Sarah Thompson
Keeping company with Georgia’s heritage of trees

“I frequently tramped eight or ten miles through the deepest snow to keep an appointment with a beech-tree, or a yellow birch, or an old acquaintance among the pines.”

Henry David Thoreau

You may think you’ve known tree lovers, but most pale compared to this University of Georgia team. Sarah Thompson (BS ’05; MS ’07) and horticulture professor, Tim Smalley, spent the last year locating and documenting Georgia’s most significant trees.


Thompson and Smalley’s investigation began with the Georgia Forest Landmarks and Historic Tree Register in February 2006. It expanded when they sought the input of extension agents, master gardeners and the Garden Club of Georgia to contribute their knowledge of trees. Their stories proved evocative, historically important or simply unusual. The team’s Web-based project, www.uga.edu/significanttreesofgeorgia, posted in April of last year, allowing online nominations. From there the project truly sprouted.

“The public response was stirring,” says Thompson. “And everyone we met has been incredibly nice.“ The nominated trees were sometimes landmarks at risk of being lost.

“People know exactly where they are,” Thompson adds, “but the information is vague or resides with only a few.” She describes how nominees met the team to direct them to tree sites and describe each tree's historical significance.

Using GPS (Global Positioning System) technology to pinpoint tree locations, the team covered 5,000 miles in seven months beginning in June 2006. At the end of their quest,
the studentprofessor team had mapped, photographed and measured more than 200 nominated trees. Approximately 300 nominators participated in the project, and quite a few were duplicate nominees.

Thompson and Smalley are not the only researchers desiring to preserve significant trees. There are other programs, Smalley says, citing Noble Trees of South Carolina, a program at Virginia State, and the Remarkable Trees series.

For years Smalley, an unabashed, yet seasoned tree lover, had the idea of recording unique trees while interweaving their histories. While conducting research on ornamental plants and leading garden tours throughout Europe and the United States, he made notes on memorable trees. On a visit to the Augusta National Golf Course, Smalley experienced a special treat normally reserved for professional golfers. He was permitted to drive a golf cart down the magnolia allée (often a feature of formal gardens). “It made the hair stand up on the back of my neck,” Smalley remembers.

When Sarah Thompson, then an undergraduate, went on a study abroad trip to Edinburgh, Scotland, she joined Smalley’s student group on the Royal Mile. The students walked past Greyfriar’s Kirkyard Cemetery and the locked gates of Dunbar’s Close, site of a re-creation of a 17th century garden. One by one the students peeled off, Smalley says, to enjoy other pursuits. Only Thompson remained at the end of the walk, still taking notes.

“She was inquisitive, tenacious, articulate and intelligent,” Smalley says.

The result of the research project is more than an artistic or even scientific record of beautiful images. During their travels, the two researchers came to realize the connection people hold with trees. Thompson asks, “How do you explain when people walk up to a tree and gasp, their eyes wide with amazement?” She says she gasped at the first glimpse of many trees, including the Majestic Oak in Savannah.

“There is a great respect and awe for trees,” Smalley says. Trees are reservoirs of emotion. Some trees, he says, evoke amazement. Others evoke memories, and even sadness, such as the Tifton Magnolia. Once a proud centerpiece of a Tifton, Georgia park, Smalley describes how the landmark magnolia tree was burned to the ground and is now a charred remnant of the giant it once was.

The book documents the often poignant stories, histories and awe-inspiring qualities attached to these remarkable trees as well as Georgian history. Ultimately, the researchers hope their creative project will educate the citizens of Georgia about the historic trees in their communities and encourage others to protect these significant trees.

With graduation on the horizon, Thompson has reluctantly halted her collection of trees for inclusion in their research. Smalley, she assures, continues the journey.

For further reading To glimpse the gardens along the Royal Mile

For more information on The Tree that Owns Itself
The tree that owns itself is colorfully described as Athens’ oldest living property owner. The oak’s exact age, like its history, is imprecise, but Athenian’s affections for the white oak are fact. In 1890, an Athens newspaper related how Colonel William H. Jackson devised a will to protect the tree sometime between 1820 and 1832, when the tree was considered the largest in Athens. Jackson reportedly deeded the 64 square feet of land surrounding it to the tree itself. The deed itself disappeared but the story of the oak and its successor remain.

The original tree died decades ago, but Athenians planted a seedling from one of its acorns. The tree that now grows near the intersection of Finley and Dearing Streets is sometimes called the Son of the Tree That Owns Itself. It’s considered in the care of municipal authorities and the Athens’ Junior Ladies Garden Club is known as its advocate.

The Nation’s Oldest Trees

Ordinary cedars and firs have a similar lifespan to a human. These trees are much longer lived than the more decorative dogwoods, willows and cottonwoods. Yet the world’s oldest documented trees, by contrast, can live as long as 5,000 years. There are baldy cypress trees on Georgia’s Lewis Island that reach 6 to 7 feet in diameter. The baldy cypress can live 1,000 to1,300 years, which means some of these cypresses stood long before Europeans arrived in North America.
Can a blimp change the future of irrigation?

