins and militarization/demilitarization wastewater. Jason Nail has finished his graduate course work and is the laboratory studying the abiotic degradation of aged residual explosives in soils using bulk reductants.

Last year was a memorable one for me. I went through the unpredictable process of promotion to full professor, while trying to assist two doctoral students complete their dissertation research and graduate in Spring 2006. The successes we realized

in both endeavors made it an especially memorable year. My research program is looking forward to another exciting year as we continue to orient our applied environmental research to benefit not only the Department of Defense, but also private industry, the state of Georgia and developing economies worldwide. To that end, I will be spending most of my summer in Africa working on a number of UGA international research and teaching initiatives. It will be exciting watching World Cup Soccer from Africa.

Alberto Patiño Douce

Over the last year, our collaboration with Mike Roden focused on the study of the behavior and history of the halogens in the terrestrial planets has borne its first fruit. A massive manuscript (35 printed pages!) is now in press in *Geochimica et Cosmochimica Acta*, in which we develop an innovative thermodynamic formalism to look at the interrelationships between halogens, oxygen and water in the terrestrial planets. The data on which the thermodynamic analysis is based are the compositions of phosphates (chiefly apatite and merrillite) that contain varying amounts of halogens and water. Among other findings, we show that the Martian mantle is dry and chlorine-poor and has probably been like this since at least 4 billion years ago, suggesting that the high concentrations of halogens measured by robotic missions have resided in the Martian surface since a very early major degassing event. We are now trying to get funding for a long-term project aimed at a more accurate characterization of the volatile contents of planetary phosphates, as we are convinced that phosphates are a largely untapped source of information about planetary interiors. As I wrote last year, I am also (and more slowly than I would like) developing applications of critical phase transition theory to Earth problems. I am still learning a lot and constantly being surprised by the incredible physical and mathematical richness of seemingly very simple models. I now have three PC's constantly churning numbers (the poor man's approach to 'parallel computing'), and this number will soon be more than doubled thanks to our good Michael Lewis and our surplus department. Perhaps next year I will be able to include some nice graphics in my update! With respect to our Study Abroad program in Argentina, we were not able to run it last year but we are going this summer, with a small but terrific group of students. Marta will tell you more about it, but stay tuned for the nice pictures when we get back.



Marta Patiño Douce

During the last year, my usual teaching duties have been complemented with a lot of work to launch the UGA Geology in Argentina Study Abroad Program. The hard work paid off and, yes, Argentina will be a reality this year. Alberto and I are gearing up for an exciting summer - or rather Southern Hemisphere winter. Our group is small but highly motivated. Three of our

students are Geology minors, and all are ready to immerse themselves in the study abroad experience and to attend the outdoors classroom. In the last newsletter I focused on the main portion of the program, a four week east-west transect of Argentina. It is time to uncover the optional Puna extension.



The Puna was the Inca's sacred final frontier... remote, harsh and incredibly beautiful. How harsh? There are places in the Puna where it has not rained since record keeping began, 150 years ago. Elevations start at 13,000 feet, so it is also bitterly cold. How remote? The place that will be our center of operations, Antofagasta de la Sierra, is a six hour drive from the nearest little town to the

South and nine hours drive from its only other neighboring village to the North. A four wheel drive vehicle and a strong network of locals are a must for the field areas that we will be working in. The Puna high plateau is a large crustal block that has been uplifted to average elevations of 15,000 feet by subduction of the Nazca Plate under the bend in the west coast of South America, between southern Peru and Northern Chile. In the Argentinean segment, the plateau is dotted by Pliocene and Holocene volcanoes towering to elevations of 23,000 feet. Latitude and cold Pacific Ocean currents conspire in providing very little humidity, which some of the tallest volcanoes sometimes capture as very thin veneers of snow. Perhaps the most exciting part of this program is a descent into the giant volcanic caldera of Cerro Galán. The caldera is 35 miles in diameter and its rim (which we have to drive over to get into the caldera) is at an elevation of almost 18,000 feet. When we did it two years ago we learned that you can drive in only one direction, as going the opposite way the slope is too steep to make it out of the

caldera. The effort is well worth it, as the faint track leads us to an unexpected green lake nestled in the caldera, beautiful exposures of the volcano's interior and massive ash flows, and awesome views of the Salar del Hombre Muerto (Dead Man's Salt Flat... an appropriate name?). Unfortunately, it will be winter in the Southern Hemisphere (the way it's supposed to be, you have the world upside down, down here), and we will be missing the flocks of flamingoes that populate the lake during the spring. To make up for this, there will be dozens of elusive herds of slender vicuñas (the wild relatives of the llamas), and if we are lucky, some suris (the aboriginal name for the South American relative of the ostrich). If all goes well, we will show you pictures in next year's newsletter.



Antofagasta de la Sierra, Argentina

Bruce Railsback

I was pleased to see Bethany Purdin finish her M.S. work and defend a thesis from which an important manuscript has been submitted to the Journal of Sedimentary Research. Here's why I



say "important": if almost anyone who has worked on geochemical signatures of sub-aerial exposure, or more generally on any characterization of layered rocks, reads that paper, they'll realize that it calls into question the validity of all their previous work. Unfortunately, that applies to my previous work too.

Meanwhile, graduate students in my Carbonate Petrology class completed a project following on Bethany's work, and we (fourteen authors) submitted a manuscript from that project too. On other fronts, my collaboration with George Brook continues: we have a paper in press about a huge stalagmite (the Georgia Giant) in Carlsbad Caverns, and a manuscript about a Chinese stalagmite is being circulated among co-authors hither and yon in preparation for submission. In teaching, I continue to annoy GEOL 1122 students by telling them that they're the genealogical descendants of pond scum, to frustrate Oceanography students by teaching about more than just whales and dolphins, and to befuddle graduate students with inscrutable diagrams that would confuse Rube Goldberg.

Mike Roden

This past year I ventured into unknown territory to host with Sam Swanson and Paul Schroeder the Georgia Geological Society meeting, which we ran out of Athens but centered on Elberton. We had about 100 professionals and students, and a number of Georgia faculty contributed stops or written contributions to the guidebook. Highlights included discussions of the petrology of the Elberton and Danburg granites by Sam Swanson, Jim Whitney, Doug Dvoracek, and Mike Roden, the ecology and hydrology of the Broad River by Jim Renner (M.S. 1989) and Bud Freeman (Georgia Museum Natural History), seismic constraints on the thickness of the Elberton (not too thick) by Rob



Hawman, metamorphic evolution of the gneisses of the Inner Piedmont by Alberto Patiño Douce, hydrogeology of the Elberton granite by John Dowd and Dave Wenner, weathering profiles developed on the Elberton granite by Paul Schroeder, petrology of the ultramafic rocks that make up the Russell Lake Allochthon by Ph.D. student Jeff Chaumba, and radon geochemistry of the Elberton granite by Rebecca Chenhall (UGA College of Family & Consumer Sciences). Papers recounting these discussions, teaching exercises written by Paul Schroeder and Sam Swanson, and a road log complete with obscure historical notes are available from the Georgia Geological Soci-

ety (Guidebook 25). Production of the guidebook itself mutated into an incredibly stressful activity courtesy of an odd interaction between my printer and Word but thanks to key plays by Paul Schroeder and Robert Phares we managed to get it printed with a few hours to spare. We had great weather and great stops including two spectacular quarry stops courtesy of Keystone Memorials and Starr Quarries.

This year I continued to collaborate with Alberto Patiño Douce on planetary and xenolith studies – the latter concerns very high pressure garnets (perhaps originally from the Earth's Transition Zone) in kimberlite xenoliths. These garnets are curious because they have exsolved minerals such as diopside, rutile and ilmenite much like the more familiar example of feldspar exsolution in perthite. One doesn't ordinarily think of garnet as exsolving other minerals but in this case the exsolution is a consequence of a very high pressure origin. This work is in press, in *Lithos*. The planetary project is focused on phosphate equilibria in meteorites – in many meteorites two phosphates, apatite and volatile-free merrillite, coexist and buffer the partial pressures of fluorine, chlorine and water. In turn this allows us to infer the volatile budgets of the parent bodies which include the Moon and Mars. There are more details in Alberto's note, and a paper will be out shortly in *Geochimica*. A key player in this project is Ph.D. student, Steve Clark, co-supervised by Alberto and me, who will carry out much of the analytical work on this project.

