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Inventing PWorlds of OSSIBILITY



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BEREA COLLEGE MAGAZINE

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A mind once stretched by a new idea never regains its original dimension.

-Oliver Wendell Holmes, Jr.

While in an elevator in Chicago recently, I realized technology had taken a leap ahead of me. The elevator's computer screen ran front page news, stock reports, and lifestyle features. A young woman on the elevator began reading about a starlet when the monitor flicked to another news item. She reached for the screen, trying to make it go backward. Then she blushed. "Oh, I guess it's not a touch screen."

I had to say it. "Well, it could be. You know, I just interviewed the man who invented the touch screen." That exchange caused me to think about how technology has revolutionized the way we interact with our world. When I was a young girl, I never thought I would be able to capture a fleeting image and hold it. To touch a phantasm would have seemed magical. Yet here we are in a world that a few forwardthinking individuals did foresee, and that our students take for granted. The evolution of technology has completely changed not only the way we do business in the world, but the way we understand the world and each other.

It was a pleasure to interview G. Samuel Hurst, the physicist who invented the touch screen, as well as other scientific revolutions (p. 22). Having had the opportunity to interview him (as well as his wife Betty) in person, over the telephone, and through email, I must say, I prefer the personal touch. His story seemed to epitomize the true breadth of the liberal arts degree; our conversation ranged from eclectic readings of Lucretius to the content of current internet websites.

Curiosity is what drives a scientist, an inventor, and eventually an entrepreneur. Their minds mull such questions as: "What would happen if...?" and "How can I do this better?" and "Who needs this as much as I do?" Not only are Berea alumni inventing worlds of technology, they are finding themselves engaged in businesses that developed from those same questions. In this issue you'll get to know alumna Katie Panciera, one of a few women interested in robots (p. 20), Ron Fouts, a hotel management graduate turned mentor and entrepreneur (p. 28), and Jason Miller, whose labor position in IS& S seeded his career in computer data management (p. 31).

Technology continues to serve the Berea College campus in many ways, through the research of psychology professors Eugene Chao and Rob Smith (p. 17), and in the classrooms of music professor Stephen Bolster (p. 14),

mathematics professor Jan Pearce (p. 18), and industrial arts professor Gary Mahoney (p. 34).

Technology moves fast these days. The College continues its pledge to educate students to function in a technological world. You can read about the effect of the laptop program in a letter to alumni and friends (p. 35). A new End Notes section concludes the magazine.

Right now, however, there is no virtual world equivalent to this one, so I'm going outside to sniff the hyacinths.

Normandi Ellis



Around Campus



David Sawyer leads workshops in problem-solving for nonprofits.

Brushy Fork Offers Its Annual Institute

The Brushy Fork Annual Institute to support community development begins September 12th at Berea College. Community members from Appalachia gather with national speakers and workshop leaders to explore the issues that face their communities.

Participants of the Institute come away with well-honed grassroots leadership skills to improve their own local communities. The three-day institute offers hands-on workshops, extensive networking opportunities, and informative plenary sessions to empower leaders in effective and ethical leadership through locally driven community development. For more information about this institute, visit: www.brushyfork.org.

Black Berea Speaks Up

During the "State of Black Berea" forum organized by the Black Cultural Center (BCC), with help from African and African American Studies, many voices examined the past, present, and future of blacks on campus and in the Berea community.

Inspired by author and radio talk show host Tavis Smiley, the forum was organized by Tashia Bradley, BCC director, and her students. Bradley explained the purpose of the forum by quoting Smiley. "If you make Black America better, you make America better." The recent event is the first of three programs designed to set and implement an agenda for change, Bradley said.

2007 Unity Banquet Showcases Service

The theme of the eleventh annual Carter G. Woodson Unity Banquet was "A Message in Movement: From the Streets to the Beats," and featured several student performances including "The Negro National Anthem." These performances not only inspired awareness of black history but shed light on contemporary issues as well. As an activist, guest speaker Amon Rashidi spoke of the nonprofit organization he founded



Olatunde Oluyitan



Geri Guy



Amanda Lucas



Christopher Perkins

called JAMS (Just Another Means of Success) which offers a lifechanging, safe haven for those trying to break out of gang life. In keeping with tradition, Carter G. Woodson



Amon Rashidi

student service awards were presented to a Berea student from each class. Olatunde Oluyitan,'07, from Xenia, Ohio; Geri Guy, '08, from Greenville, South Carolina; Amanda Lucas, '09, from Terry, Mississippi; and Christopher Perkins, '10, from Sunflower, Mississippi were recognized for outstanding leadership. Each year the Black Cultural Center hosts and houses over 125 prospective college students on campus.

Led by facilitator Felicia Mack, faculty and student panelists discussed ways to revitalize connections between the College and members of the black community. They also addressed the need for creating unified connections between African and African American students on campus. Faculty members Andrew Baskin (African and African American studies), Rodney Clark (theatre), and Dwayne Mack (history) agreed that encouraging interaction among blacks on campus is a high priority.

Mack felt that individuals must take responsibility for exploring their rich black history. "As a 38-year-old black male, it's up to me to reach out, visit black churches, and bond with community members," he said. Student panelist Alex Gibson, '08, agreed. "I



Student forum members join staff and faculty discussions.

think, generally, it always falls on the individual," he said. "It's our individual responsibility to find our own history. Don't put your education in the hands of other people."

Copies of *The Covenant* by Tavis Smiley were provided to encourage continued thought on the topics.



Berea Reached Recycling Record for 2006

Last year Berea set a record for recycling more than 300,000 pounds of waste materials. A whopping 25 percent of that came from the campus community. The

recycling program, initiated by students in 1989, has grown into a campus-wide operation staffed by a full-time recycling coordinator and 12 student workers.

To increase awareness the Residence Life Green Team is participating in the national RecycleMania competition, a program similar to Berea's own Eco-Olympics program which provides incentives for residence halls to demonstrate recycling awareness and practices. Nearly every waste item on campus can be recycled. In addition to paper, plastic, glass, and aluminum, recycling also collects used batteries, light bulbs, inkjet cartridges, and cell phones.

Speech and Debate Competitors End Season with a Flourish

The Berea College Speech and Debate team ended its competitive season on a high note in February. Berea hosted 125 participants in debate and individual events during the Kentucky Forensics Association State Championship.

In stiff competition among Western Kentucky University, University of the Cumberlands, Pikeville College, Transylvania University, Owensboro Community and Technical College, Murray State University, and Gateway Community and Technical College, Berea captured more than 13 awards, including a first in small four-year college debate sweepstakes.

"I could not be prouder of my team," said forensic coach Billy Wooten, '98. Receiving honors in debates were quarterfinalists Brendan Smith, '07, and Levi Bennett, '07; Beth Coleman, '09, third place novice speaker; and Jeremy Wells, '07, sixth place varsity speaker.

Individual awards went to Stephanie Radford, '10, for first place in dramatic interpretation and fourth place for poetry; Kate Nolan, '10, first place novice in dramatic interpretation; Jessica Fagan, '07, fifth place in poetry; Shauna Sams, '08, sixth place in programmed oral interpretation; and Matthew Frederick, '07, sixth place in prose interpretation.

In individual events, Berea placed second in the sweepstakes for their division.

Five Receive 2007 Appalachian Music Fellowships

Five scholars and teachers of Appalachian music began research this spring as part of the 2007 Appalachian Music Fellowship program at Hutchins Library.

Ethnomusicologist James Ruchala, of Pinnacle, North Carolina, transcribed North Carolina and Kentucky songs with common musical traditions. He attended local events and visited regional musicians. Suzanne Savell, of Whitesburg, Kentucky, researched the first 20 years of Berea's Celebration of Traditional Music to create a radio series. She looked at issues of gender, race, and tradition in Appalachian music.

A dance artist-in-the-schools from Louisville, Kentucky, Deborah Denenfeld, focused on the play party, or singing games, that were once played as an alternative to social dancing. Her archival research was supplemented by fieldwork and recorded interviews with dance callers.

Later this summer, Kevin Kehrberg, of Lexington, Kentucky, will research the similarities and differences in the region's gospel quartets, especially those who appeared on or played a role in John Lair's Renfro Valley Gatherin'. Susan Mills, of Boone, North Carolina, will develop Appalachian music teaching resources for school classes that meet current music education standards.

The fellowships are made possible by a grant from the Anne Ray Charitable Trust to support graduate students, faculty, public school teachers, and performers who are researching projects in traditional music at Berea.



James Ruchala, an ethnomusicologist from Brown University, discusses his research with Loyal Jones, '54, former director of the Appalachian Center.

Berea Sweeps CASE Awards

Public Relations and Development staffers carried home a total of 17 awards for outstanding achievements in print, web, and video communications from the Kentucky division of Council for the Advancement and Support of Education (CASE). Of these, Berea College received seven grand awards (the highest honor), besting more than 70 other public and private educational institutions in Kentucky.