On a perfect day in southern Georgia the weather is not windy enough for kite flying, but exactly right for launching a blimp. Glen Ritchie, doctoral candidate and research professional in UGA’s department of crop and soil sciences, inflates and then teases a mail order, helium-filled balloon out of what is joking called the “blimp port”. The “blimp port” is a garage at the C. M. Stripling Irrigation Research Park in Camilla, part of UGA’s Coastal Plain Experiment Station.

A field of flowering canola bows to a gentle wind as Ritchie and park superintendent Rad Yager rig the white blimp. The canola is a colorful anomaly, Ritchie explains. The field will later be devoted to cotton. Cotton research is what Ritchie knows well. Underneath the blimp, Ritchie attaches a plastic container filled with cameras and electronics to tie lines. The cameras, near infrared and conventional, supply Ritchie with different information about the plants’ ability to reflect light. This precisely informs growers when to irrigate—no guess work and no wasted water.

“Yeah—it’s Tupperware,” Ritchie confirms as he tightens a slip knot tethering the container. He shopped spy shops, kitchenwares and hobby shops for the components needed to perfect his idea. “We tried to think of something more,” Ritchie pauses, seeking the right phrase, “Well, anyway, cheap. So we cut holes in the Tupperware container’s base and used a molding compound to hold the cameras in place. It was the only thing that worked.”

For under $1,500, Ritchie developed his idea. It’s an easy guess that Ritchie is not a spy shop habitué. But he is the resourceful son of northwestern dairy farmers, who grew their own livestock feed and respected the impact of drought cycles and irrigation.

The researcher wears khakis and a crisp tan shirt, complete with the logo for the Georgia Cotton Commission which funded Ritchie’s research. “Water was such a big issue,” says Ritchie, recalling his Idaho farm experience. “When you don’t get rain, water’s always on the front of your mind.”
irrigation," he explains. "But we needed a remote sensing platform that would be available at a moment's notice and give us images that we could look at quickly."

Ritchie squints while gently releasing the blimp, which soars then stops 300 feet above the field. Within minutes, the camera lenses click via a transmitter Ritchie controls, gathering important data about the crop’s moisture and stress levels in a 4-acre area. "I needed a ham [radio] license to legally operate the little video transmitter, so Kristina (Ritchie’s wife) and I studied for a month and [each] took the test and passed,” says Ritchie.

For decades, scientists have known that plants under stress change in both color and growth patterns. Stress influences plants ability to reflect light. The camera lenses beneath the blimp capture this information within seconds, and Ritchie then downloads the information to a computer for statistical analysis.

The images supplied by the blimp’s cameras reveal application needs, too. "So there’s less chemical used,” Ritchie explains. "I saw this as something that I could actually see applicable to production agriculture. And water [conservation] seemed like a solution because it’s something everyone uses."

**Vaulting to Celebrity**

The two men chuckle over how the blimp inspires rubber-necking. Passersby hit their brakes during the blimp’s inaugural appearance in the summer of 2004. Soon the Associated Press got wind of the blimp, too. A July 2004 article was picked up nationally.

“Yes,” Ritchie says, his eyes on the transmitter. "My parents read about it in Rexburg, Idaho."

Ritchie and the blimp are nearing research celebrity, judging by the spate of headlines they inspired. "We were going out, just doing our research, and suddenly we had people calling up and coming out to the farm. We had people coming out to write about it,"Ritchie says.

Since first soaring several hundred feet above the research fields, the blimp generated stories in Cotton Farming magazine, and on the front pages of Florida and Georgia newspapers. Yager keeps copies of these and other media mentions in a manila file. (Flying the balloon any higher than 300 feet requires clearances from air traffic controllers.)

In an agricultural area, farmers easily recognized the potential. Farmers who could ill afford to hire helicopter or plane pilots to obtain aerial data were fascinated by a reasonably low-tech, non-intimidating solution posed by a blimp.

There was also the undeniable fact that the blimp held appeal. There was something grin-inducing and original about a blimp bobbing over an open field beneath a cotton-puff filled Georgia sky.

**A Magnificent Man and His Flying Machine**
Ritchie, the Idaho transplant, is a parent of four children ages 1 to 7. He has ever-deepening ties to the South and to the agricultural tradition, and agricultural research will be his life’s work. He moved to Tifton four years ago for doctoral study at UGA, bringing his family with him in a rented truck his father helped drive. He and his family have become increasingly involved with the Tifton community. Another benefit of his blimp research has been meeting other ham radio operators. The Ritchies participate in statewide public safety drills.

Ritchie patiently explains to everyone—including 5-year-old daughter Erin—about his fascinating contraption and how it saves water.

