Georgia’s Water Wars

In July 2009, a federal judge ruled that by 2012, the state of Georgia would have to drastically reduce withdrawals of water from Lake Lanier to supply Atlanta’s water needs. The ruling highlighted ongoing debates about how to allocate water to Georgia, Alabama, and Florida and the complexities of the physical and social geographies of water provision in the region. The Department of Geosciences hosted the Spring 2010 Speaker Series, which featured speakers from academia, the nonprofit sector, and governmental agencies to address legal, social, and physical aspects of Georgia’s ongoing water dispute.

Pictured left to right: Professor James Bross, Georgia State University College of Law; Neill Herring, Georgia chapter of the Sierra Club; Frank Stephens, Program Analyst, Department of Water Resources, Gwinnett County; Professor David Feldman, Department of Planning, Policy, and Design, University of California, Irvine
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Hassan A. Babaie — Associate Professor, Structural Geology, Geoinformatics
Jordan Clayton — Assistant Professor, Fluvial Geomorphology and Sediment Transport
Jeremy Crampton — Associate Professor, Digital Cartography, Online Mapping, GIS, Geographic Visualization, Theory in Geography
Dajun Dai — Assistant Professor, medical geography, GIS
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Visiting Lecturers & Instructors
William Bailey
Wayne Cook
Scott Harris

Staff
Basirat Lawal, Business Manager
Jack Reed, Intermediate Tech Specialist
Atieh Tajik, Laboratory Coordinator
Erica Walker, Administrative Coordinator

Adjunct Faculty
Andry Bekker — University of Manitoba
Pamela Burnley — University of Nevada, Las Vegas
John Costello — Georgia Geological Society
Jim Henry — Professor Emeritus (Georgia Southern)
Aditya Kar — Associate Professor, Fort Valley State University
Hermann Lebit — Assistant Professor, University of Louisiana
J. Marion Wampler — Associate Professor, Georgia Tech

Emeritus Faculty
Sanford Bederman — Professor Emeritus, Geography
Truman Hartshorn — Professor Emeritus, Geography
Richard Pillsbury — Professor Emeritus, Geography
Letter from the Chair

Dear Alumni, students, and friends,

Geosciences has continued to grow and develop in many arenas this year. First, we welcome several new faculty and staff members. In August, Dr. Risa Palm, an urban geographer with an appointment in Geosciences, assumed the role of GSU’s new Provost. The department also welcomed Dr. Dajun Dai, a geographer who specializes in GIS with particular expertise in mapping health disparities. Dr. Dai has a secondary appointment in the GSU Institute of Public Health. Computer technical specialist Jack Reed now holds the critical position of oversight for all of the computer-based technologies in GEOS. Dr. Dona Stewart was promoted to Professor and now has her full-time home in Geosciences.

The structure of the department is changing as well, with the goal of providing a top-rate education in geosciences. We are working on plans for a combined B.S. degree program in Geosciences with concentrations in geography, urban studies, geology and environmental geosciences. We look forward to developing a combined M.S. degree program as well. The department will continue to offer the Ph.D. degree in chemistry with a geology concentration. In addition, the department will be participating in an Academic Program Review starting fall 2010, which involves a comprehensive review of our academic programs.

Faculty members and students continue to engage in interesting and productive scholarship. As the faculty reports in the newsletter describe, faculty and students have published many papers this year, and participated in professional conferences in record numbers. Hassan Babaie continues as Editor in Chief of Earth Science Informatics (Springer) and is working on his NSF-funded study on the San Andreas Fault. Jeremy Crampton is Editor-in-Chief of Cartographica and has published a new book Mapping: A Critical Introduction to Cartography and GIS.

Productive inter- and intra- departmental research collaborations continue, as well, which we describe in this newsletter. They include the department’s first funded collaborative study employing geologic and geographic techniques in GEOS at GSU (Dan Deocampo and Dajun Dai); work on a NASA grant with Physics/Astronomy and Education (Jeremy Diem and Leslie Edwards); and work with Sociology on the relocation of public housing residents (Katherine Hankins). Additionally, I am working with Eirik Krogstad, Seth Rose and Marion Wampler (Georgia Tech) on a US Department of Energy-funded study of sorption of Cesium in Savannah River Site soils.

Community outreach activities reached new levels. As you will read, Katherine Hankins and Jordan Clayton organized the very successful Water Wars talks featured on the front page of this newsletter. Parama Roy’s qualitative methods class worked with the Atlanta Beltline Project, and Leslie Edwards’ environmental issues seminar students partnered with Sweetwater Creek. The field component of Geosciences, too, continues to be a notable feature of the department, as recognized in the “Rock of Ages” report on the front page of GSU news in the June. The report featured Jordan Clayton’s Field Methods class, Hassan Babaie’s Geology Field camp and the Sweetwater Creek project. Seth Rose has been named a member of the Georgia Environmental Protection Division (GA EPD) Scientific and Engineering Advisory Board and to the GA EPD’s Mapping Review Committee.

Finally, as will be seen throughout the newsletter, Geosciences students – both graduates and undergraduates - have worked hard, exhibiting impressive engagement and enthusiasm for the disciplines of geography and geology. They are the foundation of the Department’s success, and we are proud of their accomplishments.

Sincerely,

W. Crawford Elliott
Faculty News

Dan Deocampo (Assistant Professor), pictured above, has published a few papers over the past year or so, with his colleagues in the US, England, France, and Italy. This included a landmark study on Olduvai Gorge, Tanzania in *American Journal of Science*, and studies of how ancient Romans used volcanic ashes to make concrete, published in *Geoarchaeology* and *Journal of Archaeological Sciences*. The *Geoarchaeology* paper was recognized as among the 25 “most important and influential papers” published by the journal, in honor of its 25th anniversary. Dan also published a major review of the geochemistry of continental carbonate systems in *Developments in Sedimentology*, presented a paper at the national GSA meeting in Portland, Oregon, and submitted research grant proposals to the National Geographic Society, the LSB Leakey Foundation, the Petroleum Research Fund, and the National Science Foundation. In May, Dan’s students Jennifer Dickie successfully defended her M.S. thesis titled “Mineralogical and Geochemical Indicators of Subaerial Weathering in the Pozzolane Rosse Ignimbrite (Alban Hills Volcanic District, Italy).