Tim Jordan, '76 and Bridget Carroll garnered grand awards for the sesquicentennial wall calendar. Jay Buckner earned five awards, including two grand awards for the sesquicentennial web portal and overall design of Berea's website. Julie Sowell received a grand award for her feature video production showcasing Berea's performing arts. Normandi Ellis took two grand awards for magazine feature writing and production of the annual president's report. For the second year in a row, Chris Schill, '97, young alumni program coordinator, won a grand award for his humorous brochure targeting young alumni.

Student writers and editors also took top honors. Mary Rush, '07, editor of *BCnow*, accepted an excellence award on behalf of the *BCnow* reporters for Berea's daily news and event web portal. Rob Fox, '08, received an award of excellence for his feature writing in the summer 2006 magazine.

The *Berea College Magazine* garnered an award of excellence, its fourth win in four years, and Julie Sowell earned an award of excellence for her direction of "Living Upstream," a video produced by Martin Media, detailing Berea's efforts to become a more sustainable campus.

The College also received merit awards for its Great Commitments Relay (a goodwill tour of Appalachia), for the website home page, for its institutional relations project highlighting Berea's sesquicentennial, for the *Lady Mountaineers Basketball Media Guide* and for an institutional relations project "What Moves You to Give?"



Recipients of awards are: back row (left to right) Normandi Ellis, Rob Fox, '08, Tim Jordan, '76, Jay Buckner, and CASE-Ky president Andy Wilson; front row (left to right) Mary Rush, '07, Julie Sowell, and Chris Schill, '97.



Kannatassen Krishen Appavoo and Emilie Throop

Students Recognized for Scientific Research

Several Berea College students received awards for their work in the sciences at the Kentucky Academy of Science's (KAS) 2006 Undergraduate Research Competition. More than 300 research papers were presented in 18 disciplines at the KAS annual meeting held at Morehead State University.

Three of the 18 first-place winners were Berea students. Emilie Throop, '07, biology major from Sewanee, Tennessee, took first place in the ecology and environmental science discipline. During the summer, Throop conducted research on snake predation of grassland birds.

Kannatassen Krishen Appavoo, '08, took home first place in the physics and astronomy category. Appavoo, from Mauritius, an island in the Indian Ocean, is a double major in physics and mathematics, and is pursuing a minor in computer science. Appavoo's research involved studying the effect of cross-sectional geometry of a wire on its conductivity.

Samuel Adediran, '06, a midyear graduate in biology, won first place in the health sciences category for his presentation on "The Roles of Phospholipases on Reduced Phosphatidylcholine (PC) Levels after Oxygen and Glucose Deprivation in PC12 cells treated with Tricyclodecan-9-ylxanthogenate (D609)."

Another midyear graduate, Kristina Keck, '06, took third place honors for her work in chemistry.

BME Takes Top Prize at College Choir Explosion

Besting six other colleges, the Berea College Black Music Ensemble (BME) won first place at the College Choir Explosion, held at the Kentucky Center for the Arts in Louisville on March 17th. Directed by Kimberly Wilson, '97, and led by student director, Lamont Hill, '07, BME defeated choirs from University of Kentucky, University of Louisville, Lane College, University of Central Oklahoma, Wilberforce University, and Western Kentucky University to take home the \$5000 first place prize. They also tied with the University of Louisville for first place in the People's Choice category.



Lamont Hill, '07, directs the Black Music Ensemble to a double victory at the Kentucky Center.

Appalachian Studies Conference Draws Faculty, Students and Staff



Muzi Ginindza and Esther White, ASA student award winners.

Each year Berea College and the Appalachian Studies Association (ASA) present the Weatherford Awards to the authors of the most significant nonfiction and fiction works that illuminate the challenges, personalities, and unique qualities of the Appalachian South.

The Encyclopedia of Appalachia was this year's nonfiction winner. Chad Berry, director of Berea College's Appalachian Center, called it an "historic achievement for those in the

Appalachian studies community. Its comprehensiveness, its broad array of contributors, and its reach will go far in facilitating understanding about the Appalachian region." Dot Jackson, author of *Refuge*, a novel set in the Appalachian mountains and Charleston, won the fiction award.

At least 35 students, staff, and faculty attended the 30th ASA conference, including Jake Krack, '07, as featured entertainer. Esther White, '07, and Muzi Ginindza, '07, won the Carl Ross Student Paper Competition for their report, "Shifting Paradigms: The Future of Economic Development in Appalachia."

Theatre Department Mounts Spring Festival of Original Plays

The Berea College Theatre Laboratory's production of the *Festival of* Original Plays: from Page to Stage consisted of 10 student-written scenes with themes varying from personal relationships to absurdist commentary, even war and science fiction. Students enrolled in professor Shan Ayers' fall playwriting class wrote original scenes that used Berea students and theatre faculty as actors. The plays were directed by students enrolled in a principles of directing class with department chair Deborah Martin.

Berea College also participated in an international showcase of



Katie Nolan, '10, performed in "Live Bait" by Audrey Belanger, '08.

Pulitzer Prize-winning playwright Suzan-Lori Parks' cycle of 365 *Plays/365 Days*. Parks wrote a new play every day for a year. Since November of 2006, the plays have been performed on undergraduate campuses throughout the U.S. and abroad.

Ni Ji Wins Biomedical Research Award

At the November meeting of the Annual Biomedical Research Conference for Minority Students (ABRCMS) in Anaheim, California, Ni Ji, '07, garnered top honors for her research.

More than 1,100 students presented in the biomedical and

behavioral sciences. Presentations with the highest scores in each discipline and educational level received \$250 cash prizes. A total of 120 undergraduates received such awards for their outstanding research.

Ji was recognized for her research developing cell-type and tissue-specific transgenic mouse models for the study of drug addiction.

ABRCMS is an annual conference organized by the American Society for Microbiology (ASM). The conference encourages minority students to pursue advanced training in the biomedical and behavioral sciences and provides faculty mentors and advisors with resources to facilitate student success.



Ni Ji

8



Bishop Vashti Murphy McKenzie



contin Ambose. 10

Kate Larken

Dr. Hector Avalos



Dr. Ken Miller



Winona LaDuke



Shannon Leigh Woolley

Heard Around Campus

Do you have the courage to see? You must shoulder the responsibility to keep your eyes open and do something about what you see.

> -Bishop Vashti Murphy McKenzie, AME bishop convocation February 2007

Imagine some place you love. Now imagine that you've left that place, and you come back to it, and it's rubble. That's exactly the kind of experience we're looking at with mountaintop removal.

—Kate Larken, musician Songs for the Mountaintop tour February 2007

A published writer is just a type of writer. If you write, then you are a writer. —Darnell Arnoult, author of *What Travels with Us literary reading February 2007*

Energy independence is the single most important issue we face as a nation. A whole lot of our issues would go away if we were energy independent. —Patrick N. Angel, Office of Surface Mining and Reclamation coal mining information session March 2007

Any time you say there is only one true God, it creates insiders and outsiders. —Dr. Hector Avalos Iowa State University professor of religious studies "Fighting Words – The Origins of Religious Violence" March 2007

Science that includes the supernatural is no longer science. For all I know, it may be true ... but if it's not testable, it's not science.

—Dr. Ken Miller, author of *Finding Darwin's God* convocation February 2007

If you do not control your land, you do not control your destiny. —Winona LaDuke, Native American eco-feminist convocation March 2007

Why is it that we talk about the war with people who already agree with us? —Shannon Leigh Woolley, "Women Speak Iraq" Peanut Butter & Gender forum March 2007

No other group of workers, except for African Americans and Native Americans, has suffered trials and tribulations as coal miners have through the years.

> -Steve Earle, UMW legislative field director forum March 2007

How do people of privilege get back to what it means to be a follower of Jesus, who hung out with a bunch of poor peasants in first century Palestine, and really took on the powers-that-be in his own time?

> -Rick Ufford-Chase, BorderLinks director convocation March 2007





April Means Taxes – And Help Is on the Way

Constants of each new year: soon-forgotten resolutions to lose weight and eat healthier and the arrival of the W-2 in the mail. This spring Berea College students worked to make the filing process less painful for local residents.

The Berea chapter of Students in Free Enterprise (SIFE) began to work in cooperation with the AARP tax-aide program to provide free income tax preparation and counseling for those 60 and older, or those from low- to middleincome families. Spearheaded by business majors Oliver Bugariski, '07, and Kathy Pool, '07, the project assisted people in Berea and Richmond from the beginning of February to April 13. Although numbers varied, approximately 85 families came each week to the Berea or Richmond location to have their taxes prepared, said Bugariski.

Students involved in the program were required to study training materials and pass an Internal Revenue Service (IRS) exam. An income tax preparation course at Berea also offered the necessary information they needed for the IRS exam. The program allowed students to apply classroom lessons to the real world. Bugariski, a native of Macedonia, said, "The program expands my understanding and experience of the tax laws and how they affect families and communities."