Paul Schroeder

We are now entering the 4th year of the Microbial Observatory in the Uzon Caldera (Kamchatka, Russia). My graduate student Jennifer Kyle completed her M.S. work on biomineralization at Uzon, and is now pursuing a Ph.D. at the University of Toronto, where she will focus on hyperthermophilic viruses and their role in fashioning the Earth's rock record. My work in Turkey with Professor Isik Ece continues. Professor Ece (now Adjunct Faculty in the UGA Geology Department) and I are looking at a new round of funding from TUBATEK (Turkish National Science Foundation) to expand studies on alunite and halloysite throughout Turkey. Mike Smiley, who finished his senior thesis at UGA on age dating of the Turkish deposits, interned for a year at Schlumberger-Doll, in Ridgefield, Connecticut and is now an M.S. student at West Virginia University. I am continuing collaboration with Dr. Glenn Stracher, looking at the global aspects of coal fire deposits. We'll be running a field trip to the coal fires in Centralia, Pennsylvania during the 2006 GSA meeting. Finally, my Ph.D. student Jay Austin has successfully passed his oral and written exams and is now researching carbon isotope sequestration systematics in minerals from both paleosols and modern soils. Jay and his wife Kim have a new baby girl, Amanda. I will be moving from my role as Graduate Coordinator



to Associate Head and look forward to helping the Geology Department grow.

Sam Swanson

My research continues on a variety of topics ranging from ultramafic rocks to volcanoes to granites to archaeopetrology. Bob Hatcher invited me to contribute a paper on ultramafic rocks in the Blue Ridge to his Carolina Geological Society Guidebook last fall. Loren Raymond, Rich Warner, and I pulled together a story on chromites in ultramafic rocks from several terranes. We followed this with a paper at SE GSA in Knoxville. A manuscript on chromite in ultramafic rocks from the Spruce Pine area was submitted to Canadian Mineralogist this year. I also contributed to several other abstracts at Knoxville on ultramafic rocks. A small grant to collect some INAA data on ultramafic rocks was approved this spring.



My work with volcanoes continues. The current eruption of Augustine Volcano in Alaska provided an opportunity to revise our introductory geology lab exercise on volcanic hazards (I am still coordinating these labs). I also presented a Journal Club on the eruptions of Augustine Volcano. I was invited to submit a manuscript about sulfur in the 1989/90 eruption of Redoubt Volcano in

Alaska to a special issue of Journal of Volcanology and Geothermal Research.

UGA hosted the Georgia Geological Society last fall on a trip to the Elberton Batholith. I contributed to the guidebook and to a couple of the stops. My Earth Materials class (GEOL 3010) came along on the trip and had a good time trying to identify various minerals in the granite and various granites on the cutting shed spoil piles. My wife, Ruthann, and I contributed a paper on textural perception in granites and we ran an exercise as part of the field trip. We hope to write-up these results this summer. Jeff Reid (Ph.D., 1981) asked me to contribute a paper to the 42nd Forum on Industrial Minerals to be held in Asheville in May. I prepared a poster on the contribution of textures to the utility of the Spruce Pine granites.

Archaeopetrology (I think I made-up a word), that is the petrology of stony archaeological materials, takes up a lot of my time these days. My current student, Rhonda Cranfill, defends her thesis this spring. Rhonda studied Spanish ceramics from colonial Maryland (just what is Spanish ceramic doing in an English colony?). Next fall a new student, Cynthia Ann Hotujec, will start work with me. She wants to work on turquoise; that should be interesting! I continue my studies of artifacts from the Etowah Mounds site. I made a presentation at SE GSA in Biloxi on this work last year. This spring I made a couple of collecting trips to the northwest Georgia to collect potential source rocks for some of these artifacts. My work with soapstone continues. This year a manuscript was submitted on the sourcing of Nigerian soapstone. Studies on soapstone from Maryland started

this year and work continues on Georgia and North Carolina soapstone. I am also working with several other students on various topics including Roman lead and slag, and chert from Mexico.

Next spring SE GSA will be back in Georgia. The good folks at Georgia Southern are hosting the meeting and had the good sense to hold the meeting in Savannah. They asked me to organize some sort of session for the meeting (it will probably be some sort of generic petrology session). Hope to see you there!

Sally Walker

Taking to the tropics to avert the temperate-zone chill, Dr. Sally E. Walker enjoyed working with her Master's student, Eric Wy-song, on the balmy shores of San Salvador, Bahamas, in January and June of 2005. Eric, with a surfeit of grant money, is studying the effects of hurricanes on molluscan-sediment distribution, and has just finished identifying his millionth shell, and he's overjoyed!

In early 2006, Dr. Walker jetted off to Lee Stocking Island, Bahamas, and enjoyed diving off the Exuma wall, which plunges a mile or so in water depth, with Phil Santos and Craig Caddigan, two remarkable sub-pilots of the Johnson Sea-Link hailing from the Harbor Branch Oceanographic Institution. Along with the great crew of the R/V Seward-Johnson, it was a very successful mission. We collected all experimental arrays from all depths, despite two major hurricanes that had hit the area. The Shelf-Slope-Experimental-Taphonomy Initiative (SSETI), co-created by Dr. Eric Powell (Rutgers) and Sally Walker (UGA) and now run by Dr. Karla Parsons-Hubbard (Oberlin), represents the longest-running taphonomic experiment encompassing shelf-to-slope environments: 12 years thus far. Students and professors from four universities cataloged taphonomic data from thousands of shells, and had little time to enjoy the January sunshine. Remember, when a marine biologist or paleobiologist sees the ocean, they can't think of holidays.



Emeritus News

Gilles Allard

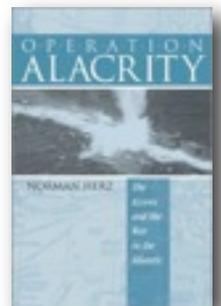
Gilles is busier than ever and enjoying the life of an emeritus professor. He spends a lot of time preparing lectures for various groups. Every year he gives a lecture and north campus field trip to a Conservation Class in the School of Environmental Design. He also gives to many beginning classes his "Mineral Resources and Your Daily Life" lecture. Many months in 2005 were spent preparing lectures for a private jet cruise which took 62 rich tourists from London to Libya, Jordan, India, Cambodia, Laos, China, Tibet, and Armenia. The lecture on plate tectonics suggested that the trip was following major plate boundaries with the danger of earthquakes along the innumerable Himalayan faults. The October 8 Pakistan earthquake, which killed 80,000 people, made all these tourists believers of Gilles' geological knowledge and divine connections. This greatly increased the interest and attention in the next lectures. The trip titled "Lost Cities" brought us to great archeological and historical sites. Upon the return, Gilles gave a course titled Geology for Tourists to 25 retirees, members of a group called L.I.R. (Learning in Retirement). In April 2006 a course will be given to the same group on the Geology of the Southeast and Georgia.

In his spare time, Gilles continues to be the Secretary-Treasurer of the Athens Torch Club, which he has led since 1992, taking it to be the largest club in the U.S. out of 70 clubs. Gilles is a director of the Lac Dore Mining Co., a subsidiary of McKenzie Bay International, Limited. Lac Dore owns the vanadium deposit in Chibougamau which he discovered in 1966. The feasibility has been done and we are looking for a buyer or an investor with hundreds of millions to open the mine and build a mill...not an easy task.

Thanks to all those alumni who have contributed and continue to do so to the Gilles and Bernadette Allard Geology Award Fund which was created by Jeff Reid after Gilles' retirement in 1991. The fund helps graduate students with their field expenses. So far, seven students have received around \$1000. each. Please join Gilles in your contribution to that good cause.

Norm Herz

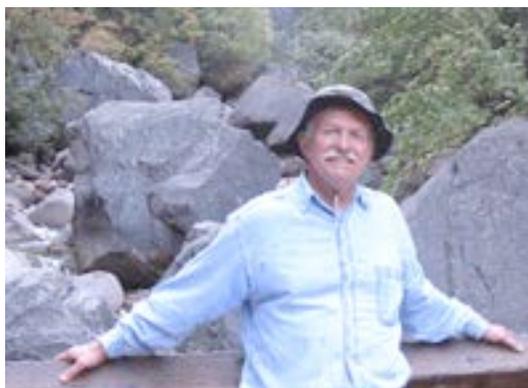
The hottest news item for me: The Portuguese Tribune in California declared "Operation Alacrity", my book on a secret operation to the Azores in World War II, as the "Book of the Year".



After that trip, Dr. Walker was very honored to attend a celebration of Dr. Ken McKinney's life and research at the Knoxville southeastern GSA in March 2006. It was a wonderful event, with many informative talks that were inspired by his work. Returning from Knoxville, Sally tried to bum a first-class ticket to Bermuda to collect data on the effect of Hurricane Fabian on the nearly-extinct land hermit crab. Those hermits have marginally lived by the seat of their claws using fossil shells (see a Stephen Jay Gould article in Natural History magazine and Walker 1994). She was aghast by how much Hurricane Fabian had greatly altered part of their habitat, and it is only going to get worse with sea-level rise. All these studies Dr. Walker participates in are related to fossil preservation (called taphonomy). Whether it is studying encrusting and bioeroding organisms on shells, or hermit crabs that use shells, her work helps to shed light on paleoenvironmental analysis, paleobiodiversity, and shell-carbonate recycling in marine habitats.