Seth Rose (Associate Professor) published a paper in *Hydrological Processes* examining long-term rainfall and runoff trends in the southeast U.S.A. over the past 70 years. He also developed a new a statistical method to analyze the long-term effects of antecedent rainfall upon stream runoff, and tested it on the Piedmont Province, work that was also submitted to *Hydrological Process* where he was also recently appointed to the Editorial Board. Three of Seth’s students have completed their M.S. work recently and graduated: Usha Kharel, Oliver Costello, and Joseph Ivanowski. Seth’s expertise in water science was also recently recognized by the State of Georgia (Department of Natural Resources, Environmental Protection Division), who appointed him to the Scientific and Engineering Advisory Panel to advise the state on water issues.

Leslie Edwards (Lecturer) authored a chapter “The Land, Climate, and Vegetation of Georgia” in a recently published book titled *Georgia Breeding Bird Atlas* by the University of Georgia Press. Teaching the graduate seminar “Conservation Issues and Management Strategies for Southeastern Landscapes” was rewarding. Leslie and her students partnered with Sweetwater Creek State Park (see the article in this newsletter) and the students’ work exceeded everyone’s expectations for the project. The students worked extremely well with the park staff and produced high-quality work for the park.

Crawford Elliott (Associate Professor and Department Chair) has received the distinction of being elected Fellow of the Geological Society of America. This title is awarded “in recognition of distinguished contributions to the geosciences,” as Crawford has made numerous important contributions in the fields of clay mineralogy and sedimentary geochemistry. Crawford presented papers at the Goldschmidt (Geochemistry), Clay Minerals Society, and invited Department of Energy meetings. His research funding continues from the Department of Energy (cesium sorption in Savannah River Site soils) and Oklahoma University (clay mineralogy and geochemistry of shales). Crawford also taught a short course on clay mineralogy at Oklahoma University and served on the National Science Foundation
panel for the Graduate Research Fellowship Program. Crawford’s students Craig Van Trees and Tom Naumann defended their M.S. theses and graduated, and Tom was awarded a travel grant to attend the Clay Minerals Society meeting in Seville, Spain. Crawford’s former student Stephen Osborne (M.S. 2006) recently defended his Ph.D. at University of Arizona and will start a post-doc this fall at Duke’s Center on Global Change in the Nicholas School of the Environment and Earth Sciences – kudos to Stephen!

Jordan Clayton, pictured below right, (Assistant Professor) published a paper on meandering gravel-bed rivers in Water Resources Research, and a second paper on his work in the Whitewater River Basin in Kansas, in Water Resources Management. Jordan also collaborated with student lead author Barbara Smucyz and co-author Zoia Comarova in publishing an analysis of stream urbanization in various regions of the Chattahoochee River, published in Southeastern Geographer. Jordan keeps his students busy writing up the results of their research - Richard Cartwright recently submitted a paper to Icarus on channel morphology and landscape evolution on Titan (yes that Titan – the one in orbit around Saturn), and Robyn Polinsky submitted a paper to Landscape and Urban Planning on how vegetated roofs can help manage stormwater in the urban environment. Cool stuff! In October, Jordan once again organized the highly successful Greater Atlanta Geomorphology and Hydrology Research Conference, drawing a robust crowd from around the region. He also collaborated with Katherine Hankins on the acclaimed colloquium speaker series “Georgia’s Water Wars” (see newsletter front cover).

Professor Emeritus Truman Hartshorn authored a chapter titled “Transportation Issues and Opportunities Facing the City of Atlanta,” and Assistant Professor Katherine Hankins wrote “Retail Concentration and Place Identity: Understanding Atlanta’s Changing Retail Landscape” in the volume Past Trends and Future Prospects of the American City: The Dynamics of Atlanta, edited by David Sjoquist, Professor, Andrew Young School of Policy Studies.

Jeremy Diem (Associate Professor) established a continuous carbon dioxide (CO2) analyzer on the roof of Sparks Hall. Funding for the analyzer was provided by the University System of Georgia as part of its STEM (Science, Engineering, Technology, and Mathematics) initiative. The temporary Web site for the data is http://131.96.59.44/. Georgia State University is now one of the few places on the planet where ambient concentrations of CO2, which contributes to the Earth’s greenhouse effect, are continuously measured. Jeremy also co-authored a paper with current geography B.A. student Ricardo Rodriguez, current geography M.A. student Imani Morris, geography B.A. alumnus Amanda Murray, and College of Education Master’s student Melissa Hursey. The paper, titled “Upper-Level Atmospheric Circulation Patterns and Ground-Level Ozone in the Atlanta Metropolitan Area” will be published in the Journal of Applied Meteorology and Climatology. Jeremy has also been busy creating new labs for Geography 1112 (Introduction to Weather and Climate) as part of a three-year, half-million dollar grant from NASA entitled “Creating an enduring legacy of exemplary global climate change education for secondary science teachers and underserved students in Georgia.” The labs are hands-on and inquiry-based and make extensive use of NASA resources and software such as Google™ Earth. Students explore via the lab exercises ozone depletion, air pollution, water resources, and climate change as well as many other geographical topics.
Faculty News

Katherine Hankins (Assistant Professor), pictured below, recently began a new research project on faith-based community development in inner city neighborhoods. With colleague Dr. Andy Walter of the University of West Georgia, she is examining the activities of an urban ministry collective, which, by employing a "gentrification with justice" strategy, has worked to transform five impoverished neighborhoods in Atlanta (pictured below is a house in South Atlanta, a neighborhood which is the target of the urban ministry’s efforts). She presented preliminary findings at the Southeastern Division of the Association of American Geographers in November 2009, and at the Annual Meeting of the AAG in Washington, DC in April. Their article based on this research has been accepted for publication in *Urban Studies*. During summer 2010, Katherine will continue this research with support from a GSU Research Initiation Grant, interviewing "strategic neighbors" who move into poor neighborhoods to facilitate the transformation of disinvested places. With Drs. Erin Ruel and Deirdre Oakley in the Department of Sociology, Katherine is working on a project examining the person-environment fit of relocated public housing residents. In particular she is interested in how the social and physical aspects of neighborhood spaces influence the health and well-being of relocated public housing residents, as the last bit of public housing is demolished in Atlanta.