Pool, from Warrenton, Missouri, credited the program with giving her a solid foundation in tax preparation. While the experience will help in her future career, she said, the service aspect of the project was the most rewarding. "It's great to see people happy that they are receiving a refund and rewarding to know that I have been a part of that."

-Beth Bissmeyer, '09



Anna Lou Ritchie of Berea confers with Kathy Pool, '07, who helped her file her taxes.

Chase Receives Student Research Award

The research paper that Lakeya Chase, '07, completed for professor Andrew Baskin's class last fall earned more than good marks. Her paper, entitled "African American Acculturation on Predominately White College Campuses and Universities: the Katrina Aftermath" won the 2007 Hornsby Essay Contest. The contest is sponsored annually by the Southern Conference on African American Studies. In addition to a



Lakeya Chase

monetary award, Chase was asked to present her results at Johnson C. Smith University in Charlotte, North Carolina, in March.

Berea College Habitat for Humanity Helps Fund Madison County Chapter



Oliver Bugariski (far right), coordinator of the campus Habitat for Humanity, shakes hands with Gina Chamberlin (far left), director of Madison County's Habitat for Humanity. Also on hand were Yvette Robinson, '09, Rachelle Lawrence, '07, and associate director and advisor Betty Hibler.

The Madison County Habitat for Humanity received \$4000 recently thanks to the Berea College Habitat for Humanity, which secured an American Express matching grant. The competitive award, sponsored by Habitat Youth Programs, was based on the Berea chapter's accomplishments.

Business administration major Oliver Bugariski, '07, coordinator of the Berea College chapter, has worked with the College chapter for four years. He says the matching grant is a major accomplishment. "We have built up our chapter over the past few years and raised our portion of the funds through several projects. For the matching funds, we had to compete with all the Habitat campus chapters throughout the nation. Berea College was among only a few selected."

The funds are helping to build two homes in Berea's Hope Estates subdivision. The Berea College Habitat for Humanity campus chapter is a program of the Center for Excellence in Learning Through Service.

Sports Update



Britin Ellard

Ellard Competes for NAIA Again

For the second year in a row Britin Ellard, '09, represented Berea College in the NAIA swimming competition. She placed 9th in the 200-yard breaststroke, 14th in the 100-yard breaststroke, and 13th in the 200-yard individual medley. She made a strong showing despite missing many preseason practices due to an injury that prevented her from any physical activity, including competitive swimming. (The Berea College women's team placed 17th overall at the national level.)

Last year she broke eight school records in the 500- and 1000-yard freestyle; the 50-yard backstroke, the 50-, 100-, and 200-yard breaststroke; and the 200- and 400-yard individual relay. She attributes her success to years of family support and swim league competition in Atlanta. Ellard hopes to continue representing Berea at the NAIA.

Basketball Players Earn Conference and National Honors

Mountaineer center Tomas Klimas, '07, from Mazeikiai, Lithuania, capped his basketball career by being named NAIA Honorable Mention All American in the Men's Division II. He finished in the top ten rebounders in the nation. At the conference level, Klimas and guard Melvin Brown, '07, from Hopkinsville, Kentucky made First Team All KIAC.

Lady Mountaineer guard Rebecca May, '07, from Waynesburg, Kentucky garnered NAIA Women's Division II Honorable Mention All American and was named a 2007 Daktronics-NAIA Division II Women's Basketball Scholar-Athlete. May and guard Candy Walls, '09, from Stanton, Kentucky made First Team All KIAC from the Lady Mountaineers.

May became Berea's all-time leading scorer (2121 points), and broke records this season for the most free throws made (86), most 3-point goals in a game (11), and for the most 3-point goals made in a four-year career (477). Point guard De-An Watkins, '07, from Athens, Alabama, joined the 500 rebound club and passed the 300 mark for assists.

After winning the KIAC tournament with a 22-7 season record, head coach Bunky Harkleroad took his Lady Mountaineers to their second NAIA-II national women's basketball tournament.

The women's first round game was broadcast live to viewers in Woods-Penniman Commons via video stream from Sioux City, Iowa. Although the team rallied in the second half, Berea lost to Bethel College of Indiana, ranked fourth in the nation.

Tom Chase, author of the twovolume *B is for Berea: The Amazing Story of Berea Basketball*, traveled to the tournament where he kept statistics and enthusiastically promoted the team and the College. When the games began, Chase noted that "the oddest match up of the day pitted the Lady Trojans of Dakota State University against the Lady Trojans of Taylor University. The Lady Trojans won. Oddly enough, this was the only upset of the day."

Chase also reported on the team's help with a basketball skills clinic for Special Olympians at the Sanford Community Center in Sioux City, an outreach program for at-risk kids. Wednesday morning, before practice, the Berea players spent about an hour with 40 middle school and high school boys and girls. As Chase said, "the Lady Mountaineers gave of themselves with enthusiasm. The hit of the day was (freshman) Annbruce Madden's clinic on the technique of dribbling three basketballs simultaneously. It's a skill that won't help you in game play, but it sure did break the ice with this group of Sioux City teenagers."



Tomas Klimas, '07, steers past the competition.

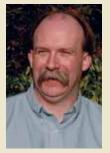


Rebecca May, '07, powers around the opposition.

News from Faculty, Staff, and Trustees

Shannon Wilson Promoted

In January 2007, Shannon Wilson became Head of Special Collections at Hutchins Library. Wilson was formerly the college archivist and has taught courses in library science. Last year the University of Kentucky published his book *Berea College: An Illustrated History*. Wilson replaces Steve Gowler, who was named General Studies Director last fall.



Shannon Wilson

Wooten Named Outstanding New Teacher

The Southern States Communication Association (SSCA) named speech and communications assistant professor Billy Wooten, '98, an outstanding new teacher at their recent 77th annual undergraduate conference in Louisville. The Dwight Freshley Outstanding New



Billy Wooten

Teacher Award recognizes new teachers for leadership, scholarship, and dedication to the field of communication and the SSCA. Wooten has been with Berea College since 2002.

Andrew Baskin Appointed to Lincoln Foundation Board

Andrew Baskin, '72, general studies associate professor, was appointed to the Lincoln Foundation Board of Trustees. The Louisville-based Foundation facilitates educational programs for academically talented youth with limited economic resources. Lincoln Institute was founded in 1904 after Kentucky's Day Law, which



targeted Berea College, prohibited Andrew Baskin interracial education. The College challenged the law, but lost in a U.S. Supreme Court ruling in 1908.

With no legal recourse, the College Board of Trustees created the Lincoln Institute in 1910 as a new school for African American students, endowing it with \$400,000. These funds were then used to purchase the campus site in Shelby County, Kentucky.

For the past several years, Baskin has worked to save the heritage of the Institute by preserving the memories of its alumni. The material he has gathered during his four years of research can be found in Berea's Special Collections at Hutchins Library.

Blythe Receives Outstanding Alumna Award

Professor Janice Blythe, associate provost for advising and academic success, received an outstanding alumna recognition from the College of Health Sciences at the University of Kentucky. She accepted the position of department chair of child and family studies at Berea in 1986 and has been honored for her excellence in teaching and academic advising.



Janice Blythe

Within the community Blythe serves in several organizations addressing food security and other needs of children and families, and is an officer in the Richmond-Madison County chapter of the NAACP. She received her doctorate from the University of Kentucky in 1987.

Bits and Bytes of Technology

Javing Mountain Sounds

In his job at Special Collections in Hutchins Library, John Bondurant preserves thousands of unique audio recordings of Appalachian music and related oral histories. The library saves antiquated recordings of music performed on campus and in communities by converting outdated reelto-reel and cassette tapes to high resolution digital files. Bondurant's customized work area features a range of technologies, including vintage, hard-to-find audio tape decks, modern computers, and a large capacity server in the College's Computer Center. The Library has more than 700 recordings available for listening in the library on CD. To listen online visit www.berea.edu/hutchinslibrary/ specialcollections/specialsound.asp.



John Bondurant, sound archivist

Blogging Berea!

The Admissions office has four student bloggers who keep online diaries as a way for prospective students to get a feel for Berea life. The four students (three female and one male) discuss such important issues as getting along with dormmates, finding the right labor position, traveling, exam week, dancing, caving, studying,



Michelle Towles, '10, student blogger

running for student government office, and stomach viruses! To read the blogs, go to www.berea.edu/prospectivestudents/blogs/ default.asp.

Selling Surplus Sunbeams

Atop a pole outside the SENS House a 1.5 kilowatt photovoltaic system tracks the sun. Two-thirds of the electricity used by the SENS House during the year is produced this way. In his home Richard Olson, director of the SENS program, uses



Richard Olson, SENS director, discusses solar panels with Laurie White, '02 (holding baby), Jennie Koch, '03, Kelly Cutchin, '03, and Deborah Payne, '02

alternative energy sources, like solar panels, and sustainable technologies, like solar hot water. Olson feels he must "lead by example." During seasons when solar panels produce more electricity than a household uses, the excess may be sold to the utility company–a process known as net metering. Thus, Berea's "green electricity" becomes accessible to the community at large.