Dave Wenner

In the last alumni newsletter, I described how our local watershed group, the Upper Oconee Watershed Network, discovered that several streams at the State Botanical Garden of Georgia were contaminated by nitrate that originated from several adjacent university-owned farms. This finding has spurred a number of studies by different scientists from here on campus as well as the Environmental Protection Agency. At the present time, more detailed groundwater studies are ongoing. Also, people from environmental engineering are designing a wetland to reduce the nitrate levels in these streams before they enter the Middle Fork of the Oconee River. This site has also become a focus for various teaching programs. About a month ago, I lead a group of students in my environmental chemistry class to sample the stream and ran into several ecology classes that were also studying the diversity of aquatic insects. It seems that a number of aquatic insects like living in streams with high nitrate levels. The students measured an unusually high diversity of aquatic insects. I am happy that our discovery, although disconcerting, has provided such a unique, natural laboratory for our students.



Student Accomplishments

Noel Heim

Awarded a 3-year STAR Fellowship from the Environmental Protection Agency.

Advisor: Steven Holland

C.J. Jackson

Received Thomas Mettillie Student Award from the Georgia Urban and Regional Information Systems Association.

Research grant awarded by GAView (<http://www.westga.edu/~gaview/>) to perform a high-resolution shoreline change study along Jekyll Island.

Presented a poster entitled "Assessment of Back-barrier and Estuarine Shoreline Erosion for Resource Management: Cumberland Island National Seashore, Georgia" at the Southeastern meeting of ASPRS (American Society of Photogrammetry and Remote Sensing) here at UGA. The poster won an award as best graduate poster, entailing a 1 year membership in the national ASPRS and they a check for \$100.

Jackson, C.W., 2006. Historical Back-barrier Shoreline Changes Along Cumberland Island, Georgia 1857 to 2002. Report for the National Park Service, Cumberland Island National Seashore, St. Marys, Georgia.

Advisor: Clark R. Alexander, Jr. (Skidaway Institute of Oceanography)

Chris Kelson

Research funding from Placer Dome U.S., Inc. and the Cortez Joint Venture

Received Dissertation Completion Award from the Graduate School, University of Georgia

Received University Outstanding Teaching Assistant Award

Kelson, C.R., Crowe, D.E., and Stein, H.J., 2005, Geochronology and geochemistry of the Hilltop, Lewis, and Bullion mining districts, Battle Mountain – Eureka trend, Nevada: Geological Society of America Abstracts with Programs, v. 37, no. 7.

Kelson, C.R., 2005, Interpretive Summary of Research: Zone 2-Northern Shoshone Range Mineralization, Lander County, Nevada; Placer Dome U.S., Inc. unpublished in-house report, 49 p.

Kelson, C.R., Crowe, D.E., and Stein, H.J., 2005, Geochronology and geochemical study of part of the Battle Mountain – Eureka trend, Nevada: *Geochimica et Cosmochimica Acta*, v. 69, no. 10S, A567.

Kelson, C. R., Crowe, D. E., and Stein, H. J., 2005, Geochronology and geochemistry of the Hilltop, Lewis, and Bullion mining districts and surrounding area, Battle Mountain-Eureka trend, Nevada, in Rhoden, H.N., Steininger, R.C., and Vikre, P.G., eds., Geological Society of Nevada Symposium 2005: Window to the World, Reno, Nevada, May 2005, p. 25-42.

Kelson, C.R., and Crowe, D.E., 2004, Origin and significance of melnikovite pyrite from the Hilltop gold deposit, Lander County, Nevada: Geological Society of America Abstracts with Programs, v. 36, no. 5, p. 354.

Advisor: Doug Crowe

Karen Layou

Dissertation Completion Award from the Graduate School, University of Georgia

Received University Outstanding Teaching Assistant Award

Layou, K.M. and Holland, S.M. 2005. Bringing up beta: examining the effects of extinction on diversity with an additive partitioning model. *GSA Abstracts with Programs* 37(7): 461.

Layou, K.M. and Holland, S.M. 2005. Examining the effects of extinction on diversity with null models: bringing up beta. *Earth System Processes 2 Abstracts with Programs* 1: 54.

Layou, K.M. and Holland, S.M. 2004. A quantitative null model of expected changes in ecological community structure following an extinction. *GSA Abstracts with Programs* 36(5): 312.

Heim, N.A., Layou, K.M., Railsback, L.B., Holland, S.M., Cox, J., and Crowe, D. 2004. Geochemical evidence of subaerial exposure at parasequence boundaries in Middle Ordovician limestones from the Nashville Dome, Tennessee, U.S.A. *GSA Abstracts with Programs* 36(5): 76.

Advisor: Steven Holland

Kathy Schroer

Research grants awarded by Sigma Xi for "Tracer study to determine biogeochemical controls on the fate of nitrate along a ground-water to surface-water flow path", and by GSA for "Use of stable isotopes to track N cycling along two adjacent wetland streams draining an agricultural field". Received travel grants to present at national meetings from GSA and the UGA Graduate School.

Presented poster sessions at GSA entitled, "Distribution of N and other redox-sensitive species in two adjacent wetland streams draining an agricultural field in the Georgia Piedmont" and at USDA/CSREES National Water Conference, entitled "Use of tracer injection experiments to quantify nitrate loss in

two adjacent wetland streams draining an agricultural field in the Georgia Piedmont”.

Advisor: Valentine Nzengung

Sheldon Skaggs

Research grants awarded by Sigma Xi for “An Isotopic Study of Defixiones from Carthage”

Press coverage in the Rome News-Tribune on a ground-penetrating radar study with Jessica Cook:

http://news.mywebpal.com/news_tool_v2.cfm?pnpid=680&show=archivedetails&ArchiveID=1164569&om=1

http://news.mywebpal.com/news_tool_v2.cfm?pnpid=680&show=archivedetails&ArchiveID=1161300&om=1

http://news.mywebpal.com/news_tool_v2.cfm?pnpid=680&show=archivedetails&ArchiveID=1157197&om=1

Advisor: Sam Swanson

Eric Wysong

Research grants awarded by GSA and the Paleontological Society for “Hurricane effects on molluscan death assemblages and their facies, San Salvador, Bahamas”.

Advisor: Sally Walker



Graduate student Eric Wysong on Sal Salvador, The Bahamas

Graduate Theses & Dissertations: 2004-2006

2004

Vanese Flood, M.S., “Coral Community Structure and Abiotic Controls on Reefs in Castle Harbour, Bermuda”, Advisor: Ray Freeman-Lynde

William Veal, M.S., “Mineralogy of the Peraluminous Spruce Pine Plutonic Suite, Mitchell, Avery, and Yancey Counties, North Carolina”, Advisor: Sam Swanson

2005

Jennifer Kyle, M.S., “Mineral-Microbe Interactions and Biomineralization of Siliceous Sinters and Underlying Rock from Jenn’s Pools in the Uzon Caldera, Kamchatka, Russia”, Advisor: Paul Schroeder

Bethany J. Purdin, M.S., “Isotopic and Elemental Evidence for Subaerial Exposure and Meteoric Diagenesis in the Nashville Dome, Tennessee: A New Approach to Sampling Exposure Surfaces”, Advisor: Bruce Railsback

Nathaniel Toll, M.S., “Barometric Fluctuation Removal in Water Level Records and Solutions to Flow in Aquifers During Sinusoidal Aquifer Pumping Tests”, Advisor: Todd Rasmussen (Warren School of Forestry and Natural Resources)

Drew C. Mirante, Ph.D., “Partial Melting and Migmatization of Metamorphic Terrane in Northeast Georgia: The Athens Gneiss: Experimental Constraints on the Timing and Nature of Metamorphism”, Advisor: Alberto Patiño Douce

2006

Mary Rhonda Cranfill, M.S., “Colonial Ceramic Wares: Comparison Based on Mineralogical, Petrological, and Compositional Data”, Advisor: Sam Swanson

Elizabeth R. Hollingsworth, M.S., “Elemental and Isotopic Chemistry of the Uzon Caldera: The Evolution of Thermal Waters, Gas, and Mineral Precipitation”, Advisor: Doug Crowe

Chris R. Kelson, Ph.D., “Geochemical and Geochronological Constraints on Mineralization within the Hilltop, Lewis, and Bullion Mining Districts, Battle Mountain-Eureka Trend, Nevada”, Advisor: Doug Crowe

Dawit Yifru, Ph.D., “Phytoremediation and Enhanced Natural Attenuation of the Emergent Contaminants Perchlorate and N-Nitrosodimethylamine as a Single and Co-Contaminants”, Advisor: Valentine Nzengung

Lina K. Kodjo-Wayo, Ph.D., “Biodegradation and Phytoremediation of Polycyclic Aromatic Hydrocarbons Using Mushroom Compost”, Advisor: Valentine Nzengung



Dr. Chris Kelson holds a gold bar produced at Cortez Gold Mines, Nevada. The bar contains 829 troy oz of gold and weighs of 65 pounds. On the date this photo was taken, 9 August 2005, this bar was valued at \$356,000.

