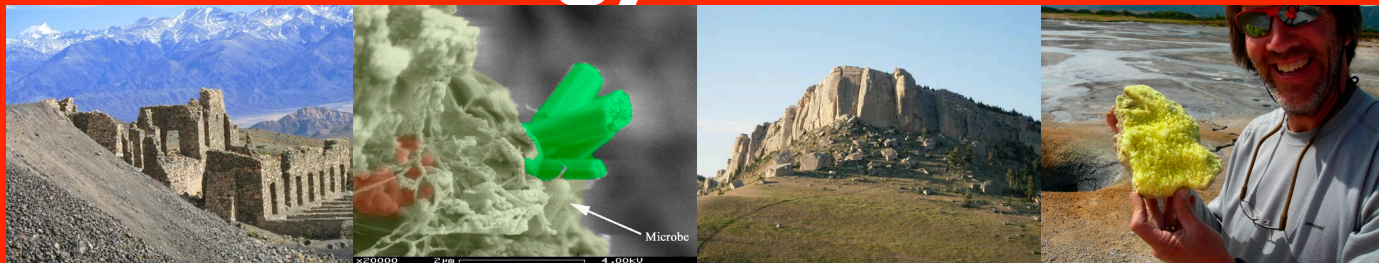


UGA Geology News



Spring 2007

Letter from the Department Head



Greetings from Athens! This has been a busy year with a completely new room 200A, a transition in the department head from Sue Goldstein to Mike Roden, rapid growth of our undergraduate program, revision of our website, and an increasingly international flavor to our program. However, the most important event was the very sad passing of Vernon Hurst this past summer. Vernon was active until the day he died and continued to work on a geochemical text based on his life's work. As most of you know, Vernon was a native of Georgia and a veteran of World War II. In 1965, he founded the Department of Geology and for the next 46 years he was a daily presence in our operations. He supervised numerous graduate students, was a University Research Professor for many years, and published numerous papers. He was truly a giant in southeastern geology. One of his students, Bill Barker, has written a more complete obituary published in the December 2006 issue of *Elements* (reprinted here on page 10).

For the last few years our undergraduate enrollment has increased and I'm pleased to note that our latest tally shows 37 undergraduate majors. These students are the lifeblood of the department, and so we are very pleased with the increased enrollment. Now we are faced with a new experience: wondering how we can set up all the core course labs. Our graduate student population remains stable at about 35 students. This is well down from the 70 students we had during the late 1980's but given the current national and state funding situation, 35 students is our limit. Our departmental budget (as well as all departments in Franklin College) suffered cuts again this year although the bulk of the cut has been restored recently.

A second growing aspect of our department is our increased connections with international students and



I 7 8 5

Contents

Letter from the Department Head
Pages 1-2

Faculty News
Pages 2-9

Emeritus News
Page 9-10

**Graduate Student Achievements,
Theses & Dissertations, Awards**
Pages 11-13

In The Field
Page 14-15

Alumni Reception
Pages 16

Alumni / Alumnae News
Pages 17-21

post-docs. When I first started teaching in 1984, we had a strong Brazilian connection orchestrated by Norm Herz and Jim Whitney. But over time, that connection waned to the detriment of the department. Over the last few years we have developed some new international collaborations. Our faculty and students currently have collaborations with colleagues in Turkey, Russia, Tunisia, Tanzania, Venezuela, Egypt, England, and Argentina. This year, we have had post-doctoral research associates from Egypt, Turkey and Venezuela. These international programs create visibility for the department, and in some cases funding is more accessible than in the extremely competitive U.S.

environment.

Given the difficulty of obtaining research grants from national and state sources, we are extremely grateful to our alumni who continue to support our students through donations to the Al-lard Fund, the Berg Scholarship, the Watts-Wheeler scholarship, the Levy award, as well as the general fund for Geology. The primary use of all these funds is to support graduate and undergraduate research as well as student travel to scientific meetings. We are thankful for your past donations and hope that you will continue to support the department in the future.

So when you are in the Athens area, stop by. We'll give you a tour of the newly refurbished 200A. For 50 years, this classroom with its bad ventilation, hard wooden seats and green chalkboards stood as an example of state-of-the-art teaching technology, circa 1960. This past year, the classroom has been completely refurbished with new seats, a carpet (instead of that old cement floor), and up-to-date audio-visual equipment. Faculty and students seem to be quite happy with the revolution. In the meantime, visit our newly revised website at <http://www.gly.uga.edu/>. In the future, we plan to post job opportunities on the website so that it will be a useful reference for those of you seeking employment.

- Mike Roden

Faculty News



Doug Crowe

This past year has been devoted to continuing our work in Kamchatka on microbial/mineral interactions and further characterizing the Uzon caldera hydrothermal system. We have completed four field seasons in Uzon and are now synthesizing a lot of data. We hope to have opportunity in the future to continue our fieldwork in this wonderful area.

I have been awarded a University Study in a Second Discipline Fellowship for the 2007-2008 academic year. I will be able to take time off from teaching to take some classes myself in microbial genomics and bioinformatics, with the goal of developing a knowledge base in the microbiological aspects of mineralization and the use of various molecular genetic tools for identifying microorganisms. It's a big challenge for me and I hope to come out of this better prepared to study biomineralization processes (and to get some external research dollars too!).

Matt (16) and Kira (12) have been joined by Corinne (1 month), so my life at home is somewhat noisier, but no less rewarding and interesting all of sudden. Julie and I took a belated honeymoon to Santorini and Istanbul last summer, had a great time, and got Corinne to boot!



Here, I'm holding large sulfur crystals that I collected during the 2006 field season in the Uzon Caldera on the Kamchatka Peninsula of Russia. Photo by Paul Schroeder.



David Dallmeyer

My instructional responsibilities this year once again included organizing and executing several extra-credit field excursions for the introductory geology course each semester. These included two one-day trips in the Elberton area of the Piedmont and a three-day trip to the Georgia Coast. The coastal trips were focused on Jekyll and St. Simons Islands with overnight accommodations at the 4-H club hotel complex. There was great participation, with more than 30 students on each of the coastal trips.

Extramural activities included two months work in the Arctic during the summer. Field areas included Greenland, Baffin Island, Labrador, Jan Mayen, Svalbard and Iceland. Dorinda and I also had the opportunity of a three-week assignment in Antarctica during the Christmas holidays.



John Dowd

After several years of drought, South West England had a very wet winter. This is good when you are researching rainfall-runoff relations! Despite the usual equipment failures, we collected a large data set of flows, soil water tensions, gutter flow, rainfall, and chemical concentrations. My colleagues Dr.

Andrew Williams (University of Plymouth) and Dr. Kate Heppell (Queen Mary College) and I are busily trying to make sense out of it. I am also continuing my research relationship with the Agricultural Research Service in Watkinsville. Joey McKinnon finished his research at the site and graduated in December. Several students are exploring new research opportunities at the

site, including monitoring flow and transport in the deep saprolite, and modeling groundwater flow to a spring and wetland.

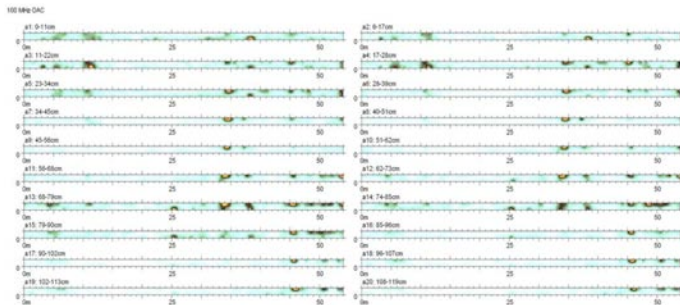


Erv Garrison

This past summer, UGA Geology's Field Course in Shallow Geophysics was conducted on campus at the Old Athens Cemetery for the first time since its inception in 1993. This course is one-of-a-kind among earth science academic programs and was created by Dr. Ervan Garrison of

our UGA faculty. Students are given basic instruction in the first principles, as well as hands-on application of the more common shallow geophysical methods that include ground penetrating radar, magnetics, electrical resistivity and ground EM/ conductivity. The course lasts less than one month and requires at least 4 hours from the students per day, five days a week.

The course builds on regular lecture classes given by Dr. Garrison and Dr. Rob Hawman in exploration geophysics. UGA Geology students are fortunate to have access to this growing area in geoprospection. It has great value in environmental geology, geotechnical studies as well as hydrogeology and geoarchaeology.