Live Streaming Video

Berea's public relations department now uses digital technology that encodes and delivers live and archived streaming video on campus. No bigger than a cereal box, this equipment allows live video to be broadcast from any network port on campus. Thus far, the equipment has been used to stream video ranging from the smokestack demolition, to special forums and events such as the finale of the Great Commitments Relay. Public Relations is investigating the feasibility of streaming video of athletic events and commencement to off-campus audiences.

Popular Youtube Video

Berea College's sustainability efforts gained national web attention through Youtube.com, a video hosting website. Student videographers John Carter, '07, Shekina Huffman, '09, and Justin Lee, '07, entered the National Wildlife Federation (NWF) Chill Out: Campus Solutions to Global Warming video contest. The competition drew entries from over 22 colleges and universities. Berea College and the Environment Factory received high marks from viewers and won over the NWF sponsors who included it in a nationwide multimedia broadcast in April. You may still view the entertaining and informative video at

http://www.youtube.com/groups_videos? name= nwfchillout.





By Beth Bissmeyer, '09

unched over a laptop for seven hours a day sounds characteristic of a computer technician, not a choir director. But last March, Dr. Stephen Bolster, professor of music and director of the Berea College Concert Choir and Chamber Singers, did just that in the small city of Groningen in the Netherlands as part of his spring and summer sabbatical. Traveling as far as the Netherlands,

England, New York, and Texas, Bolster dedicated his sabbatical to the study and mastery of VoceVista, a new computer technology for vocal students and teachers.

Bolster stumbled upon VoceVista, meaning "view of the voice," while attending the World Conference on the Physiology and Acoustics of the Singing Voice in Denver during 2004. There he met Donald Miller, vocal scientist and creator of the VoceVista program. "I had previously thought about going to Cambridge, England and being a vocal scholar for

a whole semester," says Bolster. But his interests in the acoustical physics of vocal sound led him to choose VoceVista as the focus of his sabbatical. "It just fell into place really well."

Conferences and study sessions filled Bolster's schedule before he went to the Netherlands for intense one-on-one VoceVista study with Miller, a free benefit he received upon purchase of the program. "You could buy the program and stay with him to learn for free. All you had to do was pay to get yourself there," says Bolster. Beginning at 9 a.m., Bolster and Miller worked on VoceVista throughout the day, with breaks for meals and walks through the town. "We would have a big European dinner with his wife and then hit the computers again for another hour and a half, calling it quits around 9 p.m.," says Bolster. "He puts you on the spot, but it's very relaxed, calm, and collegial. It was just such a terrific experience." Managing to make it to England, Bolster observed rehearsals and performances and worked with the conductors of the St. John's and Clare College choirs in Cambridge. With a long-time graduate school friend, Bolster studied the British choral tradition, the current state of choral music in England, and its pedagogy. While in England, Bolster ventured to York for the year's International

> Physiology and Acoustics of Singing conference. "Much of the research had been conducted using VoceVista," he says.

Bolster now uses VoceVista as a visual and aural aide for Berea's student singers. The program allows students to record themselves singing and acoustically analyzes their voices in real time. Using various waves, lines, and colors, the program shows how much acoustic energy is in their voices, the set of harmonics that they have sung, and their decibel levels, among many

other features. Because of its many tools, VoceVista can help students work on a variety of vocal concerns, including the evenness of the vibrato, properly beginning and ending a tone, and maintaining proper pitch.

"I use the program with virtually all of my vocal students, and they all have it installed on their laptops," says Bolster. "I use it about 10-15 percent of the time, as necessary." When, during a voice lesson, a student does something compelling or interesting with her voice, Bolster asks her



Students practice singing choral hymns with Stephen Bolster during a short term course.

Bolster also spent several days in New York, visiting SUNY-Fredonia and Houghton College. Wanting to see the program in practice with students, he observed voice lessons by professors whom he had met previously at a VoceVista conference. "Both professors demonstrated different things in their lessons, and I've tried to incorporate some of these good things into my own teachings," says Bolster. to sing into a computer microphone so she can save it and look at it on VoceVista. "I can send the file and tell the student what she should model her voice after," says Bolster. Later, when students practice on their own, they can open VoceVista on their computers, sing into it, and compare their voices to what they sang earlier. Using the comparison between the two recordings' lines, waves, and peaks, the students can continue singing, recording, and comparing until they match the earlier model singing.

This aide is a great improvement on the old model of vocal teaching, says Bolster. "With the old model, teachers gave a lot of feedback, and the students had to try to remember what

they did right days later. That is very hard to do." VoceVista allows students to have confirmation of what they're doing. "It takes some of the hocus pocus out of singing by making it more concrete," says Bolster. "Even if they don't understand all the physics of their singing, they can still see and hear it on the program."

Jessica Slaton, '07, a vocal music education major from Goodlettsville, Tennessee, is one of Bolster's vocal students who has benefited from using VoceVista. "The program makes it so easy for me to track my progress and have actual hard evidence that what I'm doing in my voice lessons is really carrying over into my practice time," says Slaton. "I can memorize how it felt to sing something correctly by checking the screen and eventually it will be a part of my muscle memory, and I will become a much better vocalist."

Bolster can't stop raving about the program. "It's become a confidence builder for my students and for me. It's given me more confidence in my own ears," says Bolster. "Before this technology, I had to rely on what I heard and hope like crazy that I was hearing it correctly. Now, I can see if what I hear is really happening.

"It's not meant to substitute for a live human being, but it has become a very useful tool."

> Not only can students use the program to compare their

different recordings, they can also use VoceVista to compare themselves to any digital vocal music file, including professionally recorded works. Slaton, normally an alto, had been working on singing a high A in the soprano range with Bolster. "He was so impressed with my harmonics and fundamentals that he called me over to the computer to record it and see," says Slaton. He then opened a file of famed opera singer, Maria Callas, singing a high A to compare the two recordings. "My high A matched almost perfectly with the high A of Maria Callas. I was amazed to see that I had the potential that this great opera singer possessed," says Slaton. "It gave me new faith that I can really be a great vocalist if I keep practicing and put my all into my art."

Such growth and enthusiasm from students highlights the value of using VoceVista and encourages those using the program to spread the word among their colleagues. In addition to teaching others on campus, Bolster has been teaching VoceVista sessions at various regional and state colleges. This past summer, he presented a VoceVista workshop to the Kentucky chapter of the American Choral Directors Association. He has taught two sessions for graduate students in vocal pedagogy at the University of Kentucky. Later this year he will teach VoceVista at Eastern Kentucky University and Morehead State University. Bolster hopes others will begin using the program.

"Donald (Miller) doesn't teach the program for the money," says Bolster. "He does it so that others in our profession can benefit." Miller teaches people to use the program, knowing that those people will go out and teach the program, and thus, develop a network and build interest. Like Miller, Bolster is a believer in VoceVista and wants others to use it and benefit from it. "We go out and spread the gospel of VoceVista in the hopes that more and more people will get interested and use the program," says Bolster. "It's great to share with others. I love to do it."

As Jessica Slaton sings, the VoceVista program records her voice for later replay and analysis.

MATH ANXIETY-It's All in Your Head



By Crystal Ford, '06

hen you look at numbers, do you get butterflies in your stomach? During calculus exams, do your hands get clammy? Do you carry aspirin to algebra class to ease your tension headache? If so, you are not alone. Many of us panic when presented with mathematical computations. Wouldn't it be great to know the how and why behind our fear of mathematics?

Psychology professor Eugene Chao has always been fascinated by math anxiety. "It is a real problem that needs to be tackled," he says.

Last summer he and another psychology professor, Rob Smith, decided to explore how and why we experience stomach butterflies, cold sweats, and other physical and psychological symptoms caused by the terror of numbers. Studying math anxiety, Smith says, is not that different from studying the reactions of arachnophobes to the appearance of spiders. The task required placing math compilations in front of the research subjects to study their reactions.

First, the professors selected four Berea College students to assist as researchers. "We wanted to involve students as researchers, not simply as technicians," says Chao. Four students helped the professors design the experiment, including Megan Reid, '08, a biology major. "Designing the experiment and finding out how everything worked – including the computer program we are working with – was an amazing learning experience," Reid says.

Next, the team enlisted student volunteers to participate as research subjects. Through the use of technology, the researchers began a project to map the ways in which the brain responds to the stimulus of mathematical equations, reaction time, and general numbers.

After completing several questionnaires and consent forms, the students were fitted with a swim cap-like contraption. "The cap was like a big antenna," says Chao. "Clear, goopy-like sodium gel was injected into tiny electrode buttons on the cap. This procedure was completely non-invasive to the participants and aided in measuring their brain waves."