Dr. Kelson successfully defended his dissertation this spring.

Departmental Awards to Graduate Students

Allard Fund

Christian Schrader

Berg Award

Scott Baker

Wheeler-Watts Fund: Research

Jessica Cook: Roman Bronze Casting at Aventicum in the 2nd Century AD

Joey McKinnon: Determining Mechanisms and Residence Times of Shallow Subsurface Runoff Generated by Large Precipitation Events

Jason Nail: Kinetic and Mineralogical Constraints of Abiotic Treatment of 2, 4, 60 Trinitrotoluene Contaminated Soils

Elizabeth Purvis: Use of Tailored Clays for Treatment of Perchlorate Contaminated Water

Christian Schrader: Determination of Halogen Behavior, Source Material, and P-T-a(H₂O) Melting Conditions for Early Extension-Related Alkaline Magmas, Trans-Pecos Magmatic Province, TX

Michelle Trogdon: Prehistoric Chert Quarries in Oaxaca, Mexico and Implications on Stone Tool Production: A Geochemical Approach

Michelle Trogdon: A Geologic Survey of Oaxaca, Mexico and Implications on Stone Tool Production

Wheeler-Watts Fund: Travel

Monica Carroll: Records of River Variation in the Shells of Freshwater Bivalves (AGU Annual Meeting)

Jessica Cook: Bronze Casting at Roman Aventicum in the 2nd Century AD (Maymester, Switzerland)

Chris Kelson: Geochronology and Geochemistry of the Hilltop, Lewis, and Bullion Mining Districts, Battle Mountain-Eureka Trend, Nevada (GSA Annual Meeting)

Karen Layou: Bringing Up Beta: Examining the Effects of Extinction on Diversity with an Additive Partitioning Model (GSA Annual Meeting)

Karen Layou: Lasting Effects of Extinction and Invasion on Community Structure: A Deep-time Perspective (Ecological Society of America Annual Meeting)

Bethany Purdin: Significance of $\delta^{13}\text{C}$, $\delta^{18}\text{O}$, and Strontium Content in the Identification of Surfaces of Subaerial Exposure in Ordovician Limestones of the Nashville, Dome, TN (GSA Annual Meeting)

Christian Schrader: Fluorine and Chlorine Behavior in Alkaline Rocks of the Big Bend Region, Texas (South-Central GSA Meeting)

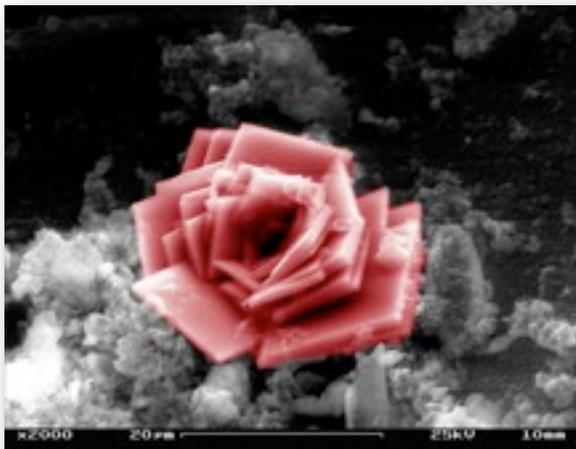
Katherine Schroer: Use of Tracer Injection Experiments to Quantify Nitrate Loss in Two Adjacent Wetland Streams Draining an Agricultural Field in the Georgia Piedmont (USDA/CSREES National Water Conference)

Sheldon Skaggs: Two Roman Metal Studies at UGA (Developing International Geoarchaeology)

Sheldon Skaggs: Initial Results from an Isotopic Study of Deixiones from Carthage (36th International Symposium for Archaeometry)

Michelle Trogdon: A Geological Survey of Prehistoric Quarries in Oaxaca, Mexico and Implications on Stone Tool Production (Developing International Geoarchaeology)

Lina Wayo: Bioremediation of Petroleum Hydrocarbons Using Compost Amendments and Phytoremediation (GSA Annual Meeting)



Barite rose (color-enhanced) surrounded by opal-A. Image taken by Jennifer Kyle (M.S. 2005)

Field Schools

Geology Field School - a look back at interesting places...



Mapping Nasty Knob on Twin Mountain



Exploring mine tailings



Staying at the Abbey



The charm of Cañon City

challenges...



Rattlesnakes



Getting stuck



Cholla

faculty...



Mike Roden



Diane Kamola



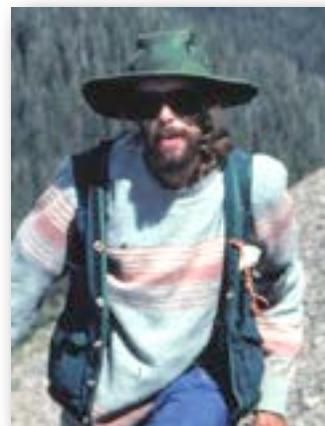
Doug Crowe



Steve Holland



Hatten Howard



Chris Fleisher

friends...



Mackie McGriff McIntosh, Will McIntosh, Kim Deal Seelos, and Robert Humphries



Sean Curran, John Jordan, Chris Fleisher, Matt Schirmer, and Mike Bailey



Justin Ball juggling on the Hogback



Michelle Anderson at Dead Horse Point, Utah



Dave Drohan and William McIntosh mapping the Dakota Hogback

and more friends



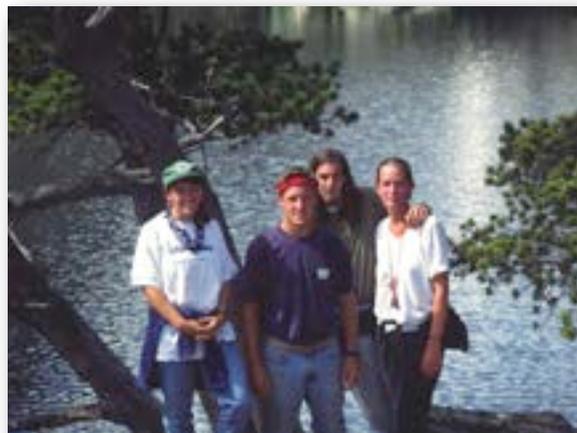
Mike Bailey, Amy Hardy, Frank Leith, and two Old Dominion students at Andrew's Tarn



Shawn Hall on the Dakota Hogback



Jane Marshall, Chris Fleisher, and three geology students



Allison Lowry, John Jordan, Mike Bailey and Amy Hardy at Rocky Mountain National Park



Alan Peoples in Red Rock Park

Honors Interdisciplinary Field School

We had another successful summer, albeit with fewer students than normal. This eight week program offers undergraduate students a semester's worth of credit in geology, ecology, anthropology, and physical education. A number of individuals from different departments have taught in this program for years, including Paul Schroeder, Jim and Sandy Whitney, and alumnus Joe and Nikki Elkins. The fact that Joe and Nikki have gone on to establish a similar program at Bowling Green State University in Ohio is something we all are proud of. To give you a flavor of how we manage to teach under such difficult circumstances, check the pictures of Joe Elkins lecturing. Tough teaching assignment, huh!

- Dave Wenner



Joe Elkins lecturing at Point Reyes, California



Joe Elkins lecturing at Glacier Point, Yosemite National Park, California

Geology Field Trips



Geology students Heath McGregor (L), Steve Clark, and Jeffrey Ezell (R) measuring stream discharge in GEOL 3020, Surficial Processes in Fall, 2005.



Students in GEOL 4010 listening to a lecture at Monteagle Mountain, Tennessee in 1998. From left to right, Chris Vanags, Mackie McGriff, Josh Hoge (partially hidden), Steven Holland (back to camera).



Riding the Sapelo Queen ferry to Sapelo Island for a 1998 GEOL 4010 (Life, Environments, and Ecologies of the Past) field trip. From left to right, Eric Davis, Jay Hopkins, Will McIntosh, Mackie McGriff, Angie Bryan, Josh Hoge, April Durham, Rachel Nottingham, and Joey Persechetti.