The figure above shows 100 MHz radar depth profiles of a 2 m by 100 m survey line across the lower portion of the Old Athens Cemetery. Anomalies at the 30 and 40 m locations on the survey line indicate subsurface features which could be of a geological or cultural origin.



Sue Goldstein

I stepped down as department head last summer and have enjoyed my return to research and teaching full time. I am continuing my work on the biodiversity of modern allogromiid foraminiferans, collaborating with Sam Bowser and Andrea Habura (Wadsworth Center, New York). Over the

past year, we worked at all three of our sampling sites: Cape Cod, Sapelo, and the Florida Keys. As it turns out, the allogromiids have an enormous diversity that previously has gone largely unreported, and the representatives are quite different at all three of our sites. Deniz Altin returned to grad school last fall

and is participating in this project for her Ph.D. research. She'll focus primarily on one interesting clade that is well-represented around Sapelo. I attended several conferences this past year, the most interesting was the International Symposium on Foraminifera held in Natal, Brazil last September. It is a wonderful conference held every four years in some spectacular setting. In addition to the great discussions with foraminiferologists from all over the world, we got to spend a day snorkeling on the reef just north of Natal, experience the local cuisine, and take in some traditional Brazilian music and dance performances. There wasn't much time for vacation last summer, but Beth and I went to the Bahamas for a few days around the New Year to do some scuba diving. I took over 500 underwater photos with a little digital camera. Only a few actually turned out well, but I intend to continue practicing!



Rob Hawman

It was a busy year in front of the old marker board - I taught Honors Science, Plate Tectonics, Geology 1250, and Exploration Geophysics. Right now I'm finishing up the analysis of some wide-angle seismic reflection data recorded in the Blue Ridge Mountains of North Carolina and north Georgia.

Our travel times show some interesting trends in V_p/V_s ratios and our migrated sections show variations in crustal thickness that correlate with topography and dense bodies in the crust. Last April, Scott Baker (Ph.D. candidate, University of Miami) defended his master's thesis on receiver function analysis of broadband earthquake data recorded at permanent seismic stations in the same region. We hope to go back and do follow-up work with portable arrays.

Right now I'm hosting Fulbright Fellow Dr. Mohamed Khalifa (Ph.D., UGA, 2002). Mohamed teaches geophysics at South Valley University in Qena, Egypt (about 300 miles south of Cairo). He'll be spending several months here working with our shallow seismic system. He just purchased a system of his own and will be doing investigations of groundwater and archaeological targets back in Egypt.

It was fun seeing many of you at the recent meeting of Southeast GSA in Savannah. Sam Peavey (Georgia Southwestern) and I organized a geophysics session and came away with some exciting ideas for cooperative experiments in the south-east.

Things are happening way too fast at home. Our daughter Elizabeth got married last May (yikes!) and is finishing up her master's degree in social work here at UGA. She plays cello in the Athens Symphony. Our son Peter is busy with a major in landscape architecture at UGA, but still finds time for photography. He won first place in a university competition last year. Barbara works with a kindergarten class at Barnett Shoals Elementary and teaches numerous French horn students at home.

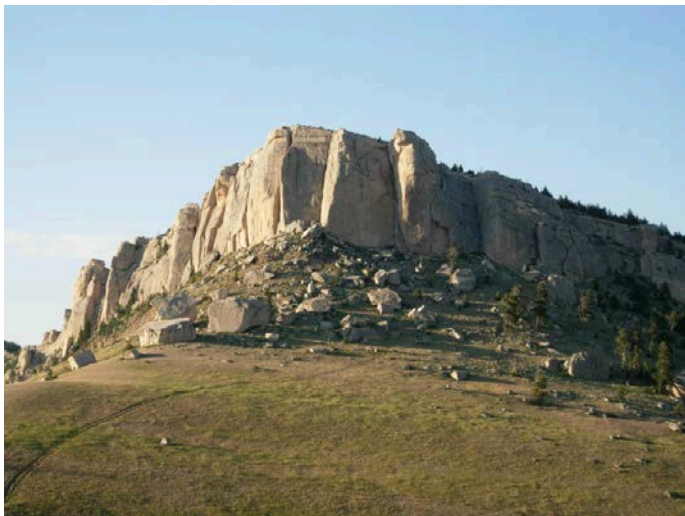
She's principal horn in the Athens Symphony. I'm still playing horn in the symphony, too, and occasionally I hit the right note.



Steve Holland

Over the past year, I've wrapped up my work on the paleoecology of the biotic invasion in Upper Ordovician strata of the Cincinnati Arch. This work will appear as a pair of papers in *Paleobiology* and *Palaios* this summer, coauthored with my long-time collaborator Mark Patzkowsky (Penn State).

Now, we're moving west and have begun work on the response of sedimentation and biotas to climate change in the Late Ordovician of Wyoming. The Bighorn Dolomite of Wyoming has long held a reputation for being a thick pile of unfossiliferous and uninteresting dolomite, but our reconnaissance work last summer showed it to be anything but. We've found many localities with fossils as numerous and well-preserved as any we've seen in the eastern U.S., and the dolomitization has not destroyed primary depositional fabrics. For us, the project is exciting not only because of the underlying scientific question, but also because these strata are essentially virgin territory for sequence stratigraphic and paleoecological work, and also because it is simply a beautiful area to work in. Our days of fast food, cheap hotels, and traffic jams in the eastern U.S. are now replaced with good meals, camping, and solitude in Wyoming.



This is one of our sections at Steamboat Point in the northern Bighorn Mountains. That fallen block below the cliff is larger than our house!

Mark and I have also started work on our forthcoming University of Chicago Press book, "Stratigraphic Paleobiology". In it, we 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. We are scheduled to submit our first draft by the end of summer, 2008.

My students continue to amaze me with their productivity and scientific creativity. Karen Layou defended her Ph.D. dissertation this past December, gave birth to twin boys shortly thereafter, and will be starting a teaching position at the College of William and Mary in Williamsburg, Virginia this fall. Noel Heim is heading into his final year of his Ph.D. and is continuing his work on the ecology and diversity dynamics of faunal interchange. Look for their papers in *Palaios* and *Paleobiology* in the coming year.

My family is doing well. Tish is continuing her work on the carbon chemistry off the Amazon and may be starting back into polar research with a possible cruise off Antarctica next year. Zack will be six in June and Alex just turned three. We've enjoyed many hikes in the past year and the boys love to go exploring. You can see what they've been up to lately at homepage.mac.com/stevenholland.



Alberto Patiño Douce

This has been a year of planting seeds and trying to get them to grow. It began during the Southern Hemisphere winter (I'll let you figure out when that is) with Marta's study abroad program. I was in charge of the last week of our activities in Argentina, when we traveled to the Puna, the high Andean plateau in the northwest of the country. The countryside around Antofagasta de la Sierra is a volcanic wonderland, and although

I had been to the area many times before, it was not until we used it as our volcanology classroom that I fully realized that there probably is no better place in the entire world to teach about volcanoes.



This is the leading edge of the Cerro Galán ash flow in the Antofagasta de la Sierra, Argentina.

An outgrowth of this realization is a project that we are getting going with Mike Roden to mount a serious research effort in the area, coupled to an outreach initiative focused on helping the local inhabitants develop an adventure-tourism industry. We plan to spend quite a bit of time there this winter. Thanks to a grant from the President's Venture Fund, we have most of the

funding needed and expect to get the remainder soon, so stay tuned to the next newsletter! Also, my collaborative work with Mike on halogens in the Solar System continues: we are using our microprobe to collect data on chondrites and we hope to start working on samples of the terrestrial oceanic mantle soon. Another of the seeds that I mention above is a thermodynamic model for equilibrium between halogen-bearing mineral phases (apatite and biotite) and fluids. In a nutshell, the model calculates the apatite (or biotite) composition in equilibrium with fluid, given bulk rock halogen and water contents, fluid/rock ratio, temperature, pressure and an additional parameter that constrains the chemical potential of the limiting incompatible element (either phosphorus or potassium). Version 1.0 of the model is working, but it does not include any non-ideal solution effects. I am looking into what would be needed to include such effects (this will be version 2.0). Two additional seeds that I planted this year are a proposal to Cambridge University Press for a textbook with the title, “An Introduction to the Energetics and Thermodynamics of Planetary Processes”, and a poster for a meeting on teaching about the early Earth with the title, “A conceptual framework for understanding the early post-nebular terrestrial atmosphere”. Check again next year to see whether any of these seeds germinated!