During the test, a student sat in a dimly lit room, facing a black computer screen. When a prompt appeared in white type, the student was asked to respond to those numbers. Mathematical equations, such as 2 + 3 = 5 or 10/2 = 4, were presented on the computer screen. Using a hand-held device similar to a game control, the individual had to decide if the equation was correct. A right button click indicated

'true;' a left button click indicated 'false.' Any butterflies, blinks, or clamminess that may have occurred, was measured by the brain waves recorded from the antennaelike cap.

In the control experiment participants viewed mathematical equations. Rather than computing them, they looked only for the number zero. "Everybody went through the same exact experiment and study," says Smith. "Students came in only one time for testing, and their session with us lasted on average about an hour and a half to two hours."

Initial analysis of the data looked promising. "Something interesting appears to happen in the brain waves of students who are math-anxious that differs from those of non-math-anxious students," Smith says.

This summer the professors hope to continue their research. "Twenty years down the road," Smith muses, "perhaps we will have started a new line of research on the study of how the brain receives and processes mathematical equations."

Grants from the Department of Education for Technology helped to fund the research and to purchase research equipment that continues to be used in the neuroscience laboratory.

INSIDE THE ALICE WONDERLAND

By Maggie Greene, '09



Computer storytelling class appealed to a broad spectrum of liberal arts students, such as art major Dru Russell, '08, English major William Freeman, '08, and mathematics major Ross Adams, '08.

The first story that mathematics and computer science professor Jan Pearce tells her 40 students in "Computer Animation and Storytelling" class is about a little mouse.

Hickory Dickory Dock, the mouse ran up the clock. The clock struck one; the mouse flew down.

Like the white rabbit that Alice knows so well, the mouse is a creature full of possibilities. Pearce's flying mouse story derives from the professor's passion for technology and her desire to share it with a diverse audience. During January short term, she gave her mouse wings and opened a window so that her students could follow after it.

As a woman in the primarily male-dominated field of computer science, Pearce wants to attract those with limited or no previous experience. She confesses, that "the course was more popular than I ever imagined. So many students enrolled that every chair in the room was full, and I still had to turn students away."

Those lucky enough to have landed seats spent January working with the latest innovation in computer animation software called "Alice." The software, inspired by the character in *Alice in Wonderland*, allows students to create individual 'Wonderlands' in which they may tell their own stories.

"We are all storytellers," Pearce says. "Ultimately, stories give us a way to reflect on the human condition." By that she means our daily relationships with people and our surrounding environment. She emphasizes that the medium of the story greatly affects its audience. With computer animation, the animator (or storyteller) may manipulate objects and images in ways that engage an audience differently than would a novel or short story. "Each technological advance creates a new storytelling medium, changing the way

By Amanda Hensley, '10 A Short Term Look at Technology Then and Now

Berea College embraces timeless traditions as well as rapidly evolving ideas. During January short term, students had a month to focus on a single class. Some chose courses offering traditional fare; others gathered to explore technological advances.

Industrial arts professor Brad Christensen taught a residential construction course where students learned the basics of how to plan, build, finance, maintain, and remodel a house. "A lot of the technology that is used in construction is actually centuries old," says Christensen. "The way we build houses today is not that different from the way houses were built in 1200 and 1400. Some of the materials have changed, and the energy has changed, but they're basically the same."

"I've always dreamed of building my own home," says Ginny Cook, '09. A Kentuckian from Owen County, she plans to teach secondary math after she graduates. In designing her house, Cook relied heavily on her math skills. "I can take those house plans and do small scale projects with my future students. It will give them a very good realworld application and allow them to see a need for math, something many students struggle with." While the way we build houses remains essentially the same, the technology used in the sciences transmutes at the speed of light. During a regular semester, assistant professor Mark Cunningham teaches organic chemistry. His short term course offered an introduction to forensic science, which he hoped would appeal to those inside and outside the sciences. "This science class connects with those in law enforcement and the criminal justice system. It shows how these entities work as a team to solve crimes and bring criminals to justice," he says. stories are told, as well as the way they are heard," she says.

As computer animation grows more popular, people who never knew they were storytellers are discovering their stories and new audiences, who may not necessarily be traditional readers. The readers of interactive stories are welcomed to participate in the story. Thus, readers have the chance to develop and imagine worlds in which the stories occur, while animation techniques allow storytellers to make realities of their words.

Sometimes one feels frustrated by the writing process, but animation alleviates this stress, says English major Robin Franklin, '09. "Whenever I write, it seems that I can never find the right words or description for what is in my head. Although the same problems can happen with animation, using [Alice] takes some of the pressure off me while I describe a scene or what characters are doing."

Stanka Sojakova, '09, found that focusing on animation, rather than on plot, offered her more storytelling freedom with less pressure. On the other hand, Stanka found the programming process required to move a three-dimensional object in real time to be 'tiresome.'

Yet Robin Franklin felt that the outcome was worth the effort. "Anything you want to happen can happen in your story. It is very thrilling to see your story come alive on the screen."

Economics major Kwadwo (Kojo) Juantuah, '09, chose the course because he wanted to understand how computers work. He hopes to turn those skills into "real world" entrepreneurship when he returns to Ghana.

Computer programming taught him a valuable lesson that he will remember when facing other tough issues: Take things one step at a time. After a few short weeks in class, he began to reflect on his immediate world. Instead of hurrying to class like the masses, he began to take time to consider the intricate processes involved in moving from place to place.



Professor Jan Pearce assists Stephanie Corry, '08, with her animation programming.

"I appreciate walking. Like everything in life, it is one step at a time," Kojo says. "As storytellers, we know what happens, but in front of the screen we discover how it's done." Computers, he says, opened up an exciting world of possibilities and "a new way of thinking."

Technology and forensics have coevolved. Better technology in the forensic sciences, he says, gives rise to more efficient and faster solutions to criminal cases, making trials and convictions more reliable. But the benefits extend beyond even the criminal justice system.

Faustino Hernandez, '08, a business major from Oaxaca, Mexico, registered for the class because he needed a break from his regular coursework. "I figured something outside my major would do me good," says Hernandez. "This class allowed me to think quicker, work closely with people, and be more analytical. All these skills will come in handy in my field because a good business leader has to be able to handle all these successfully."



Faustino Hernandez, '08, leads his co-investigators through a practice crime scene.



Desiree Bernardoni, '10, and Al Onyekaba, '08, participate in a home construction project.

Katie Panciera, '05, credits her math professor, Dr. Jan Pearce, (left) with encouraging her to pursue a graduate degree in computer science.

Rachel Wetmore, '09

By Leslie Ferguson-Oles, '05

hen we think of robots, many of us still picture R2-D2 from *Star Wars* or Rosie, *The Jetsons*' housekeeper, but Berea graduate Katie Panciera, '05, wants you to know that robots already exist all around us. A graduate student in her second year of computer science study at the University of Minnesota (UMN) Twin Cities, Katie is quick to name a few common uses of robots, including the new Roomba[™] vacuum cleaners, whose pod-like shape utilizes a robotic sensory system to ensure that the vacuum covers an entire room, especially dirtier spots, while preventing it from falling down the stairs.

Rosie, take a back seat! In addition, robotic surgery aids, whose crane-like arms are operated by a surgeon, can make certain surgeries more precise and less invasive, reducing a patient's scarring and recovery time. Robots even help amputee veterans return to mobility. Many prosthetic limbs now include robotic systems, such as a robotic knee that responds to movement and makes activities like walking or running more natural.

Katie's research on the interface between humans and robots is being funded by a prestigious National Science Foundation graduate research fellowship. Her initial graduate research began with robots and autistic children. Lately she expanded that research to explore how robots and children interact in a classroom setting. She uses Sony Aibos[™] (small dog-like robots) in a constructive way so that the robots are more than "glorified toys."

By teaching youngsters how to use robots, she believes they learn such skills as problem-solving and logic. In turn, she learns more about how humans and robots interact. Besides watching how excited children are about robots, Katie finds it interesting to see how responsible the students feel whenever they are in charge of the robot. "Most students using the Sony Aibos are exceedingly careful, not wanting to hurt the robot," she says. The children express amazement and awe at the Aibos' independence and skill set. Berea education, where she was one of the first three independent computer science majors. (She was also a double major in mathematics.) She originally thought that she would major in English and become a journalist. Instead, as a senior in high school and at the insistence of her father, Dr. Mike Panciera, Katie took a course at the College in higher mathematics. She fell "under the calculus spell of professor Jan Pearce," she confides.

"I loved it. It was fun! It was exciting! It was all about solving problems," Katie remembers with excitement. Before she knew it, she had graduated high school and enrolled in three calculus classes, as well as an introduction to computer science at Berea. She soon became a teaching assistant for the mathematics department under Pearce.

During her sophomore year, Katie participated in a summer research project,

only did Katie understand the material well and deeply, but she was articulate, and a delight to be around."

Working as Pearce's teaching assistant, Katie says, was vital to the success that she is having in graduate school, where she oversees classes of up to 70 students. Being a teaching assistant during her undergraduate years was "not as much about my teaching experience as it was about watching good teachers in action," she says. She hopes to follow in the footsteps of these professors and become a computer science professor after completing her doctorate.