Introductory Geology (GEOL 1121) students on a coastal field trip led by R.D. Dallmeyer (front, center, on one knee), early in Spring Semester, 2006

Alumni / Alumnae

Tom Algeo (M.S., 1985)

A major focus of my research for the past two years has been the Permian-Triassic boundary (PTB). My goal is to better understand the underlying causes of this event horizon through multiproxy chemostratigraphic analysis of key boundary sections in China, Vietnam, India, New Zealand, Canada, and elsewhere. As part of this project, I attended an international symposium on the PTB in Chaohu, China, in May 2005, visited the PTB Global Stratotype Section and Point (GSSP) at Meishan (around which the Chinese have built a 'geopark'), and undertook field work on PTB sections in Guizhou (see photo below). At present, I am co-editing two theme issues of the journal *Palaeogeography Palaeoclimatology Palaeoecology*, one on the PTB and the other on Precambrian and Paleozoic sea-water chemistry (both slated for publication in early 2007). A second research initiative involves reassessment of widely used geochemical proxies, in particular, Mo as a paleoredox proxy and $C_{org}:P$ ratios as a paleoproductivity proxy. If you have any interest in exploring these topics, please visit my website, where most of my publications are available as PDFs: <http://homepages.uc.edu/~algeot/>. My two sons, Nicholas and Matthew, are now 5 1/2 and 2 1/2 years old; I am still mulling over when to give them their first rock hammers. Friends are encouraged to email me at: Thomas.Algeo@uc.edu



Jessica (Allen) Allulee (M.S., 2003)

I am getting my Ph.D. at the University of Utah. I will be working on sedimentation controls (i.e. tectonic, eustasy and climate) on the Straight Cliffs in Southern Utah. They preserve exposed marine to non-marine facies transitions so it will be interesting to see how the two are related. I am planning on spending most of the summer in the field.

Dan Askren (Ph.D., 1992)

I continue to teach geology at Georgia Southwestern State University, and I continue to vainly look for a bit of time to get some field work done between classes and never-ending department chair administrative duties. With a bit of luck, I'll be at Savannah's Southeast GSA meeting in 2007 with a student to present some data.

David Bacchus (B.S., 1976)

I began my Geology career while in college by working on oil rigs, doing rough neck and derrickman duties. I was terrible with rig machines. After mud logging for a short time I joined a small Oil and Gas Exploration Company in Houston Texas, Prairie Producing Company. This small company gave me the opportunity to work in several areas of petroleum geology including exploration prospect mapping, well site geology, formation sample identification, whole core description, well log analysis and field legal hearings. I enjoyed the challenge of working from Texas to Florida evaluating both siliciclastic and carbonate formations for oil and gas. During the late 1980's and 1990's the company I worked for was purchased twice, first by Placer Dome Mining Company of Canada, then by UNOCAL. These companies presented me the opportunity to work internationally and evaluate reservoirs in many basins around the world. In 2000, after a busy 19 years I decided to apply with Saudi Aramco and made the exciting move to the Middle East with my wife Beverly and son Adam. The amazing thing is that while being here for just a few months I kept noticing a guy who looked just like my Geology Lab Instructor from back when I attended UGA some 25 years earlier. It was Marty Robinson! I always remembered him from lab because of his interesting classes and great attitude. It is always nice to run into another UGA alumni. Currently I work with several geological teams including paleontologists and sedimentologist applying electrofacies from wireline logs in order to assist the update of field reservoir layers and to project lithofacies and biofacies beyond cored wells.

Mike Bailey (B.S., 1994)

(Sent by Mackie McIntosh) Mike Bailey is a senior geologist in the geology section of the Corps of Engineers at Savannah. He is a registered PG in Georgia and South Carolina and is involved in Savannah District's Dam Safety Program with an emphasis on seismic evaluation of concrete and earthen dams. Mike is the resident expert on in situ testing equipment for geotechnical investigations including cone penetration testing (CPT), piezocone (CPTu), and a variety of other direct-sensing tools. He recently coordinated our response to the New Orleans area to perform vane-shear and CPT work on some of the levees that are currently under construction. Mike has also worked extensively on contaminated soil and ground-water assess-

ments, materials characterization for harbor expansion, and hydrogeologic modeling. Mike's wife, Jenn Brofft Bailey (a post-doc at Skidaway Institute of Oceanography) is pregnant with their first child, due in July.

Daphne Owens Battle (M.S., 1997)

I am married to Daniel Battle, former assistant manager of the Georgia Archaeological Site Files at UGA. We have a daughter, Scarlett Carolina Battle, born 4/1/05. Although prematurely born, she just turned 1 year old and is doing what all curious children her age do her. Jennifer (Diaz) Hardy and her family came from Jacksonville to help us celebrate at her party (Jennifer's son, Joshua, and Scarlett are in the photo below). We have our own archaeological consulting company, Cypress Cultural Consultants, that has been in business for 5 years. In addition, we have bought 6 acres on Coosaw Island, South Carolina where we are currently building our house.



Sam Bentley (M.S., 1992)

My wife and three kids (wife Fiona, daughter Taylor 16, and sons Jack 10 and Rory 8) are all doing great. I will be leaving LSU this summer, and our family will move to St. John's Newfoundland, Canada. I will be taking up a tenured associate professorship in the Earth Sciences Department at Memorial University of Newfoundland (www.esd.mun.ca), where I will be the Canada Research Chair in Seabed Processes and Seabed Imaging. There I will continue my research on the evolution of continental margin sedimentary cover in collaboration with the NSF Margins Source to Sink program, studies of animal-sediment interactions (with Duncan McIlroy, ichnologist), fluid mud dynamics (still doing work on the Louisiana coast), and will begin collaborating with Canadian researchers looking at river-ocean interactions in the Canadian Arctic.

Polly Bouker (M.S., 1996)

After teaching for Georgia Perimeter College in Lawrenceville for 5 years, I will be beginning a Geology program at the Rockdale/Newton campus of GPC in Fall, 2006. This will be the first that any geology has been offered at that location.

During 2005-2006, I received the Outstanding Faculty Teaching and Service Award for the Lawrenceville Campus, and the NI-

SOD award for Excellence in Community College Teaching.

I (along with 2 other colleagues) am currently working with Rockdale County Schools to start an program for additional training in the sciences for middle school teachers.

Angie Bryan (B.S., 1999)

(Sent by Mackie McIntosh) Angie moved to Savannah about five years ago. Soon after graduating, she decided geology wasn't her thing and pursued a career in banking. She has been working for SunTrust for a number of years now and is currently the branch manager for the Skidaway Island Branch. William, she, and I are still buddies and love living down here in Savannah. She is still the biggest diehard Dawg fan I know. You should see her tailgating set-up!

Anna Butler (B.S., 1976)

(Sent by Mackie McIntosh) Anna Butler is a senior geologist in the geology section at U.S. Army Corps of Engineers, Savannah District. She is a registered PG and works extensively on contaminated soil and ground-water investigations. She says that Bob O'Kelley was her T.A. for her freshman geology course at UGA. When he hired her, he still had grade books with her name in them! She lives on Tybee Island and loves sea-kayaking.

Scott Chase (M.S., 1986)

Presently I am a Property Subrogation Director with St. Paul Travelers, based in Waukesha, Wisconsin. My wife Terese and I have two daughters Jocelyn (born 8/2/00) and Julia Ann (born 6/7/02). Please give our regards to Dr. Allard. Go Dawgs!!!!

Matthew Delano (B.S., 1984)

(Sent by Mackie McIntosh) Matthew is the chief of the Geology / Hydrogeology and HTRW Design Section at U.S. Army Corps of Engineers, Savannah District.

Jonathan (Jon) Dial (B.S., 1980)

I've hung up my rock pick after working for 14 years in the exploration industry, including Tenneco Minerals, ACNC/INCO and Battle Mountain Gold. I spent several years working on my farm which has been in our family for over 140 years. When my health insurance cost more than my house payment, I looked for something else and started at Sam's Club in Snellville, stayed there for 2 years, then went into management and was a merchandise manger in Tucker, Georgia. Since July of 2004, my home away from home has been the Sam's Club in Athens, Georgia!! To all of the Alumni still in the area, come and see me! I see Dr. Mark Rich in there weekly!

Mack Duncan (B.S., 1968)

I spent the last year working on a cross-functional innovation team at J. M. Huber Corp., which does kaolin mining in middle Georgia. My office is still near Thomson and I would love to hear from other alumni. Home phone: 706-595-4643; Office phone: 706-547-4302.

Margaret Fraiser (B.S., 1998)

I will be starting as an Assistant Professor in the Department of Geosciences at the University of Wisconsin-Milwaukee in August.