Marta Patiño Douce

It has been yet another busy year!

I taught six introductory courses during the regular academic year, the Maymester gems class and three distance education courses, plus I was the director of our Geology in Argentina Program.

Very rarely I get to teach our undergraduates beyond Introductory Geology. This was not the case with Danielle Haskett. Besides GEOL 1121 and GEOL 1122, she also took my GEOL 3090 Gems and Gem Materials class. This summer, Danielle (who graduated recently) got her dream job at the Gemological Institute of America's Gem Trade laboratory in New York. This is the most prestigious gem identification lab in the country!

Our study abroad program was launched with a small but spirited group of students. It is amazing to think that we covered about four thousand miles, and visited thirteen different locations in five weeks. The students learned geology while surrounded by spectacular mountains and pristine outcrops. They also got a taste of the wide spectrum of Argentinean culture.

Eddie Lavandaio, from the geological survey of Mendoza, Argentina, joined our group for the last leg of the trip. Led by him, we went into the heart of the Andes: the Cordillera Frontal and Cordillera Principal. Snow storms are common at this altitude in winter, but we had perfect weather that opened glorious views of Mount Aconcagua, rising 22,834 ft above sea level. There was a lot that Eddie could show us about the local geology and because he does not speak English, Alberto and myself served as translators. Our group became quite conspicuous to the

local population of Uspallata, the little foothill village where we stayed. One day, Eddie was explaining a fault outcrop and Alberto was delivering the English version for the students. A man who had bicycled by our group several times before, finally stopped in front of us. Addressing Eddie in the most respectful manner, he conveyed: “I want to ask the group leader if you still need some extras for the movie”. We exploded in laughter. It turns out that “Seven Years in Tibet” (with Brad Pitt) was filmed in this area a few years ago. The Tibetan crowds are pure breed Mendocinos and the Andes at this latitude have nothing to envy the mighty Himalayas.

This may have also been my year in the entertainment set. In November, the host of “Enfoque Latino con la Dra. Londoño”, a local TV program designed for the Spanish speaking population, interviewed me for her show. We talked about the broad span of geology careers and how geology relates to the common person. Almost at the same time, I completed four hours of video segments for a series of gem documentaries to be aired in QVC this coming May. Who knows, next time, I will be signing autographs!



Bruce Railsback

Research published this year has included Bethany Purdin's (now Bethany Theiling's) M.S. work in the Journal of Sedimentary Research, Lisa Miller Baldini's M.S. work in Palaios, Jim Webster's Ph.D. work in Palaeogeography, Palaeoclimatology, Palaeoecology, and another of LBR's befuddling

papers in American Mineralogist. I also have put together a new website called “Fundamentals of Mineralogy and Geochemistry” with numerous one-page illustrations, some of which will bring back frightening memories for former graduate students who suffered through my 8000-level classes.

Meanwhile, I continue to annoy undergraduates, most notably the GEOL 1122 students whom I rudely inform that they do not live on a planet designed to satisfy infinite desires of infinite numbers of humans. I've also been preparing to annoy students beyond the walls of UGA by working on a small textbook that I'll use in an Alpine and Glacial Geology class in the University of New Orleans' summer program in Innsbruck (a program affiliated with UGA too). I don't know much about either mountain ranges or glaciers, but it's been fun to learn about such things in preparation for the class, and it will be great to be back in the Tirolean Alps.



Mike Roden

In July, I started as department head and the learning curve has been quite steep. Contrary to some perceptions, this is not a particularly powerful position, and much time is absorbed by dealing with very small issues, such as letter writing and that sort of

thing. I'm not sure that I enjoy the job, but I know that I will be glad when the summer arrives. I've managed to get some research done in collaboration with Alberto. We've published two papers, including one on garnets that contain exsolved diopside and rutile. Exsolution in garnets is not a common phenomenon, but some very high pressure garnets will exsolve Si-bearing minerals when the garnets are brought to the surface. This exsolution reflects the presence of a majorite component in the garnet and that component becomes important at great depths in the earth (> 400 km). The garnets we studied are from pyroxenite xenoliths found in a Siberian kimberlite. The second paper involves the use of apatite and its extraterrestrial companion, merrillite (effectively volatile-free apatite), to infer the abundances of halogens and water in fluids and melts. Ever since we started teaching a planetary geology course, we have become more and more interested in planetary petrology, and last March we published a paper in *Geochimica* on the abundances of the halogens and water on the Moon, Mars and some meteorite parent bodies. This stuff is great fun to think about and we're continuing to study apatite both in terrestrial magmatic rocks and meteorites.

I've also vicariously enjoyed the research of two graduate students, Jeff Chaumba and Steve Clark. Jeff is testing the hypothesis of Gilles Allard and Jim Whitney that many of the small ultramafic bodies in the Piedmont are fragments of a thin thrust sheet emplaced during the Alleghanian orogeny. Jeff is sampling in detail many of the same bodies studied by Tracy McFarland a few years ago. Tracy did quite an excellent job and Jeff is building on her work in an attempt to understand the petrogenesis of these bodies. The second project is a study of diabase dikes in the Elberton area by Steve Clark. Through serendipity, we discovered a petrologically unusual dike with a beautifully exposed chill zone, although the dike is highly olivine-normative, and olivine-rich in the center, the chill zone contains only plagioclase phenocrysts. Steve and a number of other students who collaborated on the project think that the dike fractionated olivine and spinel in the deep crust before rising rapidly to the surface. Both Jeff and Steve gave papers at the recent Southeastern section GSA meeting in Savannah.

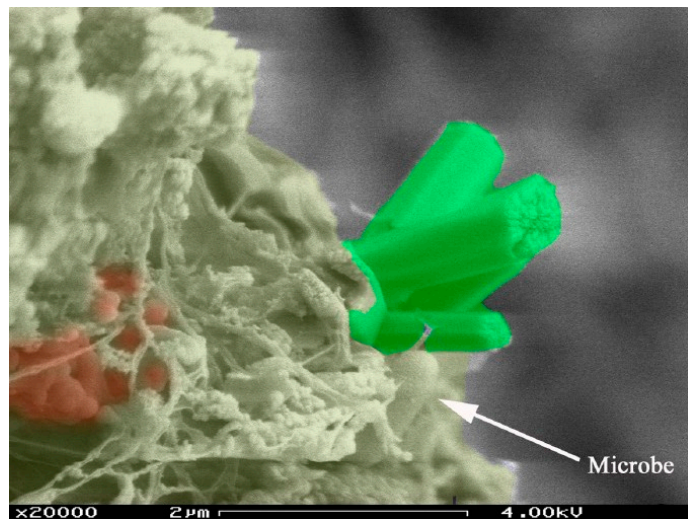


Paul Schroeder

This past year was marked by my return to the Uzon Caldera and Geyser Valley in Kamchatka, Russia. Accompanied by undergrad Maggie Hodges and Drs. Crowe and Romanek, we gathered more geochemical data this summer than in the previous three years combined. Jennifer Kyle

and I just had our Yellowstone sinter paper published in *Clays and Clay Minerals*. Jenn is doing well at University of Toronto, where she just received an additional two years of NSERC funding for her work on viruses in extreme geologic environments. Jay Austin has settled into his work on Ordovician paleosols and as of the printing of this newsletter we should be

able to tell if there is live carbon in the paleosol goethite or not. The two of us will be heading to Santa Fe, New Mexico to attend the Clay Minerals Society Annual Meeting, where Jay will be presenting and I will be receiving the Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Award. Serving as Associate Head has had its rewarding moments, like organizing the alumni party at the Moon River Brewery during this year's Southeastern section of GSA meeting. This year, I begin my service as an Associate Editor for *American Mineralogist*, while I continue my collaborations with Glenn Stracher on coal fire minerals and İşik Ece on halloysite and alunite genesis in Turkey.



Microbe-mineral relations continue to appear everywhere we look. This false-color SEM image of hot spring sinter shows barite laths (green) and opal spheres (red), all coated with extracellular polymeric substances coming from a rod-shaped bacterium living in 80° C water! Photo by Jennifer Kyle.