In the meantime, Katie has an array of activities to keep her busy. Between taking classes and teaching classes, working on her research, and singing in a local choir, she still takes time to educate the public on what robots are all about.

"The definition of a robot varies depending on who you are and what

By introducing robots into the classroom, Katie creates a personal connection to the field of computer science. "A lot of kids see computers as a tool," she says, "but not as a career choice." Through her work in classrooms and in summer day camps, she hopes to attract more females and minorities to the field, an obvious need that Katie recognized. "We counted a couple of times," she says, "and I think that I am one of about sixty women in my graduate program of more than 400 students."

The large school experience in the Twin Cities is much different from Katie's which became pivotal in directing her future work with robots. "I really enjoyed the physical testing situation that the robots provided," says Katie. The research team focused on developing ways for a group of robots to effectively scan a given area without the robots overlapping each other's work. Termed 'robot dispersion,' these groups of robots could be used to scan areas deemed too dangerous for humans to enter, such as a potential bomb site.

Pearce, who led the study, recalls seeing Katie's talent that summer, and notes that "her approach (with the robots) was extremely creative and effective. Not context you're in," explains Katie. She thinks, though, that the school children she worked with during UMN's robotics summer day camp came up with an interesting definition. According to these students, Katie says, "You have to be able to turn it on and off. It has to have a specific task to do, and it has to be operated by a circuit board.

"When I talk to people about what I do, a lot of them say, 'Oh my goodness, you're creating robots to take over the world," Katie muses. She argues though, that robots, "just aren't that smart."

Sam Hurst Touches

on a Few Great Ideas

By Normandi Ellis

he father of one-atom physics and the inventor of today's omnipresent touch screen technology, G. Samuel Hurst, '47, let curiosity lead him. In the process, he created a technological revolution that has changed the way we interact with our world.

In southeast Kentucky, between the Cumberland and Pine Mountain ranges, nine miles east of Pineville where Yellow Creek runs into the Cumberland River sits Ponza, a little community beside the CSX railroad. There in 1940 lived a boy with bright blue eyes and a mind full of questions. He was the kind of boy who wanted to know how things work – the kind of boy who sought answers. With his cousin Earl Jones, Sam 'invented' the submarine for exploring ocean depths. Imagination and fantasy were all they had for amusement in those days. And because he was curious, a whole world awaited his discovery.

Growing up in the heart of Appalachia, G. Samuel Hurst, '47, never lacked for learning experiences. In fact, his love of science began right there in Bell County. Fascinated by the notion of radio waves, Hurst and a friend built a radio transmitter. He shocked his mother when he transmitted his own voice to her Sears Silvertone radio. From the manager of the train yard he learned how the pumping station worked and how to "stoke the furnace, boil that water, and make the pumps work."

All of his later accomplishments, including his more than 30 patents in

the fields of radiation detectors, touch screens, and resonance ionization spectroscopy (RIS), began in Ponza. It was a matter of developing his innate curiosity. Some evenings, Sam says, he waded across the Cumberland River to sit on the porch of his high school math teacher, Charlie Taylor. The two spent evenings talking about the stars. "He saw something in me that I didn't see in myself," Sam muses.

Sam speaks with a measured mountain drawl punctuated by an elfish grin. As his wife, Betty Partin Hurst, '50, listens to Sam's story, she says sensibly, "There was a road there you could have walked on, Sam, and crossed at the bridge. You didn't have to wade through that river."

"Well," he replies without missing a beat. "That was too far. His house was just across the river from mine."

That's how it is when you crave an answer.

Berea and Dr. Waldemar Noll

At age fifteen Sam left Bell County to attend Berea College where soon enough he met Betty, also from Bell County. "I'd seen her in the ice cream shop in Pineville," he says, "but I had never had the courage to talk with her." "He kept trying to make an impression on me," Betty explains. "We weren't supposed to have music in the dorm, but Sam made me a radio."

"A battery operated radio," Sam adds, "to get her attention."

The radio became the conduit to his two loves—Betty and science, but it wasn't until he came to Berea that he learned more about radio's electromagnetic waves from physics professor Waldemar Noll. Professor Noll encouraged his students' curiosity. He and his students invited the campus to science open houses. A welcome sign with visual and sound effects operated by an invisible light beam greeted visitors entering the building.

"We made Dutch tear drops. Do you know what they are?" Sam asks.

I shake my head 'no' and Sam explains enthusiastically.

"If you melt glass, and let drops of it fall into cold water to solidify quickly, you will get a spherical thing with a tail on it. If you beat the spherical part with a hammer, it won't break; but to gently tap the tail would shatter the whole thing." He patiently explains the concept of crystalline structure and how the molecules are packed. The discussion moves into Dr. Noll's x-ray machine. "Students loved looking inside things—looking at their bones and so forth." Now, Sam moves into a discussion of radiation exposure, its effects on humans, and the facets that were not known when he was a student in the years following the end of World War II.

Sam Hurst also has a passion for looking into things deeply. Dr. Waldemar Noll taught him that "Everything is a hypothesis. Keep your mind open. Dr. Noll was one of the wisest people I've ever known and he stimulated deeper thinking."

Inside an Inquisitive Mind

After receiving his bachelor's degree in physics, Sam earned his master's in 1948 at the University of Kentucky (UK) and his doctorate from the University of Tennessee in 1959. Innate curiosity propels him. "In my mind, I am always trying to invent something," he says. "I try to find a solution to basic problems of physics. I like a variety of things, but, fundamentally, it is curiosity."

Not only has he developed touch screen technologies, Sam Hurst has been honored for advances in neutron and gamma ray dosimetry, the transport of electricity through gases, and the development of laser-based one-atom detection. For 33 years he worked primarily at Oak Ridge National Laboratory (ORNL). Being part of a collaborative research team exhilarates him. He recalls with pleasure his years teaching at UK, working at ORNL, and then founding several start-up technology businesses (including Elographics, Consultec Scientific. Atom Sciences. Pellissippi International, and a current business, TopoTec). He quickly names the many talented individuals, such as Bruce Warmack, Rufus Ritchie, and professor Don Bouldin who helped to develop these ideas.

"Whatever praise I have received," he says, "relies upon the good work of my colleagues."

Among them he cites theoretical physicist Marvin Payne, '58. He and Sam had similar ideas about both atomic physics and the use of lasers in RIS. "Marvin could calculate a problem entirely in his mind," Sam muses. "We rolled out ideas, and Marvin could evaluate them in real time; thus, we made rapid progress." Other Berea alumni come to mind, including two student researchers – Robert Compton, '60, and Jim Parks, '61. When Hurst accepted a research teaching post at UK in Lexington, Kentucky, Parks went with his mentor to work on his doctorate.

The World at One's Fingertips

To study atomic physics the research team used an overworked Van de Graff accelerator that was only available at night. Tedious analyses slowed their research. Sam thought of a way to solve that problem. He, Parks, and Thurman Stewart, another doctoral student, used electrically conductive paper to read a pair of x- and y- coordinates. That idea led to



Sam Hurst, as a boy in Bell County, Kentucky

the first touch screen for a computer. With this prototype, his students could compute in a few hours what otherwise had taken days to accomplish. And they did not know that they had created a new industry.

UK applied for the patent on their behalf, but scientific applications for their brainchild proved "a dismal failure," Sam recalls. No market yet existed for such a product, but the idea did not go away. "I thought it might be useful for other things."

Sam returned to ORNL in 1970. Privately he gathered nine friends – experts in their fields. They began an after-hours basement business called Elographics. "We got the idea that if we could put a touch screen on a computer monitor one could interact with a computer just by touch." The touch screen has now put computer technology into the hands of consumers in shopping malls, in grocery stores, and in banks. The idea of it excited him, not only for its technological evolutions, but for its sociological implications. One need not be technologically savvy to access necessary information.

"You could just look at a screen, poke your finger, and get an answer," Sam explains. "Anybody can poke a finger!"

An important trick was to create a conducting cover sheet that could contact a transparent substrate along the x- and yaxes. The question was what to place between the screen and the conducting sheet to prevent accidental contacts. Sam found his answer in the intuition of his most long-standing collaborator—his wife, Betty.

"She came up with the idea of a bridal veil," Sam says.

While Betty has little background in physics, she listens to her husband think aloud. "He talks to me as if I understand what he means. Every day he talks to me about this or that."

Sam nods. "She comes up with things that I should have thought of already," he says. "Her name should have been on that patent..."

"Well sure, you say that now!" Betty exclaims and laughs.

Elographics eventually sold to "good folks in California" and became EloTouch, Systems, a world leader in touch screen technology. Last October the company celebrated its 35th anniversary, coincidental with Sam Hurst's 79th birthday. Running a business, however, is not his motivation. For him, "Science is more interesting than technology. All of technology comes out of science, and I wanted to stick with science."