Deirdra (Dee Dee Cantrell) Hahn (B.S., 1998)

I am employed by the Alabama Department of Environmental Management as a geologist / hydrogeologist and am currently focused on Alabama's Voluntary Cleanup Program, Drycleaning Environmental Response Trust Fund, State Groundwater Act sites, and former Department of Defense sites undergoing the Base Realignment and Closure process. I utilize guidance issued from the U.S. EPA Regions 4 and 9, CERCLA, RCRA, various Risk Assessment tools, and the Alabama Administrative Code for site characterization, assessment, and remediation decisions (Rob Hawman - I sure wish I had taken geophysics now!). When I'm not carrying the weight of Alabama's past and present industrial/military environmental concerns, I enjoy attending The Acoustic Café in Hayden, Alabama (newgrass!) and finding other musical gems, such as seeing Les Paul perform at the Iridium Jazz Club in New York (photo below).



Tori Hanson (B.S., 2003)

After graduating from UGA in 2003, I moved to Chicago to study vertebrate paleontology at the University of Chicago. I received my Master's degree in December 2005 and decided to take some time away from grad school to explore career options outside of academia. I am currently involved with the nonprofit organization Project Exploration, teaching geology and paleontology for Sisters4Science, a program geared toward city girls with an interest in science. I'm also working as

an assistant editor for a University of Chicago publishing office. In personal news, I got engaged in June 2005 and am thrilled to be getting married this summer at the Fernbank Museum of Natural History--for obvious reasons, one of my favorite spots in Atlanta!

Stephen Harper (Ph.D., 1996)

I am now Director of the North Carolina System-wide Summer Geology Field Course, which is operated on a year-around basis out of East Carolina University Department of Geology.

Gene Hartley (B.S. 1967, M.S. 1971)

I am doing a small amount of consulting work starting aggregate and industrial minerals quarries. I am currently starting a large limestone mine in Tennessee and doing some consulting for a French company. I was able to apply my nine years of geology studies at UGA well although I did not finish the Ph.D. For the past 34 years I have been doing minerals exploration all over the world, mainly in Russia, Ukraine, China, Switzerland, Italy and many states in the U.S. especially Utah, Alabama, Tennessee, Washington and Nevada. The result has been the startup of 17 mines and quarries. Usually, I did the exploration, evaluation, zoning battles, oversaw the permitting, designed the RR spurs, helped design the plant and relinquished control when the operator or buyer took over. Large mining companies now operate most of these. I am in single now and in good health. I am living a quiet life in new house with a garden and large workshop on the south side of Birmingham, Alabama. I am not traveling every week as I did for most of my life; however, I still enjoy traveling mainly to Switzerland and northern Italy where I have made dozens of trips in the past 15 years. I know that area well. Call or stop by 769 Lake Crest Drive, Hoover, AL 35226, Telephone 205-988-9933 and Cell 205-266-0991. It would be nice to discuss European train travel and our infamous beer parties of the late 60's and early 70's in Athens. Keep me in mind for UGA Geology events and parties.

John Hayden (B.S., 1985)

I was appointed 2006-07 Chairman of the Construction Materials and Aggregates Committee of the Society for Mining, Metallurgy and Exploration (SME). I still commute to the red rocks of Utah every other week to see my wife. For our last anniversary we went to Zermatt, Switzerland to see the Matterhorn. I am always impressed to see textbook geology in person!

Robert Kaufmann (B.S. 1979, M.S. 1981)

I'm living in Houston, Texas and work for Chevron Corp. I work as a development petroleum geologist on a multidiscipline team, consisting of geologist, operations engineer and reservoir engineer. Our job is to generate new drilling and uphole workover opportunities in Chevron-operated oil and gas

fields of the Wind River and Greater Green River Basins of central and southwest Wyoming.

Deborah Keene (Ph.D., 2002) and Fred Andrus (Ph.D., 2000)

We were married in 2003, while Fred completed a post-doc at the Savannah River Ecology Lab and Deborah was an archaeologist for the South Carolina Institute of Archaeology and Anthropology at USC in Columbia. In 2004 we moved to Tuscaloosa, Alabama. We both work at the University of Alabama where Fred is in the Department of Geological Sciences and Deborah is in the Blount Undergraduate Initiative and the Alabama Museum of Natural History. We are happy to say that we are now expecting our first child in July.

Fred is still conducting research into El Niño-related climate in Peru, now focusing on radiocarbon records of upwelling. He has also been conducting submersible-based research into deep water corals as paleoclimate proxies. Other projects range from reconstructing Cretaceous shallow marine paleoenvironments to documenting anthropogenic impacts on salinity in coastal regions of the Gulf of Mexico.

Deborah continues her research into late prehistoric occupation of the Georgia coast through excavations at the Grove's Creek Site and analysis of artifacts and faunal remains recovered there. She has recently begun elemental analysis of copper artifacts from several southeastern U.S. sites to assess origin.

Gayle Levy (M.S., 2003)

I'm currently working as the Outreach Specialist for the IRIS Consortium, a non-profit seismology consortium located in Washington, D.C. I get to write and produce outreach materials and run a variety of outreach programs. It's a good job, but I've been here for two years and am starting to look for other opportunities. I go to many conferences each year and occasionally get to meet up with other UGA alumni, which is always fun.

Kristy (Kemph) Litts (B.S., 1997)

I have been working in the environmental field as a consulting geologist since my graduation after field camp in August 1997. In 2000, a friend from Geology classes, Heather Reed, introduced me to my husband, Thomas Litts. He was busy in the CRMS Lab (on the other side of the GGS building) my entire stay at UGA, but I never bumped into him. We were married in October 2002. Tommy Jordan from the CRMS played a lovely tune at our wedding! I hear that Tommy now attends field camp every year and teaches GIS mapping to the geology students....wow, that would have been nice to have during our field camp season-computers and GIS technology! I still have my rapidograph pens that have never been used since. I am currently a Project Manager at Tetra Tech NUS, Inc. in Stone Mountain, Georgia. Thom and I have a beautiful baby girl, Lillian Amelia (Lillie), who is almost a year old. We look forward to

camping and fishing with her, and maybe even looking at a few rocks along the way.

Vince Matthews (B.S., 1965; M.S., 1967)

Vince has presented a talk entitled, "China and India's ravenous appetite for natural resources and its potential impact on Colorado" to more than 2,000 people during the past six months.

Vince was recently elected to the Executive Board of the Western States Seismic Policy Council whose membership includes 13 western states, three territories, and two Canadian Provinces. Governor Bill Owens also appointed him to represent the State of Colorado in reviewing the proposed projects submitted to the Bureau of Land Management for Research, Demonstration, and Development Projects for commercialization of oil shale.

Mackie (McGriff) McIntosh (B.S., 2000) and William McIntosh (B.S., 1999)

William and I both went on to pursue master's degrees at the University of Utah in Salt Lake City. I studied various remediation formulations, including surfactants and humic substances, at a site on Hill Air Force Base in Logan, Utah that was contaminated with chlorinated solvents. William studied bacterial transport and attachment and detachment characteristics as related to a uranium-contaminated site in Oyster, Virginia. William finished up in December 2001, and I followed behind in August of 2002. We hot-tailed it back east (exactly two days after my defense) to be closer to our families and settled in Savannah. William began working for the Corps of Engineers in fall of 2002 as a hydrologic technician in the Hydrology and Hydraulics Section. He designed, installed, and monitored satellite-linked stream gauges up and down the Savannah River Basin. He also conducted the water-quality monitoring program for active dredging and dredging disposal areas along Savannah Harbor. He transferred over to the geology section in 2004 and now works on environmental soil and ground-water investigations, primarily at Fort Benning, Georgia. As part of his work, he has performed a number of Membrane Interface Probe (MIP) investigations (see photo) at various sites including Marine Corps Air Station Beaufort. Nothing like the bone-jarring rumble of F-18s and the overwhelming smell of jet fuel in the morning! He is currently overseeing a Hydrogen Releasing Compound (HRC) DNAPL remediation injection as we speak.

As for myself, after a short but traumatic consulting gig, I joined the Corps of Engineers geology section in 2003. I work primarily on Savannah Harbor issues, particularly the salt-water intrusion study. From 2003-2005, I conducted pore-water chloride analyses on Miocene confining-layer sediments overlying the Upper Floridan aquifer. The field work involved taking numerous core samples at varying depths up and down the entire length of the navigation channel, squeezing the pore-water out, and analyzing them on the IC for chloride concentration. The work

is part of a comprehensive effort to determine the extent to which deepening the navigation channel would affect the rate of downward salt-water intrusion in the Savannah area. I have also worked on a number of environmental sites and performed several EPA brownfields investigations, including the new sea turtle hospital at Jekyll Island. My most recent investigation was located in Tennessee, and I drove right by the Monteagle road-cut (see photo in Geology Field Trips). I almost shed a tear when I started recalling the lateral accretion surfaces, bimodal fossil distributions, paleosols, and that phosphatic fossil bed. I almost roasted to death helping Jennifer Smith dig those slabs out! That shale is hot in the summer sun and sharp as a razor!