Sam Swanson

During the year, I taught Earth Materials (the new version of Mineralogy) to a recent record (15 students) enrollment. Our field trip was to western North Carolina in early November after all those pesky leaves were gone. Rain threatened all day, but did not start until we were on the way back to Athens. Everyone in the class found rubies on Corundum Knob!

Chris Fleisher and I are teaching the microprobe class this spring. The students (all from geology this time) are well into their individual projects and such a diverse array of subjects we seldom see; from clay to glauconite to turquoise to Roman mortar! In the class on the Petrology of Stony Archaeological Materials, we are studying obsidian artifacts (arrowheads and flakes) from a Pomo site on my old homestead. I always thought the obsidian came from the area around the Clear Lake/Geysers volcanic area, but petrography and microprobe work done during the class suggested a source at Napa Glass

Mountain. A visit to Napa Glass Mountain during spring break produced samples of obsidian that are a dead ringer for the artifacts! A little data are a wonderful thing!

Southeastern GSA was in Savannah and produced record numbers for the section meeting (over 800 folks). UGA had a booth at the meeting and Mike Roden hosted a alumni reception. I saw people in Savannah I have never seen at SE GSA meeting (it was a very nice venue). All of the hard rock petrology papers fit into one half-day session, showing how things have changed in geology.

Cynthia Hotujec started her studies with me this fall. Cynthia is working on source determination for turquoise from a archaeological site in New Mexico. Jennifer Wehby, a UGA undergraduate alum in anthropology, started her graduate studies on mortar from Roman Pompeii with me this spring. An undergraduate student in Earth Materials, Katherine Needer, started work with me on a senior thesis involving REE pegmatite minerals from central Texas. The samples are so radioactive that we keep them away from the office!

Have a good summer. Come visit Athens and the department when you get the chance. Travel safe and keep those hot samples to yourself!



Sally Walker

One of the highlights of the 2006 summer was attending the "PearseFest" in honor of my undergraduate professor, Dr. John S.

Pearse (University of California, Santa Cruz). I was overjoyed seeing John and Vicki Pearse, who, along with Todd Newberry and their wonderful graduate stu-

dents, Karen Davis, Bill Kennedy, and David Lindberg, inspired me to study marine invertebrate biology and ecology. After the Pearsefest, all of John's former students headed into the field to do his annual intertidal survey, which was my favorite very early morning event to do as an undergraduate; Todd Newberry always said, "...no matter what, the water will always be one inch over the hip boots..." and sure enough, as you can tell from the photo to the above right, Soquel Point's water was at least 2 ft above my UGA Red & Black rubber boots.



The Pearsefest

After returning from Santa Cruz, I flew to Germany to meet Fausto, as he was attending the world-cup soccer matches. While Fausto was cheering England, I was cheering for all the great fossils, including the Solnhofen, Holzmaden, and the Grube Messel, which I visited by conning Fausto into believing that he could indeed watch the soccer matches at those localities (and it turned out to be true, thanks to Big Screen Satellite TV: Goal!!!!!!). In September, I went on a three-week submersible research trip into the Gulf of Mexico with the SSETI group, where we worked at 2000 ft near salt-brine lakes, erupting methane vents, and chemosynthetic communities. The sad part was that we boarded our ship in Gulfport, Mississippi, which was still devastated from Hurricane Katrina the year before.

Lately, I've had a great time with my Paleocology class studying oyster reefs at Sapelo Island, as Matt Jarrett and my new Master's student, Justin Miller, can attest (see photo on page 13). They now know that once you've seen one oyster shell, you'll have a whole pile more to measure for as far as the eye can see. At Sapelo, Justin, Matt and I had the honor of working with three great former UGA alumni, Steve and Kitty Henderson and Mackie MacIntosh (formerly, McGriff). Steve was the first to introduce me to Sapelo Island (and these Sapelo photos are his and Kitty's). Mackie was my first undergraduate research assistant (along with Kim [Deal] Seelos, now a researcher in exobiology at Johns Hopkins University) back in the late 1990's. It was wonderful working with Mackie again, and she told me great news: with her hubbie, Will (a UGA alumnus!), they are expecting a wee MacIntosh in August! Lastly, we just had a wonderful Pizza & Paleo celebration with Tony Martin (another former alumnus!) and Karen Chin, celebrating discoveries of digging and dunging dinosaurs! I look forward to working with all these great alumni in the future!



Steve (Ph.D., 1984), Kitty (M.S., 1984) and Sarah Henderson at Nannygoat Beach, Sapelo Island



Mackie (McGriff) MacIntosh (B.S., 2000) checking salinity measurements, Sapelo Island



Dave Wenner

Much of my attention is now focused on the Honors Interdisciplinary Summer Field Program (IFP; <http://www.gly.uga.edu/ifp/>). I have been serving as director of this program for the past five or so years. The challenge recently has been to build our enrollment back up to 24 students, the number

we had prior to two years ago. This means more advertising and promotion, which I'm not comfortable doing, but realize is important. It seems our recent decline in enrollment is linked to a proliferation of new, seemingly more attractive study-abroad programs at UGA. I can't for the life of me understand why someone would want to take classes on the beach in Fiji or Tahiti rather than hear a lecture in Death Valley in July (see photo at top right). I guess there is no accounting for the taste of some students these days. However, I'm convinced we can rebuild the program because of the continued loyalty of Jim

and Sandy Whitney, now both retired, alumni Joe and Nikki Elkins at Bowling Green State University in Ohio, and Julie Cox, all of whom are planning to participate in the program this upcoming summer.



Students in the Honors Interdisciplinary Summer Field Program at Dante's View, overlooking Death Valley, California



Jim Wright

During 2006, I greatly expanded my interest in the use of detrital zircon geochronology as a tool to determine provenance of sedimentary strata. Along with Sandra Wyld, we published a radical new model for the Paleozoic tectonic evolution of the North American Cordillera, and have a paper in

press on an alternative tectonic interpretation of the Great Valley Group of California. Both papers rely heavily on the interpretation of detrital zircon ages. Along these same lines, I just returned from George Gehrels lab at the University of Arizona where we were able to acquire about 2800 U-Pb analyses of individual detrital zircons using a laser ablation multi-collector ICPMS. Two students, Gabby Izsak and Mark Warren, helped with the analyses. Gabby is using part of the data set for his Masters thesis and Mark is using a part for his undergraduate thesis. In addition, we also collected data that will be a critical part of Meg Kinsella's Masters thesis.

Sandra and I continue our work in the Caribbean, and we had our existing NSF grant renewed with additional funding for two more years. I hope to spend June mapping the island of La Orchila with graduate student Mariela Noguera who just joined our tectonics program. Mariela is a recent graduate of Universidad Central, Caracas. La Orchila is the "Camp David" of Venezuelan president Hugo Chávez and we are still trying to obtain permission from the Venezuelan military to visit the island. Patxi Viscarret has joined the tectonics group as a post doctoral scholar for this current semester. Patxi is from Universidad de Los Andes, Mérida, Venezuela. He and I will travel to Stanford

shortly to acquire U-Pb zircon ages on some igneous rocks from Venezuela using the SHRIMP-RG (sensitive high-resolution ion micro probe - reverse geometry).

Finally, I am editing a GSA special volume in honor of my Ph.D. advisor Cliff Hopson (University of California Santa Barbara), and continue to teach structural geology (with Sandra Wyld), honors physical geology, and graduate courses in tectonics and radiogenic isotopes.



Sandra Wyld

Last year was a busy year of traveling for meetings, field work, field conferences, and University talks - Anchorage and New York in the spring, Nevada twice and then Idaho in the summer, Colorado and then Oregon twice in the fall. I'm still working, along with Jim Wright and students, on the Early Cre-

taceous strike-slip fault system we discovered a few years ago in northwest Nevada and southeast Oregon that records about 400 km of right-lateral strike-slip offset. Chad Wolak (M.S. 2000) was instrumental in the early work on this fault, up in Oregon. Now, we have Meg Kinsella (M.S. in progress) and Mark Warren (senior Honors thesis in progress) working in the Fox Range, north of Pyramid Lake in remote western Nevada, where they have found some truly stunning and amazing geologic relations that have never before been described (see photograph on last page of newsletter). We'll all be presenting results of that work at the Bellingham, Washington, Cordilleran Section GSA meeting in May, if any of you are up there.

I also continue to work with Jim Wright and students on the southern Caribbean tectonics project, and on the recently launched Great Valley project, which involves discovering yet another major Cretaceous strike-slip system, this one in California. By the time we are done, the whole western U.S. is going to turn out to be sliced and diced and shuffled a lot more than anyone ever realized.