The World in a Grain of Sand

After Elographics began, Sam kept working in the laboratory at ORNL. "I just love research and I was trying to find something new."

He had already worked with another collaborator, Rufus Ritchie, a Kentucky



President Jimmy Carter greets Dr. G. Samuel Hurst during a tour of Oak Ridge National Labs in 1978.

mountain boy like himself. Soon after the end of the Second World War, the two studied the effects of radiation on the environment and human health. They became experts at determining the dose of radiation exposure received by people at such sites as Hiroshima and Nagasaki, as well as those who were present during accidental leaks in research facilities such as Oak Ridge, in Yugoslavia, and elsewhere.

By 1978 Sam wanted to find a way to detect atoms. Geiger counters, for example, only count decayed radioactive uranium. The Oak Ridge group searched for a way to detect atoms without relying on their being radioactive. He and Marvin Payne found a way to tune a laser light to detect individual atoms in gaseous phases. With RIS, tuning a laser light resembles tuning a radio to a particular frequency – a resonance must be established between emitter and receiver to remove an electron in a multi-step process from a selected type of atom.

Out of billions and billions of atoms, the team could find one particular kind of atom. Lasers were the key to counting atoms, and elements could be identified by the color, or the wavelength of the light they absorb. "Personally," Sam says, "solving that problem, and then using the RIS process to solve a long-term physics problem addressed by the famous Danish physicist Niels Bohr gave me the most satisfaction of any of my work as a physicist."

His work with Atom Sciences, the company he co-founded in 1978, created the opportunity literally to see the world in a grain of sand. As a matter of fact, a grain of sand holds more than a mixture of the silicon and oxygen that make up quartz. Inside a grain of sand a scientist may find at least one atom from nearly the entire table of elements. Why would a person want to count atoms?"

The reasons are as fascinating as they are diverse. Among the other possibilities, one-atom physics will allow us to:

- find impurities in smaller and smaller electronic chips so that future problems may be circumvented
- count a few noble gas atoms in physics research, such as detecting neutrinos from the sun
- draw less blood to sample when preparing for neonatal surgery
- identify traces of food allergens, such as peanuts, in products
- identify trace amounts of precious metal, minerals, or elements in streams of water
- study issues related to global warming using core samples of polar ice
- detect environmental pollutants caused by radiation, global warming,

or other effects of chemical or human waste

- find trace elements in the body, in the environment, in space, and on other planets
- determine the age of the planets, stars, and galaxies to find the origin of their matter.

If a scientist could identify a substance down to a single atom, if he could verify that it does, or does not, contain a particular element, then the chemical composition of everything could be entirely known. Truly, one could peer beyond the surface of things.

A World of Ideas and Imagining

Sitting in his sun room in Knoxville, surrounded by green plants and bathed in light, Sam places on the coffee table between us a much read copy of On the Nature of Things by Lucretius. This didactic poem, written in 50 BC to develop the philosophy of Democritus (460-370 BC), suggests that the universe is composed entirely of atmos (a Greek word for atoms) dancing in an infinite void. Democritus theorized about the movement and varieties of atoms and atomic weights, but, Sam says, "It was all speculation. The Greeks got their idea of atomism from ordinary observations. The Greeks were not known to be experimentalists - but they were astute observers of nature.

"After we began counting atoms," Sam says, "I went through and compiled 100 quotations from Lucretius that applied more or less to modern atomic concepts. I was shocked to find that many references."

I am intrigued that Sam marked them all.

"What so amazes me," he continues, "is that centuries later many of those vague ideas were suggestive of modern concepts."

Our talk begins bouncing faster than a laser light from science to religion, then back again. In the world of Democritus, there were either atoms or there was the void. There was no in-between. Thus, came a conflict with religious ideas. Sam and I talk about free will and determinism, and whether Lucretius or Democritus gave that any thought. Lucretius, it seems, provides us with a notion that atoms might 'swerve' a bit in order to avoid colliding. Sam finds the passage in Lucretius about the atom's weight determining its path as it falls. "That swerving," Sam explains, "relates to the uncertainty principle in quantum mechanics."

The talk returns to science, but suddenly swerves from Einstein to Spinoza. I'm beginning to feel a bit like an electron swerving myself, frantically trying to cling to a premeditated orbit around a nucleus.

"Spinoza was a determinist," Sam explains. "Einstein accepted this thought. He didn't believe anything about chance phenomena or quantum mechanics. Even though he developed a lot of what became quantum mechanics, Einstein didn't



Samuel Hurst and Betty Partin Hurst in their Knoxville home.

believe in it. To me, it's this aspect of chance that gives us free will." Sam pauses to let that sink in. "If everything were predetermined, we'd have no influence on it; if everything were totally probabilistic, then we wouldn't have any influence on it either. But if it's a mix of the two – chance and determinism – then you can influence one over the other."

I nod and stare at Sam's wall where a poster of Einstein superimposed on a geometric cube hangs. I remember a quote by Einstein in which he says, "Science without religion is lame; religion without science is blind."

Before I know it we are talking about teleporting information in real time – faster than the speed of light. Sam asks me to imagine scenarios in which it might be useful to teleport information to Mars, or to the other side of the world. How far away are we from that type of technology? Would you be surprised to find that Sam is writing a paper on the subject?

"Just Google the words 'quantum teleportation' on the web. You'd be surprised what you'll find. Physicists can already teleport atoms." He gives that twinkling-eyed smile of his.

Here, I thought I had come from Berea to Knoxville to interview the man who invented touch screen technology. Somehow, instead I find myself sitting on the edge of his sofa on the brink of what can only be described as a Star Trek moment. This mild-mannered technowizard has sent me scrambling to look up atomic poems by classical writers then refers me to internet articles on quantum mechanics and the current work of teleportation. I almost feel tiny atoms inside me accelerating and whirring at a much faster pace. I feel practically giddy. I wonder if these are the types of things that wide-eyed boy and his teacher in Ponza might have talked about while sitting on the porch and counting stars.

Back in the Moment

Sam has never really retired. "It's almost a shame to sit around," he says, "because now I have all the time to work on these ideas."

Betty nods in agreement. "He has all these new patents he's working on. He is still having fun."

The wide swath of his curiosity extends in many directions. He meets regularly with a local group to discuss science and religion. He and longtime collaborator, Rufus Ritchie, among others, continue creating advanced touch sensor technology with their company, TopoTec.

Increasingly, the market demands more user friendly equipment. Multiple touch screen technology could fill some of that need. "At present we live in an awkward age of technology." From his chair in the sun room, Sam gestures toward his cable television, digital video recorder, his CD and stereo speakers, the desk model computer screen, and tower.

"In a few years from now, it all will be user friendly," he assures me, "so you won't have to program them all separately. You



Although he has retired, Dr. Samuel Hurst stays in touch with colleagues and industry developments via his home computer.

might not have to leave your high definition television to be able to turn on your microwave and start dinner from your easy chair."

As technology moves apace, many high-tech companies compete for a market share. Apple and TopoTec came out with their patent application for their multiple touch technology on the same day; however, TopoTec's patent disclosure beat Apple's by a month. "It's not uncommon when you get a new idea for someone else to get the same idea." Once scientists set the stage through basic work, the timing for invention and commercial application is right.

Technological advances occur in three steps: discovery, invention, and application.

"Most scientists stop at the first step. They forget about inventing in some cases because of their excitement about pure research." Sam says. If one follows all three steps, one moves out beyond science and into entrepreneurship.

Sam envisions a market in which advanced touch screen technology can bring jobs and education to Appalachia. For an out-of-work coal miner or a student in an isolated region, the world could exist at their fingertips. "I can imagine a hundred applications," he says. "Using touch screen, you could get to the internet more quickly and with less confusion. You'd have to learn less about the computer and have more time to learn about the subject you're interested in." Before leaving, I leaf through a few photographs that document Sam Hurst's multifaceted life. I am drawn to the image of that young boy with a safety pin to hold up his galluses. His pale blue eyes stare straight into the camera. Did that boy ever imagine that he'd shake hands with a president and try to explain to him solar neutrinos? Or was that boy simply looking, as he always has, with curiosity about how things work.

What drives him to work on a problem when others might have quit, I ask. Sam has a ready answer. "The biggest thrill is to discover something new and to realize at that moment you're the only one who knows."

28

Ron Fouts, '72, entrepreneur, teacher, mentor

Inventing a JOB You LOVE

By Jonathan Fleming, '07, and Miranda Hileman, '09

Ver a steaming café mocha or creamy hot chocolate, Berea students and townsfolk often congregate in one of campus's favorite private businesses. Berea Coffee & Tea (BC&T) is conveniently near campus on the College Square, only a few steps from historic Boone Tavern Hotel and the College Bookstore. Inside on rainy days, when grey clouds loom overhead and puddles stretch underfoot, or on the outdoor patio on warm sunny days, BC&T offers a perfect atmosphere to find rejuvenation.