John Allensworth (Senior Lecturer) has had an active year of university leadership, traveling, and teaching. John has been very involved on the Asian Studies leadership committee which meets regularly to coordinate guest speaker colloquia and performing arts events for Georgia State University. John led his annual field trip for Kent State University to Nicaragua, in his capacity as director of directing Kent State University's Geography Department and Center for International and Intercultural Education sponsored field trips to Latin America. This past summer he traveled the Danube River from the Black Sea in Bulgaria to its headwaters in Germany, and in December and January, he made his fourth trip to Machu Picchu in Peru. John continues to be busy teaching four courses per semester. More recently, he’s enjoyed serving on MA committees and directed readings courses, which he finds tremendously rewarding.

Parama Roy (Assistant Professor) presented a paper, “Contradictions of Neoliberal Privatization of Urban Green Spaces in Milwaukee” at the Annual Meeting of the Southeastern Division of the Association of American Geographers. She also presented her preliminary findings from a new Atlanta BeltLine planning-related research project at the AAG meeting in April. The paper titled, “Whose BeltLine Is It Anyway?” was part of a session she co-organized to bring together research work on “Collaborative Urban Politics and the Civil Society: Challenges and Opportunities.” One of her papers, “Analyzing Empowerment: An Ongoing Process of Building State-Civil Society Relations – The Case of Walnut Way in Milwaukee” was published in *Geoforum*. Finally, she had a very enjoyable spring semester teaching a hands-on project-based class on qualitative research methods (see page 18).
Jeremy Crampton (Associate Professor) recently published Mapping: A Critical Introduction to Cartography and GIS, published by Wiley-Blackwell. Jeremy was invited to give guest lectures about his work in Vienna, Heidelberg, and at the University of Colorado, Boulder and Georgia Southern University. Jeremy also gave presentations at the IBG/RGS (Institute of British Geographers/Royal Geographic Society) conference in Manchester, England, and at the Annual Meeting of the Association of American Geographers in Washington, DC. One of Jeremy’s students, Zhanar Karimbayeva, wrote a thesis on Google map censorship in China which was very timely and interesting. She found that Google China didn’t allow the same degree of map detail as provided of China by the American Google maps, nor did it allow customization of the maps. She used an Internet “proxy” to access the Google China site as if she was looking at it from inside China.

Staff Recognition

Basirat Lawal, pictured above with Dean Laura Adamson and Dr. Crawford Elliott, received the 2009-2010 Outstanding Junior Staff Award from the College of Arts and Sciences for her tremendous contribution to the Department of Geosciences and to the university since she began her employment at Business Manager of the department in 2007. Congratulations, Basirat!
Introducing Dajun Dai, Assistant Professor

Can you tell us a little bit about your background, such as where you’ve lived, your family, and what brought you to academics and the field of GIS?

I joined the Geosciences department in the summer of 2009. I received my Ph.D. in GIS and Environmental Modeling from Southern Illinois University; Master of Science in GIS and Environmental Planning from Peking University, China; and Bachelor of Engineering in Environmental Planning and Management from Jilin University, China. Most recently, I was a Visiting Assistant Professor at Northern Illinois University. My areas of research include GIS and GIScience, spatial analysis and spatial statistics, urban health, transportation, and socioeconomic studies using GIS. I have a wonderful family: my wife Litao received her Master of Science in civil engineering last year, and our lovely daughter Jana who just celebrated her 1st birthday a few weeks ago. My wife and I enjoy watching her every day: her smiling, tearing, toddling… everything that we treasure so much.

I like to work in academics because this profession is challenging and interesting. The more we know, the more we don’t know. Only through this process can we build up our knowledge. Working in academics is also pleasing as I can always work with students. The best moment for me is to read students’ posters at the end of each semester along with these young faces, enjoying the giant leaps they make through the journey.

I love GIS. GIS has experienced amazing growth in the recent two decades. Location! Location! Location! Almost every problem is geographic. We are concerned about where the oil spill has affected. We are eager to know where are hit hardest with H1N1 virus. We prefer a safe neighborhood for living. We want to take the fastest path for our vacation hoping to save time and gas. GIS allows keep track not only of events, but also where these events occur. Only through GIS can we bring together efficiently information from many different sources, integrate it, and analyze it. So not only geoscientists enjoy GIS, but also professionals from other disciplines (e.g., public policy makers, criminologists, urban and regional planners, health professionals, emergency and public safety teams, and sociologists) appreciate GIS. Everyone is confident of a bright future for GIS. So knowing GIS and being able to analyzing spatial data are really critical for the present and for the future.

What are some of the research projects you and your students are working on?

My research projects are mainly in three areas. My first research area is transportation and urban planning using GIS. It mainly deals with the relationship between the urban form and traffic accidents. One of my students (Amy Moore) is using GIS and spatial analysis techniques to understand child pedestrian crashes in metro Atlanta as her thesis project. Through the project, we hope to understand which areas and what road/pedestrian infrastructures involve frequent child crashes, injuries, or even fatalities, and what lessons we can learn from the past crashes to prevent future problems.

My second area of research is to study health and wellbeing using GIS. It is no accident that many public health issues are now being quite heavily influenced by the spatial perspective. It is hard for example to now undertake a study of patterns of disease and its mitigation without using spatial data. Besides, disease occurrence does not stand alone; it is often a reflection of other problems, such as shortage of health care or a heavy disease burden in economically deprived neighborhoods. In order to understand a disease pattern and its risk factors, we need to integrate various data sets. For example, based on spatial analysis and spatial statistics, my recent study on Detroit shows that breast cancer cases are more likely to be diagnosed at later stages in areas with inadequate health care facilities. It also visualizes persistent black residential segregation in some areas, which accounts for a significant portion of the variation in late-stage diagnosis. This work was recently accepted in Health and Place. Atlanta also faces the similar challenges: where are the low-income neighborhoods? Do they enjoy the same opportunities (e.g., health care access, education, employment, transportation mobility, and public safety) as their high-income counterparts? If not, does race play a role in the inequality? More importantly, where is the inequality likely to occur? With the support of the Research Initiation Grant, one major project next year for me is to investigate child lead poisoning around Peach-
DeKalb Airport (PDK) in DeKalb County. Collaborating with the Georgia Department of Community Health, I will assess where and to what degree the children living around PDK airport suffer from lead poisoning. GIS mapping and spatial analysis will be major components of the project.