Back at school, I continue in my third year as one of the undergraduate advisors for Geology majors, a job I thoroughly enjoy because our majors are such a great group, year after year. I continue teaching the course in Structural Geology which is now expanded to include Tectonics and Field Methods and which is co-taught with Jim Wright.

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. He recently gave lectures and field trips on north campus to a group of school teachers in Athens for the convention of Georgia Science Teachers Association. He gives lectures to retirement homes, social clubs like Kiwanis, etc. At the present, he is preparing a course titled Geology for Tourists for members of a group called L.I.R (Learning in Retirement). In his spare time, Gilles continues to be the Secretary-Treasurer of the Athens Torch Club, which he has led since 1992, taking it from a medium-size club to the largest club in the U.S. out of 70 clubs.

Gilles regrets that he cannot announce that the Lac Dore vanadium deposit in Chibougamau has been sold, since no buyer has yet to put down the hard cash needed.

Gilles and Bern went to Vietnam in January, as tourists and not as a lecturer. It is fun to travel in a great country without having to work.

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, eight students have received around \$1000. each. It is amazing to see all the areas studied by those students (in chronological order): Nevada, Bahamas, Peru, Nevada, Georgia-North Carolina, Nevada-Utah and New Mexico-Arizona, Georgia, and Texas. Please join Gilles in your contribution to that good cause. Their address is UGA Foundation, 394 South Milledge Avenue, Athens, GA 30602; please indicate the Allard Fund. Thanks for your help.

Norm Herz

There have been more pleasant repercussions from my book on the secret World War II mission to the Azores, "Operation Alacrity" published two years ago by the Naval Institute Press. First, Congressman Nunes from California, a leading member of the Portuguese Caucus (bet you never knew that one even existed), invited me for lunch last spring in D.C., where we talked about the Azores, its strategic position and importance for NATO. Then in December the Portuguese translation of the book was published as "Operação Alacrity". I'll also be speaking at an international symposium to be held on the island of Santa Maria in the Azores this spring, where the book and translation will be featured and discussed by invited authorities.

But I haven't given up yet on geoarchaeology. In June, I attended a meeting of ASMOSIA, the Association for the Study of Marble and other Stones used in Antiquity, held in Aix-en-Provence in southern France. Scott Pike, a UGA alumnus now teaching at Willamette University in Oregon, and I gave a paper on stable isotopic signatures of classical Greek and Roman marbles.

In Remembrance of Vernon Hurst (1923-2007)

Vernon Hurst, 83, Research Professor Emeritus in the Department of Geology at the University of Georgia at Athens (UGA), died on July 28, 2006.

Dr. Hurst was born on July 18, 1923, in Glenmore, Georgia. A member of the 97th U.S. Infantry, Hurst served in both the combat European theatre and during the occupation of Japan. Following World War II, Hurst received his B.Sc. degree from the University of Georgia and M.S. from Emory University. Hurst worked with Ernst Cloos, as well as with Hatton Yoder at the Geophysical Laboratory of the Carnegie Institution to earn his Ph.D. in geology from the Johns Hopkins University in high P-T hydrothermal mineralogy. He founded the Geology Department at UGA in 1965 and served as department head for eight years and chairman of the Physical Sciences Division for four years. Hurst held a University Research Professorship for 22 years, trained 9 Ph.D. and 26 M.S. students, and published over 150 scientific papers.

An early proponent of transmission electron microscopy, Hurst studied mineral weathering and crystal growth, incorporating fundamental research findings into such economic applications as improved clay mineral beneficiation via selective flocculation and magnetic separation. In addition to basic and applied mineralogical research, Hurst performed extensive fieldwork and helped pioneer geologic mapping of highly saprolitized terrains. During this long career, he published many details on the stratigraphy and mineralogy of Georgia's Cretaceous and Tertiary sediments and contributed significantly to our understanding of the role of microbial processes and the origin of Georgia's world-famous soft and hard kaolins. Hurst was first to recognize classic Barrovian metamorphism in Georgia and published geologic maps of twelve counties. He also published on the gold districts and talc deposits in Georgia. He was a 50-year fellow of the Geological Society of America and the Mineralogical Society of America. He was also a member of Sigma Xi and Phi Kappa Phi. The Clays Minerals Society, in recognition of a lifetime of scientific achievements, selected him as a Pioneer in Clay Science Lecturer in 2003.

- W.W. Barker

reprinted from Elements, December 2006, published by The Clay Minerals Society (www.clays.org)

Student Accomplishments

Jay Austin

Austin, J.C., P.A. Schroeder, and J. Cox, 2007. Radiogenic Carbon In Goethite From The Upper Ordovician Neda Formation: Implications For Re-Crystallization. The Clay Minerals Society Annual meeting, Sante Fe, New Mexico. Abstract with programs.

Austin, J.C., P.A. Schroeder, and J.F. Dowd, 2006. Aluminum substitution in goethite from the late Ordovician Neda Formation: Implications for environment of formation and post-burial weathering. GSA Abstracts with Programs, Paper No. 221-12, Philadelphia, Pennsylvania.

Schroeder, P.A., J.C. Austin, and J.F. Dowd, 2006. Estimating long-term soil respiration rates from carbon isotopes occluded in gibbsite: *Geochimica et Cosmochimica Acta*, 70: 5692-5697.

Advisor: Paul Schroeder

Liz Purvis Cary

Received Outstanding Teaching Assistant award from the University of Georgia

Advisor: Valentine Nzengung

Kimberly Coke

American Petroleum Institute Award

Advisor: Valentine Nzengung

Noel Heim

Heim, N.A., 2006. Hierarchical sampling and additive diversity partitioning across multiple spatial and temporal scales: an example with upper Mississippian (Chesterian) brachiopods from the southern Ozark Uplift, North America. *GSA Abstracts with Programs*, 38(7): 86.

Advisor: Steven Holland

Karen Layou

Layou, K.M., 2007. A quantitative null model of additive diversity partitioning: examining the response of beta diversity to extinction. *Paleobiology* 33:116-124.

Layou, K.M., 2006. Community-level paleoecological change associated with regional extinction in the Late Ordovician (Mohawkian) Appalachian Basin of the eastern United States. *GSA Abstracts with Programs* 38(7): 170.

Layou, K.M., S.M. Holland, and M.E. Patzkowsky, 2006. Lasting effects of extinction and invasion on community structure: A deep-time perspective. *ESA Abstracts with Programs* 91: 224.

Accepted a sabbatical replacement teaching position at College of William and Mary

Advisor: Steven Holland



Karen and Dann Layou's twins, David (left) and Noah (right), born 17 February, 2007

Joey McKinnon

McKinnon, R.J., J.F. Dowd, and D.M. Endale, 2007. A mechanism for storm runoff generation during large rainfall events. *Proceedings of the 2007 Georgia Water Resources Conference*. Athens, Georgia.

Now a hydrologist with Geosyntec Consultants in Jacksonville, Florida and working on contaminant remediation projects

Advisor: John Dowd

Jason Nail

Summer internship with GeoSyntec Consultants, Knoxville, Tennessee. Planned and carried out sampling and drilling events for hazardous waste sites, and assisted in the analysis and reporting

Advisor: Valentine Nzengung

Kathy Schroer

Schroer, K.L., D.M. Endale, C.L. Tebes-Stevens, J.W. Washington, and V. Nzengung, 2007. Concentrations and estimated loads of nitrogen contributed by two adjacent wetland streams with different flow-source terms in Watkinsville, Georgia. *Proceedings of the 2007 Georgia Water Resources Conference*, March 27-29, 2007, at the University of Georgia. 4 p.

Washington, J.W., R.C. Thomas, D.M. Endale, K.L. Schroer, and L.P. Samarkina, 2006. Groundwater N speciation and redox control of organic N mineralization by O₂ reduction to H₂O₂. *Geochimica et Cosmochimica Acta* 70: 3533-3548.

Advisor: Valentine Nzengung

Sheldon Skaggs

Presented lecture entitled "The Methodological and Theoretical Interface Between Archeology and the Earth Sciences" at SUNY Potsdam, as part of their Campus Festival

Advisor: Ervan Garrison

Kenton Trubee

Trubee, K.J., and S.T. Goldstein, 2007. Development of a Foraminiferal-based transfer function for coastal Georgia. Geological Society of America Abstracts with Program 39(2): 14.