Water scarcity is an increasing worry for the nation’s agricultural industry, swiftly becoming a defining issue. The state of Georgia monitors agricultural water usage. “Most of the farmers have flow meters installed on their pumps now, so the state’s able to see how much water they use,” Ritchie says. “There are pumping costs, too. Running a several ton center pivot around the field would cost you some money...

just the cost of the pivot is usually about $150,000.” So when Ritchie went to a school in Tifton “for show and tell,” he brought the blimp along to the wide-eyed children’s amazement. He recounted purchasing the blimp for $500 over the Internet. He compared the remote control system to those used for toy airplanes.

Afterward, small hands tugged on the lines and felt the blimp pullback. “The demo was pretty hands-on,” Ritchie quips. “The kids enjoyed the blimp.” So do adults, he adds, smiling.

Ritchie can no longer guess how many times he’s secured the tie lines, adjusted the cameras and launched the blimp until it ascends 50 feet and higher. Ritchie’s spirits climb, too. His dissertation is finished and the wind is at his back. “We can save some water,” Ritchie says. No one leaves the field or the blimp behind after many pictures are taken, for it’s the sort of day for being out in the firmament. And it doesn’t hurt the mood at all that three adults are playing with some important electronic gadgetry as one bloated white balloon, filled with more promise than helium, bobs and sways against the cerulean sky.
In Fields of Canola Gold...
“An inch of rain water on an acre of ground represents 25,000 gallons of water. Looking at a field, you can save substantial water. The next step, assuming I’m still here after the summer, is we’re going to look at combining estimates of growth for irrigation with plant growth regulators,” says Ritchie (top left). At right: the remote control system used to activate the cameras. Above, Ritchie with Ivey Griner, field crop manager, standing midst the canola at the experimental field.

“The blimp research has been very interesting to watch,” says Rad Yager, park superintendent (not shown). “I initially viewed this project as a little far out. Didn’t think it would ever be of much use to a working farm down here in South Georgia. However, my thoughts have changed and I look at not only this project but many of the things we do as potentially powerful management tools.”
Heather M. Nelson

**Heather M. Nelson**
A food sciences expert with an appetite for life

*Whether she’s scrutinizing spawning salmon on Kodiak Island or devising a better snack on the UGA campus, Heather M. Nelson never lacks grit. She’s at her best when challenged and treats scholastics as a personal adventure.*

Heather Nelson’s story reads like a quirky film script. If she were the subject of such a movie, imagine a spunky Jody Foster (who Nelson resembles) having an intellectual awakening in the heartland where dairy and football rule. Then imagine Foster leaving a place she loved for academic adventuring. How did this happen?

It happened because Nelson is both smart and scrappy. She graduated from a class of only 40 in rural Wisconsin where her entrepreneurial parents taught Nelson to admire independence of thought and spirit. With a nudge from her mother, she left the quiet landscape she loves.

Most of the folks in Hillsboro, Wisconsin (population 1,302) figured Nelson would one day take over the family’s successful restaurant and bar. Nelson assumed the same thing. Working in the restaurant during holidays and summers felt comfortable and Nelson admired her mother’s success.

"I didn’t want to go to college,“ admits the new PhD, who graduated last December. One day her mother made it clear she expected her daughter to get an education before making final decisions.

With her family’s encouragement Nelson left her small town for the University of Wisconsin in Stout. Back in Hillsboro, family and friends teased the easy-going tomboy about her growing interest in academia. Soon Nelson shifted her major from chemistry to food science, with the restaurant in mind. On campus, professors and advisors noticed her scholarship and natural leadership and how dauntless she seemed.

In 2001, a professor proposed that Nelson go to Kodiak Island in Alaska for independent work and study in a salmon processing plant. From that point forward, events nudged Nelson further up the academic chain, propelling her onward.

**Finding New Frontiers**

The prospect of hardship didn’t faze Nelson; in fact, it excited her. She signed on for the
Alaskan experience in 2001 without reservation. She phoned her new landlords and questioned them about local life. They mentioned dirt roads and little civilization. She knew no one in the entire state, but she was 21 and ready for an adventure.

She got one, Nelson recalls and laughs. “I packed for Kodiak like I was going on a camping trip.” By May, she was off to work at Alaska Pacific Seafoods, and wouldn’t return until August.

When Nelson arrived in the outpost south of Anchorage she faced three work-filled months. Nelson worked seven days a week and had no time for sightseeing. A graduated cylinder and a clipboard were Nelson’s constant companions as she counted and recorded spawning salmon, measuring the flow rates of the water.

“The more females there are, the closer they are to the end of spawning,” she explains. Nelson carefully recorded how many of the salmon had eggs, as 55 percent meant the season was almost over. “The plant did so many things, including exporting salmon eggs to Japan and producing pouched and frozen salmon.” Nelson’s other jobs included quality assurance and devising recipes for the company’s salmon.