My third area of research is related to GIScience. At times the current GIS techniques are limited in solving problems. For example, network-constrained events (e.g., traffic accidents or car theft) challenge the current spatial analysis methods which use straight distance on planar space. I am developing a network-based method to address this issue. Another project in the next two years is to develop a petrologic and geochemical information system funded by the Georgia Department of Transportation. In collaboration with Dr. Deocampo, this project will develop a web-based GIS application that delivers information on aggregate sources on internet. This final product will be delivered on the Georgia Department of Transportation website.

Describe your role with the Institute of Public Health, and your experiences collaborating with IPH.

I am one of the 16 faculty members hired based on the Partnership for Urban Health Research (PUHR). This is a university-wide commitment directed by the Institute of Public Health, seeking to understand how the urban environment affects the health and wellbeing of people. Currently I am a member of the PUHR Steering Committee. We have been meeting regularly and discussing the overall strategic directions of the PUHR.

It has been an enjoyable experience working with colleagues from the Institute of Public Health. I collaborated with the PUHR program manager, Mr. John Steward, and a student (Emily Taquechel) on the assessment of pedestrian crashes and the built environment around Georgia State University Campus using GIS. Last fall, we were invited to present the research in a national conference (National Environmental Public Health Conference). This work is now under review as a peer-reviewed journal article.

What is most exciting to you about the field of GIS now, and how would you like to see the GIS program at GSU change and grow?

GIS and its synthesis with spatial analysis, which is known as GIScience, become a wider edifice than merely hardware and software. It has been a fast-growing field because of its special techniques that have been developed to handle spatial data, the special analysis methods that are critical to spatial data, and because of its power of integrating various data sets, in particular spatial data. Many of today’s professionals in geography and other disciplines (e.g., sociology, anthropology, city and regional planning, public policy, public health) all share the same excitement about GIS.

Our GIS program at GSU has been a successful model to provide students with strict training in GIS. I would like to see our GIS program become a leading force in the region and nationwide that promotes multidisciplinary studies on urban and environmental issues. We have a strong faculty team, a great student body, and necessary infrastructure. So I am very optimistic about the growth of our GIS program.

What do you like most about Georgia State University, and working in the Geosciences department?

What I like most about Georgia State University is its location and growth. Located in the heart of Atlanta, GSU is full of opportunities as a leading urban research university. It grows not only in terms of student and faculty populations, but also as an intellectual environment for research. My research is centered on spatial analysis of people and place using GIS, so I feel GSU is very attractive to conduct my research.

Geosciences department is a great unit. The department has a very supportive and friendly working atmosphere. Colleagues are also very kind and collaborative. I also enjoy working in the department because of our diligent and excellent students. Students are so eager to learn GIS. They conduct wonderful research projects using GIS. For example, two students Dee Jordan and Jack Reed presented their GIS projects in the GSU undergraduate research conference in the spring semester. Both received great compliments from the judges. It is really an enjoyable experience working with our students.

(Left, Dajun Dai with Dee Jordan in front of her poster, with Hassan Babaie.)
Student Achievements

Dee Jordan, right, pictured with US Surgeon General Dr. Regina Benjamin. Dee, B.A. Geography Spring 2010, will enter the Master’s program in Geography beginning in fall 2010. Dee received a National Cancer Institute R25E Summer Research Experience in The University of Texas M. D. Anderson’s Cancer Prevention Research Training Program to use her GIS skills to map health risks in Galena Park, Texas. On June 22-23, she attended the “Assessing the Human Health Effects of the Gulf of Mexico Oil Spill” conference, where she met the U.S. Surgeon General and other top health officials.

Gamma Theta Upsilon

As of Spring 2010, the Gamma Theta Upsilon chapter of Georgia State University has been revived. Six new members were initiated, including (pictured left to right) Jamie Bruce, Paul Lorenc, Nicole Strayhorn, Shannon Lee, and not pictured Leslie Bienenfeld and Caitlin Higgins. In order to be invited to join GTU, students must maintain a 3.3 overall G.P.A. as well as a 3.3 G.P.A. in geography.
Students in the Geosciences senior seminar spent the semester exploring the geography and geology disciplines, culminating in original research projects, ranging from examining attitudes towards recycling (Shannon Lee), to looking at the sorption potential of lead in different soil types (Elanor Heil) to examining land cover change of ecologically protected areas in the state of Georgia (Derek Jaworski). Pictured from left to right: Alan Nyugen, Giovanni Marrero, Derek Jaworski, Ricardo Rodriguez, Shelley Clopton, Shannon Lee, Elanor Heil, Tony Jaeckel, Mark Andrews, and Dee Jordan.

*Graduated Fall 2009, Spring or Summer 2010
Student Achievements

At Geosciences Night 2010, Dr. Crawford Elliott recognized the outstanding achievements of students in the department for the 2009-2010 academic year. In particular, he recognized students for their community service, their high academic achievement, and their excellence in teaching and research. The Department of Geosciences honors the 2010 award recipients:

**Ogren Memorial Scholarship**, for leadership in the department: **Jack Reed** (pictured above) and **Ricardo Rodriguez** (pictured right)

**Ernest Fritz Geology Field Camp Scholarships**: Emily Scherer, Charles Dyarmett, Semir Sarajlic

**Field Camp Award for 2009**: Jack Reed

**SGE Graduate Student TA Award**: Ross Martin and Patricia Berry

**SGE Tarr Award**: Stuart Hardemann and Jack Reed

**American Mineralogist Award**: Jack Reed

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**Steven Rodesney** received an NSF travel award to attend the 73rd annual meeting of the Meteoritical Society, which will be held July 26-30, 2010, at the Park Central Hotel, in New York City, New York.