Student grant, Southeastern Section, GSA: Development of a foraminiferal-based transfer function for coastal Georgia

Advisor: Susan Goldstein

Eric Wysong

Wysong, E.J., and S.E. Walker, 2006. Hurricane effects on molluscan death assemblages and their facies: San Salvador, Bahamas. Geological Society of America Abstracts with Programs, 38(7): 534.

Advisor: Sally Walker

Graduate Theses & Dissertations: 2005-2007

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 (Warnell 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

Michael S. Baker, M.S., Investigation of the Crust and Uppermost Mantle in the Carolina Terrane and Blue Ridge, Southern Appalachians, Using Receiver Function Analysis of Broadband Earthquake Data, Advisor: Robert Hawman

Monica Carroll, Ph.D., Memoirs of River Life: A Clam Shells View, Advisor: Chris Romanek

Robert J. McKinnon, M.S., A Mechanism for Storm Runoff Generation During large Rainfall Events, Advisor: John Dowd

2007

Karen J. Layou, Ph.D., Paleocommunity Response to Extinction: An Example from the Late Ordovician (Mohawkian) of the Appalachian Basin of the Eastern United States, Advisor: Steven Holland

Departmental Awards to Graduate Students

Allard Fund

Margaret Kinsella: The Fox Range, Northwest Nevada: Displaced Fragment Along an Early Cretaceous Dextral Strike-Slip Fault

Watts-Wheeler Fund: Research

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

Gabriel Izsak: A Translational Model for the Great Valley Group, California: A Detrital Zircon Analysis

Matt Jarrett: Late Eocene Temperatures: New Insights from Giant Oysters

Jim Muckler: Nitrogen Transformations in the Vadose Zone

Brian Price: Modeling Water Flow in the Saturated Zone

Liz 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, Texas

Sheldon Skaggs: A Lead Isotope Database: The Atlas Mountains and Northern Tunisia

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

Watts-Wheeler Fund: Travel

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

Matt Jarrett: Matt (First International Sclerochronology Conference, St. Petersburg, Florida)

Karen Layou: Lasting Effects of Extinction and Invasion on Community Structure A Deep-Time Perspective (Ecological Society of America, Memphis, Tennessee)

Christian Schrader: Fluorine and Chlorine Behavior in Alkaline Rocks of the Big Bend Region, Texas (South Central GSA Annual Conference, Norman, Oklahoma)

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, San Antonio, Texas)

Sheldon Skaggs: Initial Results from an Isotopic Study of De-fixiones from Carthage (36th International Symposium for Archaeometry, Quebec City, Canada)



Graduate students Matt Jarrett and Justin Miller counting organisms a quadrat in an oyster bank on Sapelo Island, Georgia

In The Field

David Dallmeyer on Jekyll Island

For the past few years, the Department of Geology has sponsored one-day and two-day extra-credit field trips for introductory geology students to foster their interest in the subject and to attract new majors to our department. David Dallmeyer has enthusiastically led these trips, primarily to the Elberton area to study igneous and metamorphic rocks and to Jekyll and Saint Simons Island to study coastal processes. Here are a few photos from the most recent trip to the coast.



David (center, kneeling) lecturing on the consequences of shoreline retreat.



David lecturing from a bridge over a tidal creek.



Examining an erosional scarp that exposes dune stratification.



Trees stranded by shoreline retreat.



Taking notes on the boardwalk.

Marta and Alberto Patiño Douce in Argentina

Marta and Alberto Patiño Douce recently created the UGA Study Abroad program in Argentina, which gives undergraduates the unique opportunity to experience the culture and geology of Argentina. When Marta and Alberto first presented this to the department, many faculty and students said they wished they could take the course! Visit their website at <http://mapatino.myweb.uga.edu/arghome.html>



Marta and Alberto (and Erin) at Acay Pass. Salta, Argentina



Students Carrie Johnson, John Bates McCutcheon, Sarah Richards and Erin De Rosa. Talampaya National Park. La Rioja, Argentina



Test to qualify for the optional Puna extension in the Geology in Argentina program. Campo de Piedra Pómez close to Antofagasta de la Sierra. Catamarca, Argentina.



View of Uspallata Valley from Paramillos Mine. Mount Aconcagua on the far left background.



Lunch break facing Aconcagua. Alberto (left), students (center), Eddie Lavandaio (right). Mendoza, Argentina

Alumni Reception: Southeast GSA

The Department of Geology hosted an alumni reception at the Moon River Brewing Company during the recent meeting of the South-eastern Section of the Geological Society of America in Savannah, Georgia. A good time was had by all, and more by some!



From left to right, alumnus Scott Baker, alumnus Andrew Ivester, faculty member Ervan Garrison (front row), faculty chairman Mike Roden (back), alumnus Michael Bailey (back), graduate student Deniz Altin (front), friend of Ken Gillem (with hat), graduate student Steve Clark (far back), alumnus Mack Duncan, alumnus Ken Gillem, alumna Polly Bouker



From left to right, alumna Polly Bouker, faculty member Rob Hawman (in rear, facing left), alumnus Andrew Rindsberg, graduate student Gabby Izsak (back to camera), alumna Julie Duncan, and quizzical alumnus Tony Martin.

Alumni / Alumnae

Tom Algeo (M.S., 1985)

I'm still working on Devonian and Permian-Triassic boundary global events. The Devonian work is all close to home (Ohio and Kentucky), but there aren't many Upper Permian or Triassic strata in the Midwest, so the latter project keeps me traveling to China, New Zealand, Canada, and elsewhere. Folks interested in these topics can explore my website: <http://homepages.uc.edu/%7Ealgeo/>. Friends are encouraged to email me at: Thomas.Algeo@uc.edu.

Jessica Allen (M.S., 2003)

I am still working on my Ph.D. This year I have been participating in a science education outreach program and have been teaching science to 4th, 5th and 6th graders. It has been quite a learning experience. I plan to spend this summer doing field-work and working. If all goes well, I should graduate in 2009.

Polly Bouker (M.S., 1996)

I have started working at the Rockdale Campus of Georgia Perimeter College (GPC) where Geology has never been offered before. I will be moving again as this campus relocates to the new GPC Newton Campus in Covington, Georgia in June.

As my kids have grown, I have continued to be active in their school, where I speak to the 3rd graders about rocks and fossils each year.

This year I have been involved in a State of Georgia Math / Science Partnership Grant program between GPC and Rockdale County Public Schools. The goal of this program is to help Rockdale County teachers who are interested in teaching Earth Science to be prepared for the new science curriculum in Georgia.



Terri Maloof (squatting), Michelle Anderson, and Sam Swanson at Woodall Shoals on the Chattooga River.



From left to right, Zack Hall, Heather Dennis, Polly Bouker, Maggie Rafter (Millings now), and Lynn Andrews at Rabun Bald in Rabun County, Georgia, November, 1994

Bill Bradley (B.S., 1982)

I am presently employed by Lafarge North America Eastern Business Unit headquartered in Alpharetta, Georgia. Following graduation, after a brief stint as a soil and concrete technician, I joined the Georgia Marble Company in 1985. During this time I worked with still good friend NSSGA's John Hayden (B.S. 1985). When Georgia Marble's Aggregates group was sold, I was fortunate enough to endure numerous subsequent buy-outs. This included brief ownership under Kohlberg Kravis Roberts & Co., and later Blue Circle Industries, which bought the company in 1989. When Lafarge bought Blue Circle in 2001, the wheels of progress stopped while the massive transition took place, including more heads being lopped off. Luckily, being low enough on the totem pole, I was able to fly below the radar screen and survive this buyout as well. I have now enjoyed 22 years in the crushed stone industry. I am involved in coordinating and monitoring exploration, overburden stripping programs and reserve quantification for our existing quarries, greenfield sites and potential acquisitions. I also develop short, mid-range and long-term mine plans.

I still fondly recall watching Herschel "My God the Freshman!" run wild on Saturday afternoons and then R.E.M. entertaining the local faithful at hangouts like Tyrone's O.C., B&L Warehouse, and the original 40 Watt Club.