William and I are doing great outside of work as well. We've been married for a little over four years now, and yes, I go by Mackie McIntosh. It's a mouthful and always gets a funny reaction, but at least I don't introduce myself as Mackie McGriff McIntosh! It's hard to believe it's been almost eight years since William and I met in Dr. Walker's and Dr. Holland's sed strat/paleo class!! We still enjoy backpacking whenever we can get to a destination with a little topography. We love living down here in the low country and spend a lot of time out on the water sailing and swimming in the Wilmington River and surrounding tidal creeks. We frequently race the sailboat, but these days we have been enjoying lackadaisical booze-cruising more and more. We are in the throes (week 13 of construction) of remodeling a condominium in the historic district, but I don't want to talk about that. I just want it to be finished! We also frequently drive up to Athens for the weekend to visit my mother and stepfather (just down the street from Dr. Holland) or to see one of our favorite bands. As always, we are looking forward to football season.

Allan Nix (B.S., 1991)

Dr. Roden traveled from Athens last fall to give a lecture for the Atlanta Geological Society. Before his talk, I jokingly asked him not to call on me to answer any questions like he used to do in undergrad Petrology. Sure enough, he called on me, singling me out of the crowd in the Fernbank Museum auditorium. Thanks Mike. On another subject, I am still doing environmental work, but I hear the oil companies are hiring. Oh to be 30 again. Where were the oil jobs in 1991?

Dennis O'Connell (Ph.D., 1995)

Allison and I live here in Athens, Georgia with our two sons (Daniel, age 10, and Robert, age 9). We are busy keeping up with our boy's school and other activities. Both boys are active in Cub Scouts, and I have served as a Cub Scout leader for the past 3 years. Robert is quite a piano player, and Daniel is working through his belts in taekwondo (so, if you need to hire a ninja or someone to play at your wedding, let us know).

In 2005, I became a partner in Nutter & Associates, Inc. (Formerly Earth Systems Associates, Inc.), the environmental consulting firm where I have worked since 1991. Our company has

continued to grow, and we now have ten full-time employees. Last year, we moved from our former location on South Milledge to a larger temporary office on North Milledge - we are in the process of remodeling an even larger office space that will accommodate 15 to 20 employees. Most of our work continues to focus on wastewater and biosolids land treatment, wetland investigations (including delineation, permitting, and mitigation banking), water quality studies, and watershed investigations. Give us a call when you are in Athens!

Bob O'Kelley (B.S., 1964, M.S., 1976)

(Sent by Mackie McIntosh) Bob is the branch chief of the Geotechnical and HTRW Branch (that's Hazardous, Toxic, and Radioactive Waste) for the Corps of Engineers in Savannah. He oversees about 40 assorted geologists, engineers, and geochemists in three separate sections. He still tries to get to Athens for at least one football game a year.

Seth Ramaley (M.S., 2001)

News from the Ramaley camp is that I have been promoted to senior scientist and work in the ARCADIS, Atlanta, Georgia office. Through a series of promotions over the past 6 years, I have transferred from the ARCADIS Maryland office to the Greenville, South Carolina office and now to the Atlanta, Georgia office.

Andy Rindsberg (M.S., 1983)

I've been with the Geological Survey of Alabama in Tuscaloosa for seventeen years, and sometimes it's been good and sometimes bad. Weekends, however, have been wonderful. I usually spend them with my partner L. A. Herr in the Grant Park neighborhood of Atlanta. My hobbies include gardening and nature photography, particularly of butterflies (actually the butterflies came first as something to look at while walking for our health, then the gardening to grow plants to attract them). The long-distance relationship leaves a few evenings in Tuscaloosa free for ichnology. For seven years, I co-edited the Ichnology Newsletter with Alfred Uchman of the Jagiellonian University. I've also been working with Georgia alumnus Tony Martin, who teaches at Emory University. A good deal of our research time was spent on trace fossils of the Union Chapel Mine, an extraordinary Pennsylvanian fossil find northwest of Birmingham that the State bought in 2004 and renamed the Steven C. Minkin Paleozoic Footprint Site. If you're curious about the book that came out last year, see the Alabama Paleontological Society's website at <http://www.alabamapaleo.org/> and click on "Pennsylvanian Footprints in the Black Warrior Basin of Alabama". It was a massive effort by many people over a period of five years, and I was glad to be part of it. But now it's time for the next project.

Marty Robinson (M.S., 1975)

Greetings from Saudi Arabia. Not much to add to last year's update. A year wiser and a little poorer with two sons in college. Kai has enjoyed his first year at Brown University. Peter graduates from Vassar in May and will start a Ph.D. program in astrophysics this fall at the University of Colorado in Boulder. Before he starts grad school, Peter and his Mom will be spending the summer hiking the Appalachian Trail from the Hudson River to Mount Katahdin in Maine. I get to spend the summer in Saudi!!

Karen Romine (B.S., 1975)

I received the UGA Geology newsletter for the first time recently and really enjoyed it. I was pleased to see that Gilles Allard is still in the news – as an undergraduate science major intending to be a biologist, I took his Economic Geology course as an elective (it fit the time slot!), got hooked and changed majors. He is on my very short list of great and influential teachers & mentors. I doubt he will remember me now, I was a very shy student in those days, and didn't have any other courses with him during the remaining years I spent in the geology department. Norm Herz was the department head for most of my time, and Dave Wenner was there, too, teaching petrology to us undergraduates. Please pass on my greetings to these guys if you don't mind. If they want to share news, I would be pleased to hear from them.

What have I been doing for all these intervening years? Well, after graduating from UGA I took a bit of time off school – I spent some of it in the Geochronology Lab working for John Noakes and Dave Wenner. I then moved north, and received my Ph.D. in Geological Oceanography at the University of Rhode Island. I met my husband Tom Loutit there, and we married in 1979. After graduating, we worked in Houston for Exxon Production Research for 11 years, had 2 kids, Jenny (17) and Alastair (15). Oceanography fell by the wayside somehow, and I became a seismic and sequence stratigrapher during my years at Exxon. Tom is an Australian who grew up in New Zealand, so in 1992 when a job opportunity down under presented itself, we left Exxon and Houston, and moved to Oz, where we have been ever since, living in Canberra. Initially we worked at the federal government survey (then Australian Geological Survey Org, now Geoscience Australia) – Tom was Chief of Division and I worked on contract which suited me well as the kids were 2 and 5 then. For the last 8 years we have been involved in the consulting business (we are part owners), and have worked basins all over the globe. Our company specializes in basin analysis using geopotential field data integrated with conventional geological and geophysical datasets. It has been a lot of fun, perhaps the most fun I have had doing geology in my career. Lots of travel involved too, and over the last several years I have spent quite a bit of time working overseas in the Middle East (Egypt, Libya and Oman) for various petroleum companies. I will be working in Oman for much of the remain-

ing half of this year, in fact, a place I can highly recommend for tourists with a geological bent!

In the last newsletter I read Ann Meierkord (Gillon)'s and Marty Robinson's updates and it brought back memories of structural geology classes and field trips with R.D. Dallmeyer – Marty was the TA for our undergraduate class. I will be reading future issues of the UGA Geology newsletter with interest, hoping to see more news of fellow students and teachers that I knew back then. My email contact is kromine@frogtech.com.au if anyone wants to chat.

Kathy (Fitzpatrick) Sanford (B.S., 1981; M.S., 1982)

Hurricane Katrina hit New Orleans three weeks before Jim and I planned to visit, and Rita was approaching while we would have been there. My thoughts and prayers are with anyone reading this who was affected more seriously than by just having a vacation canceled. As convention business returns to New Orleans, I am currently involved in an effort to raise donations for Charity Hospital's rebuilding fund from potential conventioners. Charity Hospital, which was started in the 1700's, was destroyed by Katrina. Prior to then, it was renowned for its health care services, especially for the poor. After the storms, the hospital provided bare bones services at a temporary station in the Convention Center. For many who have returned to New Orleans, this temporary station has been their only place to go for health care as most other public hospitals were also severely damaged and forced to significantly curtail their services as a result. Right after Mardi Gras, Charity Hospital moved out of the Convention Center to another temporary location so that convention business could resume. One of the first scheduled conventions is planned by the Society for Exploration Geophysicists (SEG) in early October 2006. Other geological organizations may follow. I am in the process of contacting SEG and other organizations to inform them of the link between their use of the Convention Center and its recent use by Charity Hospital, and to ask them to consider raising funds through their registration processes for Charity Hospital's rebuilding effort. This effort has been endorsed by Charity Hospital. If you are planning to attend a convention in New Orleans or belong to a group that is planning one and would like to contact the organizers, please contact me for more information via my email address listed at <http://www.gly.uga.edu/alums.php>.