**Matt Waller** completed his Master's degree in December 2009, under the direction of Dr. Katherine Hankins, where he authored a project “The Importance of the Regional Concept: The Case for an Undergraduate Regional Geography Course of Sub-Saharan Africa.”

Clay Mineral Society Travel Awards for 2010 given at the CMS Annual Meeting in Seville, Spain, include Marek Szczerba, Tom Naumann, Autur Kuligiewicz, Ali Hooshiar (back row); and Ines Mulder, Sara Moron and Irshad Bibi (front row).

**Outstanding Geography Major Award**: Shannon Lee

**Cartography Award**: Shelley Clopton

**Outstanding Geography Graduate Student**: Zoia Comarova
“The students were awesome...the class has helped us prepare for future endeavors, so please let us reiterate that...this is a road map for us. A really important one.” So reported the Park Manager of Sweetwater Creek State Park after Geosciences graduate students under the guidance of Dr. Leslie Edwards, teamed up with the Park during the Spring 2010 semester. He was inspired to write this after students in Geog 8050, Environmental Issues, produced a huge amount of information for the Park: a draft management plan; a comprehensive GIS that contains soils, aerial photographs, topography, watershed information, vegetation communities, urbanization trends, historic photographs and historic sites; GoogleEarth applications; and detailed back-up reports on stream quality, precipitation run-off patterns, ecological systems, and park history. These products were the result of long hours of work and many on-site visits to Sweetwater Park, where the students went out in the field with the park staff to document vegetation communities and historic sites. In this mutually beneficial project, the students were able to gain real-world experience in park conservation and management issues, and to see the park as a living laboratory for the issues they discussed in class. Meanwhile, the park gained a wealth of information that demonstrated the depth and breadth of the knowledge and skill gained in Geosciences.
GEOS goes to SEDAAG

Eight Georgia State University geography students, including Jamie Bruce, Leslie Bienenfeld, Michael Husebo, Zoia Comarova, Zhanar Karimbayeva, Susan Morrell, Laura Joseph, and Brian Vann attended the Annual Meeting of Southeastern Division of the Association of American Geographers in Knoxville, Tennessee in November, and one of our MA students Michael Husebo was the high-scorer in the World Geography Bowl team from Georgia. Because of his performance in Knoxville, he received support to attend the national meeting in Washington, DC, where the Southeastern Division team took first place in the World Geography Bowl Competition. Zoia Comarova, pictured below right, presented her co-authored research on an analysis of stream urbanization in various regions of the Chattahoochee River with Geos M.S. graduate Barbara Smuzyz and Dr. Jordan Clayton. Pictured below left: Michael Husebo conferring with UGA PhD student Matt Miller. Below center: Zoia Comarova and Laura Joseph (2010 Beltline GIS intern) support the World Geography Team. Below right: M.A. student Susan Morrell and Dr. Parama Roy attend the Geography bowl activities.
The 2009-2010 Geosciences Club developed and hosted many events, under the club leadership of Ricardo Rodriguez (pictured far left) and Jack Reed (pictured in the center with a red hat). Among the activities included a Park Day in Piedmont Park, a trip to the Tel-lus Museum (bottom left), and participation in the OpenStreetMap project, a nation-wide project in which interested citizens map features across various parts of the urban landscape.
GSU’s 2010 Field Camp started on May 25th in Dillon, southwest Montana, and completed on July 10th. The camp involved 17 undergraduate and 2 graduate students who had registered for the two Geosciences courses: Basic Field Geology (Geol 4120/6120) and Advanced Field Geology (Geol 4121/6121). These courses [http://www.gsu.edu/~geohab/pages/geol4009/geol4120-4121.htm](http://www.gsu.edu/~geohab/pages/geol4009/geol4120-4121.htm) involve several mapping projects dealing with rocks which range from the Precambrian to the Quaternary in age. These rocks were deformed through several tectonic events that include contractional Sevier/Laramide orogeny (Cretaceous-Eocene), extensional Basin-and-Range block faulting (mid-Tertiary), and younger Yellowstone hot-spot related thermal expansion and subsidence (time varies but is late Tertiary-Quaternary in Southwest Montana). The projects involve both traditional geological mapping on 1:24,000 topographic base maps, and digital, GIS-based geological mapping using toughbook and the ArcGIS application. The schedule of these variable mapping projects can be found at: [http://www.gsu.edu/~geohab/pages/geol4009/2010/schedule_of_Projects%2010.html](http://www.gsu.edu/~geohab/pages/geol4009/2010/schedule_of_Projects%2010.html).

The field camp also included an eight-day, camping road trip to visit the Yellowstone National Park, Beartooth Mountains and Grand Teton National Park to see their most significant geological features.
The spring qualitative research methods class got an opportunity to learn about one of the city’s biggest redevelopment projects, the BeltLine, through a hands-on learning experience. A group of 10 worked individually and collectively under Dr. Roy’s guidance to investigate how the first BeltLine park development in the Historic Fourth Ward is involving the community in the planning process. Students designed surveys, conducted interviews, took field trips and directly interacted with BeltLine planners, the city’s policy makers and community activists and residents in the process. Beyond the experience of conducting a real research project with social and policy implications for Atlanta residents, students also gained an opportunity to connect with the city’s BeltLine team. One of our graduate students, Laura Joseph, is busy working as a GIS Fellow for the BeltLine Inc during the summer.
GEOS in the field

Above, Professor Josh Inwood, Assistant Professor of Geography now at the University of Tennessee, led a tour of Auburn Avenue, explaining the significance of the different organizations, churches, and retail establishments for the Civil Rights movement. Participants on the tour included students from Geosciences and from the Urban Fellows program in the GSU Law School. Middle: Lisa Fahrenkrug, Julia Bryant, and Brian Vann observe Woodruff Park. Bottom: Students in Urban Geography look out over the Beltline’s quarry site, which is to be turned into a reservoir for Atlanta.