Bob Chernow (M.S., 1984)

I have been a high school earth science teacher in Randolph, New Jersey for 5 years. After graduating from UGA in 1984, I spent 10 years in the oil industry in Texas, Alaska and New Orleans, and then returned to New Jersey where I spent 15 years in environmental consulting and remediation. In my free time (what is that?), I taxi Robin (14), Melissa (12) and Jack (8) to their various sporting events. I am still active on the local planning board and open space committees. Sorry to hear that Ver-

non Hurst passed away. I remember his clay mineralogy class, and his idea that life may have originated when lightning hit certain clays to create proteins. It made us think, and that is what education is all about. Thanks for everything.

Robert B. Cook (M.S., 1968; Ph.D., 1971)

Robert B. Cook is retiring from Auburn University after 35 years of service there. He was Department Head for 22 of those years. He was this years recipient of the Salotti Award for teaching excellence in the earth sciences. Dr. Charles Salotti, for whom the award is named, taught at Georgia during the early years of its graduate program.

Mack Duncan (B.S., 1968)

I will be retiring in June after 10 years in the oil and gas business and 20 years in the kaolin business. Julie and I plan to do some traveling and then move to Athens this fall. We will be fixing up two houses: the one we are leaving in Thomson, Georgia and the one we are moving into in Athens. That should keep us busy for a while. After that I plan to seek my third career, unknown at this time. We would love to hear from you. My cell phone is 706-340-5474.

Mark Hall (M.S., 1991)

There have been a lot of changes for the Hall family in the last few months. Lynn is still teaching at Athens Montessori School. She is our daughter's Senior Girl Scout Troop leader (I am the co-leader). Last year, she became a Brownie Troop leader to keep the troop from disbanding. So now we have a whole new group of screaming, giggly girls in our lives. Just to make sure that she has enough to do, she is also the Girls Scout Service Unit Director for Athens-Clarke County.

Sherrie is now a senior in High School. She keeps Lynn and I very busy. So far, she has been accepted by four colleges, all with scholarship. Georgia Tech is the current front runner. She is still waiting to hear from a couple of schools up north. We are lucky to have such a prestigious engineering school so close to home, but the decision is hers to make. Her goal is to become an aerospace engineer.

As for myself, I have a new job. Last December, I was talking to a friend and co-author at the USGS about our poster for the up-coming Georgia Water Resources Conference. He asked if I had heard about the geologist position at the Natural Resource Conservation Service office in Athens. I looked it up. It was Friday morning and the announcement closed on Monday. I hustled and over-nighted my application to Washington, D.C. at noon the next day. I am now the NRCS Geologist for Georgia and Florida.

On a sad note: Our 18 year old cat, Nermal, died in March. For those of you who remember, Lynn and I got Nermal when we lived on Ashmore Court along with Bert Taylor, Dean Musfeld,

Raad Dalem, Wes Hardegree, the now Mrs. (Maureen) Hardegree, Sherri Havert (Clark), Dennis O'Connell, David Kirby, and sometimes Janet Albert. This has been especially hard on Sherrie, since Nermal allowed her to share her bed for most of their lives. Nermal is greatly missed and will be remembered for her witty quips such as, "Meow!", "Purr", and, of course "Hissss", which is quite familiar to those who knew her well.

Stephen Harper (Ph.D., 1996)

I am still doing about the same things at East Carolina University with lots of teaching intro-level physical and environmental geology classes as well as coordinating graduate TA's, who teach our intro physical geology labs. I also teach a senior-level course in geomorphology every other spring semester. In 2006, I became Director of the North Carolina Summer Geology Field Course, which is operated by the Department of Geological Sciences at ECU.

I received a grant from the Asian Studies Program for \$4000 to travel to southeast and east Asia this summer to gather information and photographs for Asia-based geo-hazard and geo-resource case studies that will be incorporated into my Environmental Geology course in the Fall Semester of 2007.

John Hayden (B.S., 1985)

John Hayden is shown (below) taking sediment samples near Kanab, Utah during field work with his wife Janice (B.S. 1980; M.S. 1981, from BYU) who works for the Utah Geologic Survey and conducts geologic mapping of the quadrangles in southern Utah. The sand samples are being analyzed by Utah State University's Geology Department, whose new lab features cutting-edge capabilities in optically stimulated luminescence or OSL geochronology that enable geologists, archaeologists and other scientists to accurately determine the age of sediment samples. John, who works for the National Stone, Sand and Gravel Association in Alexandria, Virginia, regularly helps Janice with her field work in Utah.



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

Deborah Keene and Fred Andrus are pleased to announce the birth of their son, Benjamin Keene Taylor Andrus, on July 29, 2006. We are still at the University of Alabama. Deborah will be excavating this summer at the Grove's Creek Site, and Fred will head back to Peru, after starting a new project in Cuba.



Benjamin Keene Taylor Andrus

Joshua Kennerly (B.S., 1998)

I'm currently employed as a geodetic earth scientist for the National Geospatial-Intelligence Agency in St. Louis, Missouri. I work primarily with GIS for modeling gravity and other geophysical data in support of mapping for the intelligence community and Department of Defense. I'm married and have two daughters, Annie, 3, and Amelia, 6 months. My wife recently completed her postdoctoral work and is climbing her way up the academic ladder as a research scientist at Washington University's School of Medicine.

Prior to relocating to St. Louis, we lived in Seattle for 3 years where I worked at an environmental and geotechnical lab, where I tested soil and sediment samples. I also completed a certificate program in GIS at a local community college. Prior to Seattle, we lived in Decatur, Georgia where I was a staff geologist at Seismic Imaging, Inc. in Lawrenceville.

Beth Kinstler (B.S., 1979)

I now work as an antique appraiser and estate liquidator...with a special affinity for estate and vintage jewelry. Believe it or not, my geology background has sometimes helped me in this area.

I was the recipient of a "Hell no, I won't go" award because of my fear of heights and outdoors.

Gayle Levy (M.S., 2003)

A lot has changed for me in the past year. I left IRIS and am now at a new company called Revolution Health. It's the newest venture of Steve Case (of AOL fame). He started Revolution about 1 1/2 years ago after his brother died of brain cancer. He wanted to do something to revolutionize the way people look at health and health care. I've been there since August of 2006. A friend works there and the opportunity came up so I decided to take it. I manage all of the content for the brain and nerve conditions on the site. I really like it. I'm learning so much about these conditions and feel great pride in finding the best content for people in need of information. I miss geology, but am so rewarded by my current position that it's a good trade-off for now!

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

Our office recently moved and in doing so, I came across some of my field camp pictures. I have attached a photo of our group at Rocky Mountain National Park and a copy of all the names in the photo, minus a few transfer students from Kansas. It was taken either July or August 1997. I am still a project manager at an environmental consulting firm in Stone Mountain, Georgia. My husband Thom and I are enjoying being parents to our daughter Lillie (almost 2 years old) and hope to expand our family soon. Hope all is well over in Athens



Standing (L to R): Julie Rosdeutscher, Chris Fleisher, Ed Smith, Corrie James, Amber Stuckey, David Goodman, Steve Smith, Byron Davis, Jeff Morrison, Paul Hitchcock, Evan, Kansas student, Colin Polk, Matt Livingston. Sitting (L to R): Chris Shepard, Chris Roden, Berkley Tracey, Hilary Goerig, Kristy Kemph, Margaret Fraiser, Kevin Kilby, Jon McKenna, Adam Bedell, Karen Kramer, Laura Marsh. Reclining: Dr. Michael Roden

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

Vince, who is State Geologist of Colorado, was appointed to the Steering Committee of the Advanced National Seismic System (ANSS). The ANSS Steering Committee provides advice to

the USGS Earthquake Hazards Program and to the ANSS Coordinator on priorities and strategies for ANSS development, implementation and promotion. He also serves on the Executive Committee of the Western States Seismic Policy Council.

During the past two years he has given a talk on “China and India’s Ravenous Appetite for Natural Resources and its Impact on Colorado” to more than 10,000 Coloradans. He will be the featured speaker at the AAPG EMD luncheon in April.

Vince remembers the best advice given from Vernon Hurst: “A little over 40 years ago, Vernon took us on a field trip. He stopped the van at our appointed roadcut. Our assignment was to figure out what was going on in the roadcut. We enthusiastically charged across the road with our rock picks in hand and lenses bouncing against our chests. Just about the time we got our noses on the outcrop, Vernon ordered us back across the road where he was still standing.”