I still work for the state of New York in the Bureau of Oil and Gas Regulation, Division of Mineral Resources, Department of Environmental Conservation (DEC). I spend infinitely more time with bureaucrats (like me) and lawyers than with rocks! Throughout 2005, I was involved in negotiations among DEC, the state legislature and industry regarding major changes made to the state's oil and gas law. This year my job is to implement new permitting and hearing procedures related to the new law. Meanwhile, oil and gas drilling activity in New York continues to increase in response to recent significant discov-

eries and high prices, so my co-workers and I in DEC's smallest Division stay very busy.

Kim Deal Seelos (B.S., 1999)

(Sent by Mackie McIntosh) Kim got married! William and I went to her wedding (a year ago this May?) deep in the Blue Ridge outside her parents' home in Franklin, North Carolina. It was an absolutely beautiful setting. She and her husband Frank Seelos met in St. Louis while they were both pursuing their doctorates at Washington University in planetary geology working on the Mars Rover project. They have since moved to Columbia, Maryland where Frank is working as a post-doc for JPL and Kim is finishing up her dissertation.

Jason Shiflet (M.S., 1999)

By the time this newsletter is published, I'll have finished my first year in a doctoral program at UNC at Charlotte (Infrastructure and Environmental Systems). I haven't selected a dissertation topic yet but, I have two alternatives I'm considering; a geomorphologic investigation in northern New Mexico or chlorinated solvent modeling using various isotopes. Class is going well, although difficult at times when homework assignments coincide with deliverables at my full-time job.

At home, Becca, Will, Evan and I welcomed our newest family member into this world on September 11, 2005. Sarah-Layton is wonderful, happy, and looks just like Will. Life with three kids is more amazing than we dreamed it would be. Will starts school in the fall and we're very nervous and excited for him. Please call me anytime if you're near Charlotte, North Carolina. My personal email address is shiflet.jason@gmail.com.

Edgar Smith (B.S., 1998)

I have been working in the environmental consulting industry since 2000 and currently I am a project manager for SECOR International, Inc., in Roswell, Georgia. My wife Donna, another UGA graduate, and I have been living in Woodstock for the last four years. Last August our daughter, Virginia Rose, was born and then in December I earned my professional registration in Georgia.

Jennifer Smith-Engle (Ph.D., 1983)

I am Associate Dean of the College of Science and Technology and Professor of Environmental Science and Geology at Texas A&M University-Corpus Christi. I'm mostly doing university administration now, but teach several geology courses (usually upper-level or graduate) each year. Most of my research has focused on the geology of the Texas Coastal Bend including barrier island geology, coastal erosion, and Pleistocene/Holocene geological change. We have one of the last largely undeveloped barriers in the US (Padre/Mustang Islands) but that is rapidly changing. On the positive side, this presents opportunities to monitor impacts and recommend sounder ap-

proaches to development. As in most communities, there is a notable lack of geological understanding among the public and need for better teacher preparation. So, we are offering summer teacher workshops and incorporating information relevant to K-12 in some of our regular geology offerings. We don't have a Geology Department per se, but rather a very large Department of Physical and Life Sciences (which might be a college at another institution) offering multiple degree programs (including the B.S. in Geology, the B.S. and M.S. in Environmental Science, a Ph.D. in Coastal and Marine System Science, and many others). This fosters interdisciplinary work and can be highly stimulating. UGA Geology graduates, if you are considering advanced education, please investigate our M.S. Environmental Science program (<http://www.sci.tamucc.edu/pals/esci/ms.html>). I know UGA provided you sound undergraduate preparation and we'd love to have you come down here! I've got 2-year old twins (send condolence cards, please) but hear they eventually grow out of it and have kept in contact with a few of my classmates from UGA; hello to all the rest! Email me at jsengle@falcon.tamucc.edu.

Don Thieme (Ph.D., 2003)

I completed my dissertation and was awarded my Ph.D in the spring of 2003, nearly ten years after I began the program in the fall of 1994. The fact that it took me that long to finish my Ph.D was due to my being quite active as a consultant to archaeologists throughout my years as a graduate student. Since being awarded my Ph.D, I have continued to consult for archaeologists part-time but have also been teaching college classes in geology and environmental science. I currently live in Athens and teach at Georgia Perimeter College (GPC) in Lawrenceville. I actually began teaching at GPC in the fall of 2002 while I was still at student in the department. Prior to moving back to Athens I lived in Statesboro, where I taught an upper level Stratigraphy course and Environmental Geology during the spring of 2005. I lived in Atlanta for nearly all of 2004 while teaching at both GPC and at Georgia State University as a visiting lecturer in Physical Geography.

I now have considerable teaching experience despite the fact that I have not yet found a university home here in Georgia. I enjoy the environmental science material because the students immediately connect with it. At both Georgia Southern and at GPC, I have developed laboratory exercises where the students make field measurements of water chemistry, describe soil profiles, and use a groundwater simulator and stream table. The students learn a great deal from these exercises but they also enjoy them so that I tend to get more favorable student evaluations than I do from the more traditional Physical and Historical Geology courses. Ideally, I would like to teach Geomorphology to upper level college and graduate students and possibly Stratigraphy again or even Archaeological Geology.

On the research front, I have completed a paper about Governors Island in New York Harbor based upon field observations

that I made back in the late 1990's as well as grain size analyses, soil chemistry, and radiocarbon dating. Depending upon development plans for the island, I expect to be following that initial research up with additional fieldwork using remote sensing, more radiocarbon dating, and probably luminescence dating. There are glacial deposits on the island as well as a Holocene paleoshoreline and some significant early historic as well as prehistoric archaeological contexts.

I did similar initial fieldwork for the LAMAR Institute at Ossabaw Island here in Georgia. In my report on that research, I summarized much of what is currently known about the late Quaternary period along the Georgia coast. This and several other reports are posted on my webpage at:

http://www.gpc.edu/~dthieme/Geoarch_Thieme.html

I am also writing entries on the Georgia coast and coastal plain for the "Roadside Geology" of Georgia that Pamela Gore of GPC is writing. In particular, I am writing a log for I-16 where I will identify and discuss the Quaternary marine terraces.



Dan Weinand (M.S., 1997)

Much has changed since leaving Athens in 1998 to come to Knoxville in pursuit of my Ph.D. in Anthropology. I've been to Java, Indonesia, twice, as a member of a joint American-Indonesian paleoanthropological research team. This research led to my interest in paleoenvironmental reconstructions and the Quaternary vertebrate faunal record of Southeast Asia that, in turn, led to additional museum-based research in the States and in the Netherlands.

My graduate studies also included extensive work with geochronological methods. I have been working closely with the Oak Ridge National Laboratory and the Illinois State Geological Survey. These collaborations, along with the guidance of the late Dr. Mike Elam, helped to create the University of Tennessee Center for Archaeometry and Geochronology (<http://web.utk.edu/~anthrop/utcag/>). I am currently serving as a post-doc researcher in charge of the radiocarbon dating laboratory associated with the Center, but I hope to soon expand our services to include TL and OSL dating.

Somewhere in all of this I also managed to marry and have a son. My wife, Laura, is a first grade teacher. Patrick is six months old and the center of our universe. Most of our free time is spent working around our house, changing diapers, getting outdoors, changing diapers and doing volunteer work for a local nature center. Did I mention changing diapers??

**Visit us on the web at
www.gly.uga.edu**

**Want to see a color version of
this newsletter?**

Go to www.gly.uga.edu to download a color pdf of this newsletter. The photos look much better in color!

Have news or photos?

Send any contributions for the next newsletter to Steve Holland at stratum@gly.uga.edu.

Have suggestions?

Please contact Susan Goldstein at sgoldst@gly.uga.edu or Steve Holland at stratum@gly.uga.edu.

Would you like to donate?

For donations to the Geology General Fund, checks should be made out to the ARCH Foundation, and please include the code AFASGEL06 and Geology General Fund on the designation line on the check. For donations to other funds, please call Pat Hancock at the Department of Geology at (706) 542-2652. Please direct checks to: c/o Pat Hancock, Dept. of Geology, University of Georgia, Athens, GA 30602-2501 If you would like to donate online, please click 'Give to UGA' on Geology's home page (www.gly.uga.edu), and select the Geology Department in the Franklin College of Arts and Sciences. We appreciate your generous support of the Geology Department!

University of Georgia
Department of Geology
Alumni Newsletter
Spring 2006



Department of Geology
University of Georgia
210 Field Street
Athens, GA 30602-2501