The Alaska that Nelson discovered was the quirky place typified by fact and fiction. “It was a little like (television’s) Northern Exposure. But there was no moose wandering the streets.”

Nelson’s only dread was of an unwelcome bear encounter. “I saw one bear, but that was because we actually went looking for it. We got on a floatplane and went looking for salmon and happened to see a bear.” Nelson hopes to return one day as a tourist.

“I really want to go back. My parents came and did all the tourist stuff. I didn’t get to do too much,” she recalls. Yet the Alaskan experience energized Nelson so much that she considered returning there for graduate school. After completing her master’s degree, a roommate encouraged her onward. The family business still loomed in her mind, but she applied to UGA at her advisor’s suggestion.

“A (UGA) professor named Rakesh Singh, looked at my application. I was admitted and found out the school started on the 15th. I realized I had two weeks to move.” Nelson drove more than 1,000 miles to Athens in a Dodge Intrepid with her dad and a family friend following closely behind in a U-Haul truck. As their small convoy entered the town of Athens, Nelson knew she had made the right choice. She settled in immediately and thrived.

She kept close to pet projects throughout her doctoral studies. For three years she judged for the Science Olympiad, a national science fair competition. Nelson cooperatively developed the Olympiad food science event, giving teachers and coaches ideas for teaching food science, and taught Olympiad coaches’ clinics.

“The first food science class I took I was a little obsessed,” Nelson jokes. Her competitive side worked to her advantage.

“This big organization, the Institute of Food Technologists, has a competition for new food
products,” she says. Her student team developed fruit chips, a hybrid tortilla chip with fruit purée. “They were actually pretty good. We called them Frips—Frip chips.”

Nelson’s UGA advisor asked her to organize a student branch of ASHRAE (American Society for Heating, Refrigeration, and Air-Conditioning Engineers) on campus alongside the Graduate School’s Dean Maureen Grasso and engineering professor Tom Lawrence.

“Once this was up and running I took a go at starting a student branch of the National Science Teachers Association (NSTA),” she says.

**Lining Up Her Next Shot**

Nelson was selected for the Graduate School’s Future Leadership Conference in 2005, where she solidified pursuing research over academic administration. “It was a good experience. I was happy to have been chosen.” Nelson maintains contact with people she met there, saying the conference gave her a perspective she had lacked.

Nelson received a number of grant awards from outside of UGA and also a graduate assistantship. A student researcher depends upon these awards she emphasizes, saying, “It’s hard enough to do it with assistance.” Awards from the Graduate School enabled Nelson to present research and participate in coaches’ clinics for Science Olympiad.

In January, Nelson joined the research and development department at Beam Global Spirits and Wine in Clermont, Kentucky. Beam and Titleist are among the famous corporate holdings of Fortune Brands. Naturally, the Titleist connection delights the golfer in Nelson.

This year, Nelson will travel back to Wisconsin for her 10th high school reunion. So far she’s the only PhD in her graduating class and, at 27, the youngest. Her boyfriend will receive his doctorate from UGA this May in food science as well.

“He may go to work for a rival,” Nelson says with a grin that suggests the competitive young scholar will welcome this challenge, too.
An avid golfer, Nelson sinks a shot whenever she’s not in the labs at her new research job in Clermont, Kentucky. “I have to stress that I love to golf, and I am not good at it,” Nelson insists. “My handicap is about 20 to 25 so I usually score about 100 on 18 holes. Not good!”
Mary Frances Early

On truth and reconciliation

On May 13, 1,150 candidates for doctoral, master’s and specialist degrees gathered in Stegman Coliseum. They heard an historic speech from Mary Frances Early, who desegregated the Graduate School in the early 1960s and became UGA’s first African American graduate. This year’s Graduate School’s commencement address, delivered by Early, received two standing ovations. The following is excerpted from her speech.

"On the morning of August 16th, 1962, when I looked at the printed program for my commencement, I noticed that the academic procession had as its first participant, the Sheriff of Clarke County, followed by the Marshall, the President’s party, the Deans’ party, faculty, candidates for advanced degrees and finally candidates for baccalaureate degrees! I immediately wondered: why the sheriff?; do they expect trouble? In talking recently to Stephen Brown, archivist of the Hargrett Library, I learned that this is indeed a long-standing tradition. I didn’t know about this tradition because I’d never attended a UGA commencement before, and was, therefore, nervous throughout the ceremony because I didn’t know if any protests or confrontations would be forthcoming with African Americans in the audience and an African American seated as a candidate for degree.

Though I don’t remember what Dr. Irvin S. Ingram, the speaker for my commencement said—I do vividly remember the day.

I was the first African American to receive a degree from this university. August 16th, 1962 was gloriously beautiful day. The azure blue sky with lofty white clouds overhead, the caravan of cars driven by family and friends who bravely came to support me on this historic occasion, and the realization that I was on the brink of actually receiving the degree—of achieving my goal, made me extremely happy.