“We were informed that we had just committed the mistake that 95% of all geologists commit. To wit, we had charged to the outcrop without first getting an overview and selecting those places to focus in on that would give us the most information. He instructed us to walk the full roadcut, before crossing the road for a close-up look. That lesson was one of the most useful of my career. I still think about him as I watch on field trips to see how many folks immediately rush to the outcrop before performing a reconnaissance. The 95% figure still holds today.”

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

William and I have one piece of news: we are expecting a baby boy in August! Other than that, things are the same. Both passed the Georgia professional licensing exam. Both working for USACE Savannah District. William is doing a lot of geotechnical work in New Orleans for levee design and in South Florida for the Everglades Restoration Project. I am working mainly on Savannah Harbor and the salt-water intrusion studies associated with the proposed expansion project.

Allan Nix (B.S., 1991)

I am still running an environmental-consulting business, Environmental Advantage, out of my home in Woodstock, Georgia. Currently, I am a licensed professional geologist in Georgia and Florida. It pained me to hear about the passing of Dr. Vernon Hurst this past year. I had Dr. Hurst for undergraduate Saprolite Mapping and found him to be a good teacher and a very interesting person. He was opinionated, but interesting.

Dennis O’Connell (Ph.D., 1995)

Allison and I and our sons Daniel & Robert continue to live, work and play in Athens, Georgia where we share our home with two attack dachshunds and a mutt of unknown (and questionable) provenance. Daniel has progressed to red belt in

taekwondo; Robert is now a green belt. Both of our boys have remained active in scouting over the past year, including some rock hounding at a quartz mine in Antreville, South Carolina.

The environmental consulting company that I have worked for since 1991, Nutter & Associates, recently moved into a larger, newly renovated office at 360 Hawthorne Lane in Athens. Our work continues to focus on wetland investigations, watershed assessments, water quality studies, and wastewater and bio-solids land treatment. Stop by and see us if you are in Athens!

It was great seeing Dr. Wenner and Dr. Dowd at the 2007 Georgia Water Resources Conference, and Tony Martin and Rhonda Quinn at the 2007 Southeast GSA in Savannah. I look forward to seeing more UGA faculty and alumni at upcoming events!

Julie Rosdeutscher Crowe (M.S., 1999)

For those of you who don’t know, I kind of did a 180 after working in exploration in Nevada after UGA and have since gone into nursing. I know, I still sort of feel like a traitor to geology but have been happy with my career choice and get to live somewhat vicariously as a geologist still through Doug. Most recently, I have been working at the Athens Nurses Clinic, which provides free health care to the growing uninsured and homeless populations of Athens. I also have been pursuing my Family Nurse Practitioner certification, which I should complete in August. My best news to report is the recent arrival of our baby girl, Corinne Diane Crowe, born on March 9. Corinne is doing well, and we all are adjusting to life with a newborn. It helps that at least one of us has some experience! Big siblings Matt and Kira love their baby sister, and Doug so far has managed to stay busy with work despite being a bit sleep-deprived (and constantly teased about it by his colleagues!). Doug’s current research has focused on the hot spring microbial communities in the Uzon Caldera in Kamchatka, Far East Russia, and he has been awarded the opportunity to study in a second discipline through the university next year. Part of this involves taking classes in biology and ecology in order to help further his understanding of those microbial communities. You can read more about it in his section, I’m sure. We are pretty settled in here in Watkinsville and would love to hear from other alums. Look us up if you’re back this way!



Corinne Diane Crowe

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

Hello! I'm still in the same position with the Bureau of Oil & Gas Regulation, NYS DEC Division of Mineral Resources in Albany, and still busy with issues related to natural gas drilling. A new additional subject area at work is the permitting of geoelectricity wells drilled 1500 feet deep for heating and cooling systems to support green building development in Manhattan and elsewhere - watch for an article on this in the Conservationist magazine published by DEC (see www.dec.ny.gov for information). This fall, Jim and I plan to visit Salzburg, Austria, where I will no doubt use one of the skills learned as a UGA Geology student, i.e., beer drinking! Cheers, everyone!

Chris Shepherd (B.S., 1998)

I am currently working and living in Phoenix, Arizona. I am working as an environmental geologist for ARCADIS a multidiscipline consulting firm. And last year I finally obtained my registration as a Professional Geologist in the State of Arizona. I hope this message finds you and everyone doing well.

Don Thieme (Ph.D., 2003)

I have had a difficult but productive year. I lived in Athens all year, commuting back and forth to teach at Georgia Perimeter College (GPC) in Lawrenceville. I have also been spending about half of my weekends in Nashville, Tennessee since my father injured his back up there in the fall of 2006. I expect to move out of Athens sometime this summer to take up new teaching responsibilities, since GPC is no longer going to be offering geology at the Lawrenceville campus. There will be geology taught at the new campus in Newton, primarily by Polly Bouker and Deniz Altin.

Some new field opportunities came my way this past year while other research and publication plans stalled. My big project at this point is working with Dennis Blanton of the Fernbank Museum of Natural History in his search for mission Santa Isabel de Utinahica at the Forks of the Ocmulgee in south Georgia. I have been part of a multidisciplinary team which is describing the stratigraphy and soils, and coring Holocene wetlands within the area investigated. The attached photograph shows me describing the section exposed at Coffee Bluff, which features an extremely well-preserved wetland deposit from the late Pleistocene. Dennis and I reported on our findings at Coffee Bluff at the recent Southeastern Section GSA meeting in Savannah.



Don Thieme at Coffee Bluff on the Ocmulgee River

I presented a paper based upon my dissertation in a session on alluvial geoarchaeology at the annual meeting of GSA in Philadelphia in November, 2006. I have been told that papers from that session are to be published as a GSA Special Paper. Also in the fall, I led a stop at the Talbot shoreline for the fall field trip of the Georgia Geological Society. This provided an opportunity to revive my long-term interest in the relationships between river deposition and shoreline deposition in Georgia during the Quaternary Period. Despite promises made in last year's newsletter, I am still revising my paper on Governors Island for a book on historical geoarchaeology to be published by the University of Florida Press and co-edited by a former employer, Joseph Schuldenrein.

In addition to the raw experience of teaching both in the classroom and the field, beginning when I was a teaching assistant at UGA, I have delved into the literature in education and consulted with textbook publishers and testing services during the past year. This will be my second summer grading the advanced placement examination in environmental science for the College Board. I also recently attended a workshop on "Learning through Visuals" run by Wiley at the National Geographic Society in Washington, D.C. Thinking about how to improve my own teaching methods and course materials has been helpful in writing a teaching philosophy for job applications, which will hopefully give me a great new opportunity to teach somewhere this coming fall.

Visit our new website at www.gly.uga.edu

In April, we launched our totally revamped website, giving it a much-needed facelift, improved navigation, and updated content. Take a look and let us know what you think.

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@uga.edu.

Have suggestions?

Please contact Mike Roden at mroden@gly.uga.edu or Steve Holland at stratum@uga.edu.

Would you like to donate?

The Geology Department appreciates your financial help. Your donations benefit the department and especially our students. Endowments directly aid the work of graduate students. For example, the Berg Fund for geophysics supported the work of Scott Baker in his geophysical investigation of the crust and uppermost mantle in the Carolina Terrane and Blue Ridge. The Watts-Wheeler Fund is instrumental in supporting many of our graduate students in their research and in presenting their work at professional meetings, such as the Geological Society of America. In the past year alone, the Watts-Wheeler Fund has supported the research of nine graduate students and the travel of six graduate students. The Allard Fund this year supports the work of Margaret Kinsella on the tectonic history of the Fox Range in Nevada, a location that may hold the keys to a significant reinterpretation of cordilleran tectonics. As always, our General Fund for support of both undergraduate and graduate programs has benefitted all by supporting invited speakers and our new open house program for prospective graduate students. Thank you for your donations.

For donations to the Geology General Fund, checks should be made out to the ARCH Foundation, and please include the code AFASGEOL207 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!



Graduate students Meg Kinsella (back), Gabby Izsak (center), and undergraduate Mark Warren (front), eating lunch on top of the Fox Range. The Black Rock Desert in the background is the site of the Burning Man Festival. These three students are studying a fault system found by Sandra Wyld and Jim Wright that records roughly 400 km of previously undetected right-lateral strike-slip offset in western Nevada.

University of Georgia
Department of Geology
Alumni Newsletter
Spring 2007



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

NON-PROFIT ORG.
U.S. POSTAGE
PAID
ATHENS, GA
PERMIT No. 165