Top left, students in Urban Geography explore the ways in which public spaces are managed during a visit to Centennial Olympic Park. Joel Lemuel, Michael Husebo, Michael Grantham, and Koya Brown. Bottom left: Elanor Heil and Benjamin Nicoara.
GEOS in the field

During May 2010, students in Dr. Jordan Clayton’s “Field Methods in Geography” course, explored a variety of field methods, including orienteering, surveying techniques, streamflow and infiltration rate measurement, flow reconstruction, soil identification, suspended and bed load sediment sampling, water quality monitoring, benthic invertebrate collection, estimation of chemical weathering rates, landform identification, tree coring, microclimate measurement, and exploring the impact of development on natural landscapes. The course applies fundamental concepts in physical geography to hands-on, skills-oriented field exercises, involving travel to numerous nearby study sites. Students keep daily journals and give presentations during field exercises at each location, including gear demonstrations and background information regarding the physical and/or cultural landscape for that particular trip’s location.

Top right photo: from left to right (front row): Imani Morris, Jennifer Fisher, Laura Zaunbrecher, Cindy Pena, Jennifer McGraw, Lindsay Garcia; (back row, left to right): Mark Andrews, Ian Smith; above left photo: Kristina Davies; right, middle photo: Imani Morris; right, lower photo (from left to right): Laura Zaunbrecher, Jennifer Fisher, Cindy Pena
Upper photo (front: left to right): Lindsay Garcia, Jennifer McGraw, Jennifer Fisher, Cindy Pena, Kristina Davies, Imani Morris; (back, left to right): Ian Smith, Mark Andrews, Laura Zaunbrecher; lower, left: Jennifer McGraw; lower, right: Lindsay Garcia
GEOS CELEBRATES THE CAREER OF TIM LATOUR

Top: Tim LaTour and Eirik Krogstad; Dr. Michael Roden, guest speaker; middle: Dajun Dai, Ken Terrell, Dan Deocampo, and Jeremy Diem; below right: Dan Deocampo, Jordan Clayton, Dajun Dai, Andreas Shoredits, Michael Husebo, and Shankar Pokharel; above: colleagues and friends gather to celebrate Tim’s career.
The Department of Geosciences celebrated the career of Tim La Tour on April 23rd, 2010 with an on-campus reception in the General Classroom Building, a talk given in Tim’s honor by Dr. Michael Roden (Professor and Chair of Geology at UGA) and a reception at Crawford Elliott’s house that night. These events, pictured on these pages, were well attended by Tim’s friends, colleagues, and former students. Mike Roden gave a wonderful talk on the mineralogy and crystallography of apatite which reminded us of some of Tim’s interests in mineralogy and crystallography. Afterwards, we ended the day with one more reception at Crawford’s house that lasted to the early hours. Some gifts and moments were shared, including a scrapbook showing Tim at various stages of his career here at GSU. The Department congratulates Tim on a long and productive career!

Pictured on this page, clockwise from top left: Tim and Donna Khallouf Tucker; Bob Jarret and Kit, Tim’s wife, share stories; Leslie Edwards and Basirat Lawal celebrate at Crawford’s house; below: Dan Deocampo and Dajun Dai at Crawford’s party; Ken Terrell, Hassan Babaie, and Tim Lawrence; Atieh Tajik and Katyoon Mobasher celebrate Tim’s career.
On Thursday, April 29th, approximately 80 students, faculty, alumni, and friends, gathered in the Special Collections gallery in Library North to enjoy a lecture, awards ceremony, and reception. Professor David Feldman, Professor and Chair of the Department of Planning, Policy and Design at the University of California, Irvine, and Professor of Political Science, gave an excellent presentation titled “Chinatown” or “Underground”? How L.A.’s predicament can help Atlanta better manage water: a California perspective on Georgia’s Water Wars” about the similarities and differences in how Los Angeles and Atlanta have historically managed their water needs. Following the lecture, Dr. Crawford Elliott presented departmental awards to recognize the outstanding achievements of graduate students and majors in geography and geology (see page 12). Following the awards, students, faculty, alumni, and friends mingled, making connections, getting reacquainted, and celebrating an excellent academic year.
Top left: Professor Feldman; top right: Shannon Lee, Bob Jarrett, Elanor Heil and other listen to Professor Feldman; second row, left: Laura Wilson (M.A. geography, ’09), Robin Billings (M.S. Geology, ’08), and John Allensworth; second row, right: Giovanni Marrero and Alan Nguyen listen to the presentation; bottom left: Kirsten Guerra, Elanor Heil, Shannon Lee, Dee Jordan, and Shelley Clopton; bottom right: Derek Jaworski, Laura Joseph, and Zoia Comarova
Alumni News

Michael Woodward, B.S. Geology ‘08 writes “Georgia State Geoscience Department provided me with a great background in geology and the desire to go to grad school. I think GSU was a great educational experience. Unlike any time in my education, the time I spent as a Geology major at GSU, I met and became friends with several students and became somewhat active within the department. The professors were very friendly and helpful, and inspired interest. After graduating from GSU, the next fall I started the Masters in Geological Engineering program at Colorado School of Mines. My desire to come here began with the road trip to Montana for the GSU Geology Field Camp. The focus of my studies here involves the investigation, analysis, and mitigation of natural and man-made hazards. These hazards involve landslides, rockfall, dams, liquefaction and fault activity, underground excavations, collapsible soils, beach erosion and nourishment, etc. For my masters project, I am working with the Colorado DOT and will be traveling throughout Colorado to multiple slopes to characterize and rate the rockfall/slide hazards present. Currently, I am working on finishing my project and finding a job. There aren’t many, but I am looking at jobs in both Atlanta and Denver.” ~ Jay Forrest