You need to know that 1962 was my second summer and my fifth quarter at UGA and during my first quarter in residence (the summer of 1961), I had asked if my mother and some friends could attend a choral concert in which I was participating. I was told no; the university was only integrated for the three African Americans who had been admitted: Charlayne Hunter, Hamilton Holmes and me. The rationale was that the university could not protect my family and friends. The tenor of the times still indicated a hostile and potentially dangerous environment for African Americans. This commencement on August
16th was, therefore, the first time I had had guests on campus. It was also probably the first time that 74 African Americans had sat in the audience of a commencement at this university.

I knew that an historical event had taken place. I came back to campus a few days later to have a photo taken under The Arches by a photographer from The Atlanta Inquirer, a local African American newspaper. The photograph was used with an article titled: “First Negro Finishes University of Georgia: Graduates With Honors.” Six weeks later, on September 26th, the Atlanta Journal published an article titled: “First Athens Degree Awarded to Negro.”

I returned to campus in 1964 to work toward a Specialist degree because there were still very few African-Americans on campus. I received that degree in 1967. After that time, I heard nothing from the University of Georgia. It was as though I had never attended. In 1997, I was contacted by Dr. Maurice Daniels, then professor in the School of Social Work—now Dean of the School of Social Work. After thirty years of feeling like an invisible alumna as far as UGA was concerned—I had been discovered.

That was the past and you need to know that time and overwhelming efforts by many people here to heal old hurts have completely changed my outlook on this university. I now feel a part of UGA and I am happy to count myself among the many thousand active alumni.

The history or roots of that past, however, are not forgotten because they connect all of us to a sense of identity of who we are and how very far we have come. Wherever your path leads, never lose sight of the humanity of others; never be guilty of ostracism or alienation because education is not simply about achieving academically as you have done. Education also embraces the understanding and the acceptance of, and respect for all people. Those qualities represent the conduit to peace in our world.”
Editor’s Note: For further reading about Mary Frances Early, see the Fall 2005 issue of the Graduate School Magazine. "Mary Frances Early Speaks: On a public education and the dynamics of change," chronicles her experiences.
Q & A

Meet Bill Person

William A. Person is the interim dean of graduate studies and associate vice president for academic affairs at Mississippi State University. A member of the MSU faculty since 1977, he holds the rank of professor of curriculum and instruction. Last year, the Mississippi Board of Trustees of State Institutions of Higher Learning named him the 2006 Black Educator of the Year. He is also a “double dawg,” having earned his master’s and doctorate from the University of Georgia (MEd, ’73 and EdD, ’77). Last fall, he joined the UGA Graduate Education Advancement Board, a distinguished group of alumni, executives and leaders who promote the vision of the UGA Graduate School as a benchmark for graduate education. Person had the following exchange with Lollie Hoots, head of graduate school communications, for the Graduate School Magazine.

GS: What have been the biggest challenges in your career as both a professor and an administrator?

PERSON: As a professor, one of my biggest challenges has been utilizing instructional strategies that encourage students to focus on higher levels of learning rather than being overly concerned about receiving a certain grade on a project or in a course. Another challenge has been getting my students to focus on competing with themselves rather than competing with their classmates. Students tend to measure their achievements by how well they perform in relation to other students rather than their own progress in a course of study.

As an administrator, one of my biggest challenges has been getting people to truly subscribe to utilizing the team concept in their organizational relationships. Another challenge has been to keep people focused on the mission of the organization in their planning, development, and implementation of program activity.

GS: How do you think Graduate School has changed since you were a student? Do you think things have gotten easier for students in terms of funding and research opportunities, and in general, access to higher education?

PERSON: Today, graduate school opportunities have become much more accessible. There are many more options for financial support. Also, the option to attend graduate school has moved from being perceived primarily as a luxury to more of a necessity.
GS: What advice would you share with graduate students today in terms of succeeding in the workplace? With faculty? With administrators?

PERSON: I believe success stems from one’s ability to get along well with others and to work as a part of a team in an organization. Employing a positive work ethic also plays a significant role in one’s success in the workplace.

GS: Having been named Black Educator of the Year in Mississippi, to what do you attribute your successes and how can others, particularly those from underrepresented populations, learn from the examples you’ve set?

PERSON: I believe that whatever successes I have experienced over the years in academe have been primarily centered around three things: (1) always putting students first; (2) developing and implementing meaningful, strategic plans; and (3) having a high level of passion for my work.

GS: What is something that most people don’t know about you or would be surprised to learn?

PERSON: Surprisingly, I really enjoy helping with household activities. As a matter of fact, I am the official dishwasher in our home, and my wife loves it.

GS: What books are you reading now? PERSON: The World is Flat by Friedman and Execution: The Discipline of Getting Things Done by Bossidy and Charan.

GS: If you could wake up doing something different professionally, what would it be?

PERSON: I hope to wake up a few years from now as president of a regional university in the South.