M.A. Geography 1998, sends his news: “While I continue to work at the Georgia Tech Library (since October 1995), on July 1st, 2009 I began a new role as a Librarian. In this role, I am the Subject Liaison for the College of Computing and for GIS and Spatial Data. Since GSU, I have earned a Master’s in City and Regional Planning with a focus on Environmental Planning from Georgia Tech (2003) and a Master’s of Science in Library and Information Studies from Florida State (2009). I am also currently a doctoral student in the College of Architecture at Georgia Tech. At GSU, I took my first courses in Cartography and GIS, and have taken several GIS-related course at Georgia Tech. My wife, RaeAnne, and I currently live in Woodstock with our 2 cats.” ~ Bob Rosen, B.A. Geography, 1987 sends his news “After completing my BA at GSU, I moved to Philadelphia and attended grad school at the University of Pennsylvania. I received an MS in International Development and Appropriate Technology in December 1988. After working for the university for a year, I began working for an environmental consulting firm, and worked largely under contract to the Environmental Protection Agency. After working as a consultant for 18 months, I was hired by EPA Region 2 (NY/NJ) in January, 1991 as a Federal On-Scene Coordinator, directing federal resources during chemical and oil emergency responses. In June 1992, I relocated back to the Atlanta area where I continue to work for EPA. My grad studies were a departure from my undergrad work at GSU, and my career decisions deviated from both GSU and Univ of Penn studies. However, the various tools gained at both schools have been very helpful in my career. ~ Robert Cochran (M.A. Geography, 2009) received an assistantship to attend the PhD program in geography at the University of Illinois and began in fall 2009. ~ Dan Miller Runfola (B.A. 2008) recently co-authored a paper with Dr. Katherine Hankins about the geography of environmental injustice in Atlanta, which will appear in the July/August issue of ACME, the e-journal of critical geographies. This paper came out of research conducted by students at GSU during the Geosciences Learning Community research project of 2007-2008. ~ Gary Caines, B.S. Geology, 1974, writes that he is now living with his wife on 32 acres near Hiawassee, Georgia in the Blue Ridge Mountains surrounded by National Forest. He is working as Ra-
diological Operations Program Manager for Honeywell International. He has global responsibility for all radiological activities for the ACS division of Honeywell. He travels extensively in his job, mostly in Europe, Asia, and South Africa. Gary’s hobbies include competitive shooting and flying his Cessna airplane. His B.S. Degree from GSU “provided a good foundation for [his] subsequent M.S. From Georgia Tech and his working career.”

Randy Smith, BA Geography, 1985, lives in Cumming, Georgia, and is self-employed running his own graphics design business named Smith Graphics Design, Inc (www.smithgraphicsdesign.com). He worked as a Graphics Technician in the GSU Geography Department and gained invaluable knowledge on early computer graphics systems. He writes that “the faculty and staff were very supportive and I really enjoyed my time there both taking classes and working. I still utilize some of the skills I learned at GSU in my job today.”

Will Steele, B.S. Geology 1979 writes that he retired from the Georgia Environmental Protection Division (GA EPD) in May of 2008 and went back to work part time with EPD in January 2009. He writes, “Life is great. I enjoyed my time at GSU and still keep in touch with many of my old geology friends.”

Scott Huckaby, B.S. Geology, 1983 writes, “After doing Master’s work in geology at Georgia State in the mid-80s, I took a position as a high school science teacher at a private school in Atlanta. I am now in my 20th year doing the same. I still live in the same small town in the Piedmont and still teach Geology using the famous Tarbuck & Lutgens text I had in Introductory Geology. I have also been and still am a firefighter with the City of Meansville and currently am Chief of the department. My daughter Catherine is 13 and very interested in science.”

Karen Feltz, B.A. geography 2001 is “gainfully unemployed” but a fulltime councilwoman for the City of Clarkston, Georgia. She utilizes “every aspect of my skill sets in my public service—as a cul-
tural geographer/anthropologist in a Refugee Destination Center—Clarkston.” She concurrently uses the urban geography specialities as well. She “loved [her] time at GSU” and still maintains relationships with several professors and other students—now professionals in associated areas of linked professions. She writes that she was president of GTU (Gamma Theta Upsilon), the geography honors society, and maintains those friendships also. She has “always been fascinated with people, places, things of cultural origin.” She elaborates, “I continue to educate myself with new areas of study, new theory and new technologies which highlight expanding concepts in the practice of world sciences. I currently hold a seat, through the Georgia Municipal Association, at the state legislative level—on the Department of Natural Resources Water Committee, which is certainly timely. Geography and all it entails has served me well.

And, despite recommendations to the contrary, I took all of my specialty geography classes out of order, one from interest and excitement, but mostly to study with leading professors before their retirement: Dr. Richard Pillsbury, Dr. Truman Hartshorn, Dr. Borden Dent, before he passed; Dr John Yin—I could not have asked for better educators to in-

Frank DePinto of Chattanooga, Tennessee, M.A. Geography, 1996, pictured below in the Chattanooga Times Free Press for his work on recycling advocacy, writes that after a three-year campaign, he got ‘curbside recycling’ back in Chattagnooga. He used research, writing, and presentation skills he gained from his time at Georgia State to make his case for more environmentally-sensitive waste practices in Chattanooga.
spire my desire to soak up all I could in the world of geography.”  

∞  **Dave Butler**, B.S. Geology 1991, works in the Dekalb County Parks Bond and Green space office acquiring and managing property for parks. He volunteers with local environmental organizations and in his community. His experience at GSU “encouraged [him] to be involved in my community and provide leadership wherever possible.”  

∞  **Robert Yoder**, B.A. Geography, 1991, lives in Seattle, Washington, where he has lived for the past fifteen years. His wife, Becky Wentling, and he have 3 1/2 year old boy/girl twins—August and Rose. He presently works as a Radiologic Technologist (x-ray tech) at Harborview Medical Center. He and his family enjoy hiking, camping, and other outdoor activities in the beautiful Cascade Mountains.  

∞  **Trudi Briggs**, B.S. Geology 1995 and M.S. Geology 1997, writes that she taught for three years at Georgia Perimeter College. She is now retired. Her children are grown and married, and she now spends lots of time in Colorado playing golf and skiing. She “loved [her] time at Georgia State,” writing that she made many friends and had many good laughs.  

∞  **David Nabers**, BA Geography 1992, works as a GIS Analyst with the state department of Forestry, after previously working for a private consulting firm. He lives in the Senandoah Valley with his wife and kids. He writes that “GSU gave me a start in GIS for landscape analysis and mapping.”  

∞  **Mary Leta Cashin**, MA, Geography, 1996 works for the U.S. Environmental Protection Agency as an Environmental Scientist. She writes that “she loved [her] Georgia State experience on the urban campus!”  