GS: Who has most influenced your life, personally and professionally, and how?

PERSON: It is virtually impossible to answer this question as so many individuals have been very influential in my personal and professional development. I owe so much to my father and mother who provided a strong and supportive family environment with much teaching and discipline. My professional mentors include such individuals as Mr. Calvin Paschall, my elementary school principal in Kittrell, North Carolina; Dr. Doyne Smith and Dr. David Mullen, my major professor and dissertation director respectively at UGA; Dr. Howard G. Adams, CEO of HG Adams and Associates; Dr. Livingston Alexander, president of the University of Pittsburgh at Bradford; and many others.

GS: Anything else you’d like to share?

PERSON: A beautiful lady named M. Frances Person is my very best friend and confidant. She also happens to be my wife. We have five wonderful children, four sons and one daughter, who are all married. We also have five lovely grandchildren, three boys and two girls. (And a new grand-daughter, Marlee Houston Washington, born October 11, 2006.)
Brianna Peterson

On dialectic and dialect: when justice hangs on a drop of blood

AS AN EXPERT WITNESS to the courts, Brianna Peterson has seen her share of heartbreaking cases. "I may have to testify against a drunk driver who killed somebody in an accident," Peterson says. The preventable loss of life "from people just being irresponsible and driving when they are impaired" saddens her. "Nobody sets out to drive drunk and kill someone; everybody always thinks they are fine...but accidents happen. So don't put yourself in a position that you may regret later."

A young woman, 24, takes the witness stand in a humid Georgia courtroom. The accused sits steps away. Although they've never met, she's completely familiar with his blood and hair analysis and will soon give expert testimony that may sway the case. Stating her name, "Brianna Peterson," and taking the oath, she feels the jurors' staring eyes. Although she thinks she'll get used to this, she doesn't. Every finding in her testimony will almost certainly be challenged despite her graduate degree from the University of Illinois at Chicago. When she testifies, there's a rejoinder. "Oh, you're a Yankee aren't you?" The remark is apropos of nothing, and Peterson shrugs it off. Yet she leaves the stand resolving to make her qualifications overshadow her accent. She resolves to get a doctorate—case closed!

AS AN UNDERGRADUATE, Brianna Peterson discovered a clue to her own destiny within a novel. Now a doctoral candidate at the University of Georgia, she's immersed in the world of forensics and toxicology, seeking crime related clues. On television, the bodies pile up and yet stylishly dressed investigators crack the crime in 45 minutes or less. But in reality, one observer pointedly calls forensic work "often more gross than sexy."

The work is definitely cerebral and meticulous. And it requires all the training and experience Peterson has acquired since coming of age in Wisconsin. Peterson’s journey was inspired by mysteries. One day she read about an FBI profiler, a psychologist whose specialty was serial killers. The idea of using science to discern criminal behaviors jelled with the young woman who excelled in math and science.

As an adult, Peterson has worked on criminal conundrums using the lens of a microscope and her own investigative skills. She is completing doctoral work in the interdisciplinary toxicology program at UGA this May, where she studied pharmaceutical and biomedical
sciences. A new opportunity awaits her in the Pacific Northwest as a forensic toxicologist. However, she warns, real investigators rely more upon textbooks and laboratory science than their counterparts on television. (See the sidebar for more on what is called “the CSI effect”.)

“Viewing cadavers is not a typical duty of being a toxicologist,” Peterson says. “However, while I was in training with the Georgia Bureau of Investigation, I did see a few bodies undergoing autopsy. It was interesting to me from a perspective of seeing our anatomy and how amazing the human body is….but after seeing a couple of bodies…I had enough.”

PORTRAIT OF A YOUNG SCIENTIST

As a young student, Peterson enjoyed liberal arts and sciences equally. She methodically explored future options. “I liked math and had an analytical mind. I’d take the [aptitude] tests, and they’d say, ‘You have multi-interests and multitalents,’ and so this was no help.” But high school chemistry was a revelation to her.

“Once I took a chemistry class I really enjoyed it,” Peterson recalls. Meanwhile, mystery and crime writers introduced Peterson to analytical applications that left the young reader intrigued. Like Arthur Conan Doyle, father of the mystery genre, the budding scientist enjoyed the notion of applying hard science to criminal inquiry. She had found a place where her fondness for mysteries and science converged—at least in books.

Eventually Peterson read a story about the FBI profiler. She visited a career center and discovered forensic science, which required grounding in chemistry. It was an “ah-ha!” moment. Peterson’s quick to point out she discovered forensic investigation through books long before television brought it to the masses.

“I read a lot of mysteries and crime books,” she recalls, “and this was before Patricia Cornwell’s work came out. It was before the forensics boom.” Later, Peterson read Patricia Cornwell and medical anthropologist Kathy Reichs. She noted Reichs’ real-life credentials for scientifically-based sleuthing. Peterson’s own career in forensics was already formulating.

AN EVOLVING SLEUTH...

Peterson joined the Georgia Bureau of Investigation (GBI) in Savannah following forensic science graduate study in Illinois. Still in her 20s, she recalls the GBI experience fondly. “It was great. It’s not as glamorous or exciting as people think from the TV stuff. It’s still science, but you can help society as well.”

Peterson analyzed blood and urine samples for traces of drugs inside the GBI laboratory. That’s where the similarity between television programs and reality ends.

“As a toxicologist I didn’t really participate in a lot of ‘murder’ cases per se.” She did her work solely within a lab setting and did not visit crime scenes in the course of forensic analysis. “That’s a misconception that people have,” she explains.
Peterson read case reports from accidents and strove to remain impartial. She focused strictly upon the facts she found. She had some pharmacology background, but wanted more whenever defending her findings in court. “I felt I could be a better expert witness if I had more education in that area. That’s one of the reasons I went back to school.”

All the teasing she endured about a northern accent didn’t faze Peterson when it was time to choose a doctoral program. The South was familiar; she had already lived and worked in Georgia. UGA’s campus and surrounding small town contrasted favorably against the University of Illinois.

“Chicago is a major city, and the campus was located downtown, so it never felt like I was on a university campus. Here it definitely does feel that way. I looked at Athens and UGA and liked the college and small town environment,” remembers Peterson.

This spring, the independently minded scientist becomes the first PhD in her family. “Some do this because their parent’s a doctor and so they’re going to be one. It hasn’t been an easy journey, but one I prioritized myself.”

Peterson’s doctoral work concerns whether or not phospholipase A2 enzymes are part of the mechanism of oxidant-induced neural cell death. In 2005 she was nominated for a Graduate School dissertation completion award by her department head. She also won an award for her research in lipidomics. “

I do think these scholarships are very important. In some departments funding is limited, and they’re trying to graduate students in four years. In scientific programs you can’t always graduate doctoral students in four years,” says Peterson. “Will work suffer because of this?” she asks.

There are plenty of women working in her field, Peterson says. She found many counterparts at UGA. “The forensic science field is full of females,” Peterson says, pleased this trend extends throughout the sciences and pharmaceutical school.

“I definitely feel I made the right choice in this school; I felt it was very friendly here and they cared about building me as a student and preparing me to enter the career force.”

Now 32, she will resume work in a Seattle crime lab. This time when she takes the courtroom stand, she will be armed with a dangerous dossier. Peterson combines investigative experience with indisputable academic achievement at UGA.
Real Crime Investigation Is Rarely Like Network Dramas

Newsweek magazine bemoans the real repercussions of unrealistic television dramas like "CSI," or "Cold Case". In reality, toxicology reports take agonizing weeks to complete. High-tech tests, like those determining DNA, are time consuming and costly. Brianna Peterson agrees. "TV shows have caused false perceptions of the forensic field. It's good entertainment, but can have a negative effect on the forensic community.” The result is actually referenced in online encyclopedia Wikipedia, she adds, as the CSI effect, or syndrome. The CSI effect impacts classrooms and courtrooms. Students demand forensic courses that don’t necessarily pertain to the actual demands of the work itself.

The CSI effect influences judicial decisions as well.

"I’ve read of instances where juries don’t convict people because they expect to see DNA for every case, or to have all these high tech lab analyses like they see on TV. But the reality is that crime labs are under-funded. There are limited resources, so it’s not possible to analyze every last piece of evidence if it’s not necessary for a case,” Peterson says.

She gives an example: “Our procedures stated that if you found somebody to have an alcohol level above 0.08, you didn't do any further testing for drugs. It was felt that you had shown "impairment" by finding that level. My thought is, when this gets to court, would a jury or judge be less inclined to give a more lenient sentence if they were aware the suspect also had illicit drugs in their system in addition to alcohol?”

Peterson no longer watches crime dramas, saying she is completely put off by the lack of realism ("dark labs, scientists interrogating suspects, etc."). She sighs and adds, "The science is accurate I’m sure, but they show things occurring at a much faster rate and these labs are loaded with the most up to date, expensive equipment. And every case is not so glamorous or over-the-top interesting. You do lots of routine analyses, and it’s rare that you get a case that would interest someone not in your profession.”
Legacy

Shared Experiences Created a Good-Humored and Soulful Legacy at UGA

RACHELLE D. WASHINGTON (PhD ‘06) translated playful phrases and camaraderie into powerful ideas for fellow doctoral students at UGA. Washington graduated last May, having integrated graduate experiences for African-American women into both her dissertation research and UGA doctoral journey. She and other female African American graduate students created a support system they are growing and extending to other campuses. Current and emerging scholars are following suit, taking novel social initiatives to enrich their graduate school experiences. This is their story.