∞  **Tara Prizito**, MA Geography 2009 began full time with the U.S. Forest Service as a Cartographer and reports that she is “very happy with this job!” She still studies Middle Eastern culture and Arabic language on her own and would like to eventually obtain a job in this field. On the weekends, she occasionally bellydances at local Middle Eastern restaurants as well as volunteers teaching English to an Iraqi refugee family.  

∞  **Joe O’Neal**, B.A. Geography 1969, M.A. Geography, 1974, of Conyers Georgia, reports that he is a retired high school teacher.  

∞  **Joel Sneed**, B.A. Geography, 1971, of Flowery Branch, Georgia, writes that he initially majored in geology but changed to geography during his senior year due to his inability to attend geology camp. He received a commission in the Army Corps of Engineers, where he was a Topographic Officer and Terrain Intelligence Officer, which he felt prepared for by his time at GSU. After six years in the Army, he made a career in construction, where he often draws on his knowledge of geology from his studies at GSU. He completed coursework for the MA in geography in the early 80s, but did not complete his thesis. The methods of research learned during that time “have been an asset in my vocation, speleology, where I have made finds and published on archaeology and paleontology.”  

∞  **Mandi Reinshagen**, B.S. Geography ’07 sends her good news: she’s just been accepted to the Colorado School of Mines graduate pro-
gram. She will pursue a Master of Science degree in Economic Geology, beginning in fall 2010. She is “very excited for this move in [her] career... and knows “that it will offer some eye-opening experiences and some rewarding opportunities.” She is “very confident that [her] undergraduate education and experiences in the Department of Geosciences set a firm foundation for [her] work at the Georgia Department of Transportation (where she is currently employed) and for future achievements at the School of Mines.” Congratulations, Mandi! ∞

Stephen Calder, BA Geography 1990, writes that after graduating from GSU with a BA in geography (specializing in cartography with lots of classes with Professors Dent, Hartshorn, Dodge, and Bederman) he “drifted into Land Surveying” and rose up in the profession quite rapidly, becoming licensed in 2002. He has worked at medium-sized engineering companies at several positions, including running the land surveying department. He also did a 3-year stint of working for himself as a land surveyor out of his house in Gwinnett County. Currently he lives in Mobile, Alabama, working for Thyseenkrup Steel Mill, aligning machinery as it is installed. He writes that “the machinery has to be placed and oriented with incredible precision, down to the 6/1000th of an inch,” a field known as “industrial metrology,” which is a very rare form of surveying. He reports that he is “quite proud of [his] GSU diploma, notably displayed on my home office wall. It took a few years for its true worth to become apparent to [him]. First off, he is licensed as a Professional Land Surveyor in four states now, and three of those states have a degree requirement to be licensed. And of course, being licensed allows one to garner a much higher salary. Likely [his] college education has paid for itself by now. But more than that, [his] degree in geography confers a measure of authority to my professional opinions, that very few other land surveyors have. [he has] become a bit of an authority on drawing survey plats (read maps) having written articles on the subject, having entered several plat-drawing contests, and having generally opined about it for over 10 years in internet forums and professional society meetings. Drawing land survey plats is clearly a very specialized act of cartography. It is also a dying art... So I do what I can to teach and persuade my colleagues about how to graphically communicate our findings to our clientele. And with [his] college degree, [he has] an effective counter to their arguments such as ‘that’s how I was taught,”... [He] has a measure of authority, one that is objective and time honored. For that [he] will always appreciate [his] education.”
Wanted: More Alumni News

Dear Alumni,

We thank you for sharing your news and time with us over the past year. The newly activated email account geosnewsletter@gsu.edu has resulted in many alumni updates, and we encourage you to email us your goings on, send pictures, and keep in touch! If there’s anything we can do to improve your experience as an alum of our department, please let us know!

Come visit!

In person:

The Department of Geosciences office is 340 Kell Hall. Geography faculty offices are located on the third floor of Sparks Hall. Geology faculty offices are located on the third floor of Kell Hall.

On the phone:

Main office: 404 413-5750, Fax: 404 413-5768

Visit our website:
http://www.cas.gsu.edu/geosciences/
Dear Alumni and Friends,

Fostering intellectual and professional community in the Department of Geosciences requires that we provide events and opportunities for faculty and students to travel, to attend lectures, and to participate in professional meetings. We are asking that you consider donating an amount to the Geosciences funds, which will enable the Department to offer a variety of opportunities to future geoscientists! We appreciate your contributions to these funds.

GEOS GENERAL FOUNDATION ACCOUNT

Funds contributed to this account will support

**Student Travel.** The department would like to enable graduate students and undergraduate students to attend professional meetings, where they can see the depth and breadth of geography and geology. The professional meetings for the 2009-2010 year are in places such as Knoxville and Washington, DC, which are costly for student budgets.

**Student Research.** The department is interested in cultivating the love of and experience in original research projects. Many of our Master’s students complete strong theses, which often pave the way for Ph.D. work. The department is very interested in being able to provide a fund to assist students with the expenses associated with fieldwork.

**Colloquia.** A strong department is one that gains national exposure through faculty publications and departmental participation in professional meetings. In addition, a strong colloquium series enables guest speakers to share their work with faculty and students. An active colloquium series is a sign of a healthy, intellectually-engaged department.

**Faculty Recruitment.** As our department expands, we anticipate hiring more outstanding scholars. To do so, we rely on our foundation funds to recruit and invite potential new hires to our department.

**ERNEST FRITZ MEMORIAL FUND**

The Ernest Fritz Memorial Fund is devoted to supporting scholarship and instruction in conjunction with the Geology Field Courses in Montana. The fund was established to support Geology field camp with the first priority being the support for scholarships on a need basis to help defray the cost of attendance. The second priority is to provide operating support for field camp with the intent that this might lessen the cost for all students.

Please designate the amount you would like to give and the desired fund you’d like to support. Checks should be made payable to “Georgia State Foundation/Geosciences” and mailed to GSU Foundation, Georgia State University, PO Box 3963, Atlanta, GA 30302. All donations are tax-deductible.

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