Rachelle D. Washington was first inspired to develop a support system in the fall of 2003, as an adult student arriving at a traditionally white university. “So many of us had been in classes [elsewhere] and had not seen another woman of color—period,” says Washington, “and to come to a [UGA] classroom and see so many faces and colors like our own, we realized we are here. We were able to come together as a circular community. From that place we started having gatherings.” It began simply, she says by assembling “a combination of sisters and classmates” whose ages ranged from late 20s to early 60s.

As members completed their doctoral degrees, Washington describes how a new organization called “SistahDoctahs” was born in 2004. Today, 50 active graduate students comprise SistahMates, and 10 members with earned doctorates form SistahDoctahs. The names denote close-knit UGA alumnae groups, gaining traction as both membership numbers and purpose swell. The co-joined memberships recently announced scholarship plans in addition to working toward formalizing the organization.

A thrust of SistahMates is called SWEET, for Sistahs Weaving Excellent Educational Tapestries. It describes a writing group initiative within SistahMates named by Maria Winfield (PhD ’07). Winfield is a doctoral candidate in the department of language and literacy education. “Another SistahDoctah on her way!” says Washington.

“Every time one of us graduates, we send out something through our list serve. There is excitement and energy,” says Washington. Theirs is an interactive network of social
support, buttressing fellow members through difficulties, sharing resources and professional tips.

“The support group is one aspect but SistahMates is two-fold,” explains Letha Mosley (PhD ’05). “We have a group for black women graduate students going towards their doctorates, and then a core group that are now degreeed ‘sister doctors.’ As SistahDoctahs within diverse venues we have the capacity to be change agents and leaders in our fields.”

Members met February 23–25 for a strategizing retreat in Clemson, South Carolina. Washington is an assistant professor at Clemson University, nurturing relationships and mentoring as part of her professional work in the Eugene T. Moore School of Education. She cultivates her brainchild and receives support from Clemson to grow the two organizations.

“Much of the university support stems from a nationwide call to recruit and retain diverse graduate students and faculty as well as to foster collaborative relationships with other institutions,” she explains.

A SWEET UNDERLYING PREMISE

The premise of the membership is simple; shared experiences and encouragement divide the stresses of often lonely academic work.

“We didn’t have an exact model for what we wanted to design” adds SWEET supporter Dionne Rosser-Mims (PhD, ’05). “We decided to make it for ourselves and others to share.” Their model, Rosser-Mims explains, arose from collective experiences and insights.

Washington gives examples. On the morning of her oral examinations a SistahMate sent an inspiring piece of Scripture. When familial loss occurred—(a lot of us lost our fathers along the way she says)— Washington sent notes to her supportive email list. “The SistahMates’ responses sustained many during these times,” she recalls.

Themes of grief, loss, burn out, financial woe, wellness, and family stress filled the e-mails that flew among the women. Dinners and nights developed them into a real community.

“We had a ‘Bite at Night’. We had a chance to talk about our academic trek as well as provide social support. Being so few there, we offered each other many layers of support,” Washington says. Joan Burke (PhD ’02) adds, “Health and wellness issues are a great concern for us as black women and even more so when we balance these issues against the isolation.”

Washington used the group experience in her scholarly work. “A part of my dissertation focused on ways agency influences our educational journey as black women prior to attending a traditionally white research institution,” she explains. She illustrated the process with personal journal entries and narratives. “I wrote a lot about black women’s schooling experiences for my dissertation.”

There were unexpected developments as the group sought deeper expression. Members
Ernise Singleton (PhD ’06) declares, “It is critical to extend this effort of sisterhood working collaboratively.”

Members give practical support. They invite each other to observe and give classroom presentations based upon respective disciplines, says Rosser-Mims. Recently, Washington asked Winfield to teach a poetry segment to Clemson undergraduates. Member Jaret Walton (PhD ’07) designed their organizational logo. Members also help one another with job searches. “It’s an incredible way to be in this time and space,” Washington marvels.

I went to a couple of SistahDoctahs and asked, ’What do you think about putting some money together?’ Although we now have our various doctorates—hence, limited resources—we wanted to somehow contribute to a legacy at UGA; we felt strongly that we would give what we could to jump start the development of a scholarship.”

A series of conference calls moved things forward. The women devised a working plan for a fellowship or scholarship and Mims met with the Graduate School’s dean, Maureen Grasso, before making their plan official. Legacy plans include a scholarship they hope to award in fall 2007.

Although Washington paid for nearly every dime of her own education, she is enthusiastic about the membership developing a scholarship for others. “Financial need ought not to be a reason someone cannot finish doctoral studies,” she says. “It’s such an unfish act,” Rosser-Mims says about the scholarship and other plans. “We can hardly wait to share this with the SistahMates at UGA!”

“Did you ever think our group would evolve into such a regal assembly of proactive ‘sistas’ [sic]?” ask Meca Williams (PhD ’06). Washington answers, resoundingly, “Yes! We’re happy we’ve come this far. So happy we’ve come together for this journey.”