What many don't know is that this specialty coffee house began as a class project under former Berea faculty member Ron Fouts. Today BC&T is one of Berea's prized venues for rebellious rhetoricians, creative minds, and sophisticated souls.

Ron Fouts, '72, left southern California to pursue his bachelor's degree in hotel management under Richard T. Hougen, who was the director of Boone Tavern. After graduation and fueled by a desire for international travel, Fouts attended Vermont's School of International Training and received his master's degree. He acknowledges a lifelong fascination with entrepreneurship; the allure for him was "facing new challenges and finding ways to make things happen."

He remembers growing up in a family that demonstrated creative approaches to finding opportunity. "Women in my family were entrepreneurs with ideas outside the mainstream," Fouts recalls. Both his grandmother and mother relied on their resourcefulness to supplement the family income. In rural North Carolina, his grandmother purchased dairy cattle and sold milk and butter in her community, while his mother started a number of small food and catering businesses, and eventually was hired as director of catering sales to the Beverly Hilton Hotel. Fouts' personal concept of entrepreneurship was later refined as his career path moved toward academia, and he became a college faculty member.

After reading an article about Fouts, former Berea College President John Stephenson contacted him and together the two began Berea's first entrepreneurship class. During the fall semester of 1989, Fouts taught 15 students "The Art of Entrepreneurship" through the business and economics department. Because of his unique teaching style, Fouts drew 35 students across the disciplines during the following Spring 1990 term.

Entrepreneurship turned out to be a subject of great interest to many because,

as Fouts says, the class was really about "the process of creating opportunity." Students in his course received \$100 to fund their own original businesses. The stipend was a loan; repayment was expected only on the condition that the projects succeeded. One such success resulted from the hard work of Berea alumna Sandra Ruggerio Gibilisco, '96, who began a cottage industry selling coffee and pastries outside Danforth Chapel in the Draper Building. Her class project became the daily pleasure of many Bereans and Berea Coffee & Tea. The business later sold to current owner Adam Walker, and it remains an ongoing success.

In this course Fouts saw the creativity of his students blossom into such diverse projects as a taxi service, catered meals, commissioned photography, and other services. Occasionally, a project or two failed to take flight. He recalls one such project by a young man who created a dating service between students at Berea and nearby Eastern Kentucky University.

As an instructor Fouts had specific goals and high expectations. "I wanted my students to learn to think beyond a job," he says. "I wanted them to be able to support themselves in life, because there are other ways of looking at economic



well-being." He often tried to "rattle their cages" to better prepare them for uncertainty and teach independence. Because many students may not know what they want from life, he taught them to look for opportunity. "Nothing necessitates a life of resignation," Fouts says, and he encourages students to take some risks.

David McHargue, '90, who now directs the College's dining services, remembers that Fouts' class prepared him well for life. Looking back he now sees an astonishing growth in his organizational abilities and professional responsibilities. That class better prepared him for a food service management career with Marriott. "Ron is very professional in everything he does," McHargue notes. "He expected you to do your best in everything."

Like Fouts, McHargue brought his professional presence home to Berea. "I chose to come back to Berea 15 years after graduation so that I could give back to the school in a special way," McHargue says. "I have the opportunity to participate in what Berea is and what Berea means to its students."

Not only did Fouts influence his students, he influenced his own classmates.

His friend Sarah Culbreth, '72, came to Berea to study music, but changed her major to art. As a young businesswoman in the 1980s, Sarah served on the board of directors of the local Chamber of Commerce. She went on to establish the business that grew into Tater Knob Pottery and Farm near Berea. In turn, she guides aspiring artists to become entrepreneurs, freely offering advice as she throws pots on her wheel. "It was Ron's support that finds me sitting behind a pottery wheel for the past 34 years," she says.

Even after his students graduated, Fouts continued to make himself available to them when the need arose. "I actually sought him out six years later for some guidance, and he was true to his word," says McHargue. "His guidance was very much appreciated."

In addition to teaching, Fouts has entertained numerous business endeavors of his own. Fresh out of graduate school, he set up a tourism management program in New Delhi, India. The program later was accredited by Michigan State University (MSU) and the London Hotel Training Council. Graduates receive diplomas from MSU. Bringing women in India into management positions, where none had

previously been, brought him great personal satisfaction. For 15 years his publishing company, Customs & Limited Editions, in San Francisco, published the works of artists from six countries around the globe. It was this publishing business that influenced President Stephenson to urge Fouts to bring his skills into the classroom at his alma mater. Today, he still works as a consultant in San Francisco.

Since the time that Fouts taught his first entrepreneurial business class at Berea, the College has developed the Entrepreneurship for the Public Good (EPG) program. EPG offers students from diverse backgrounds the opportunity to study and create entrepreneurial activities that will revitalize Appalachian communities. The program "helps students become agents of change," says business professor Debbie Brock.

Through Bereans such as Fouts, a vision of possibility is combined with planning and action to create genuine change. Fouts suggests that the ability to manifest our ideals lies in our ability to see beyond what is and into what could be.

Says Fouts, "Opportunity lies everywhere I look in life."

He Turned Campus Technology into a Career

By Maggie Greene, '08

n 1994 in the little town of Rutland, Ohio, Jason Miller, '98, sat in his living room and thought about his future plans. What were they, after all? He had originally wanted to attend college close to home and friends. His parents, however, had encouraged him to apply to Berea, and thus, he sat in a chair with the fateful envelope in hand.

Jason Miller, '98, is a partner at Dean, Dorton & Ford in Lexington, Kentucky.



In 1998 Jason Miller was a technician and student manager of the College Computer Center.

When he opened his acceptance letter to Berea College, he found that he would be living in Blue Ridge residence hall, a dormitory that didn't appear on the campus map. When he discovered that he would be working with the Computer Center, Jason breathed a sigh of relief. He felt lucky to have been assigned to an interesting labor position.

When Jason walked into the Computer Center for the first time, though, he was dumbfounded. Around him inside a laboratory stood huge mainframe computers that were attached to printers the size of kitchen counters. The primary repair technician on campus, Chuck McIntyre, greeted him. Jason recalls feeling intimidated by his gruff demeanor, but the freshman realized that there was no turning back now. There was only computer repair and his own wide-eyed attention from here.

From the beginning, Jason recalls, Mr. McIntyre "was very stern and strict at times," but the values of his labor supervisor helped to inspire a confidence in him. On that first day Jason could have never imagined from his supervisor's hard, authoritative exterior that the two would become so close. In fact, as the years progressed, Jason spent evenings working with Mr. McIntyre on his farm, following him and his principles of hard work.

The two are like family now.

The early home of Information Systems & Services (IS& S) was small and humble. Few classrooms, and even fewer students, had computers. In addition to the primary computer lab attached to Hutchins Library, other smaller labs on campus stayed busy. The computer lab in the Frost Building was 'a dungeon-like basement room' that held very few computers. The Computer Center's labs were locked by Public Safety at midnight.

During a typical finals week in the lab, Jason recalls, "Many nights, toward the end of the semester, people were camping out in there. There would be a pizza box propping the door open. You never knew what you'd find the next day when opening up." Jason, of course, was very familiar with these last-minute messes of last-minute writers. In fact, Jason was given the responsibility of opening the Computer Center at 7 a.m. and closing it at 5 p.m. each evening. This was his routine for his last two years at Berea College.

While Jason's everyday job originally was limited to basic computer operations and departmental errands, Mr. McIntyre must have sensed his potential because "He took me under his wing," Jason says. McIntyre taught him everything he knew. He taught him the value of honest labor and reminded him that, "a little bit of hard work never hurt anybody." Once exposed to this strong work ethic, Jason immediately adopted its values. Although Mr. McIntyre retired before Jason's senior year, the skills and training that he passed along prepared Jason for the responsibility of being the student manager of the Computer Center and primary computer repair technician on campus.

Jason took up where Mr. McIntyre left off. "When I was not in class, asleep, or eating, I was there all day, every day," Jason confesses. He even carried a pager (financed by the College) everywhere he went, to ensure his availability to solve the technological problems of any department. "Gail Wolford (vice president of labor and student life) didn't think I should carry a pager – especially not in class," he recalls. "But I loved it. I knew everyone on campus."

In addition to this new set of obligations, Jason kept his supervisory position over the computer operations department. Even though it was against the rules, Jason logged in over 30 hours a week in his labor position, but without him–and in the absence of Mr. McIntyre– there was not always a student technician available.

Jason's stellar qualities continued to shine. His contributions to the labor program earned him an award as the Berea College Student Employee of the Year in 1998, and he also received state, regional, and national recognition for his superior performance in student labor. Jason attributes these accomplishments to Mr. McIntyre's influence, encouragement, and distinguished example.

Jason entered Berea College a young and indecisive freshman. He thought he would pursue undergraduate studies in engineering; but, after discovering the technology and industrial arts program, Jason could see his future unfolding. This innovative field offered more hands-on, tangible experience, and it allowed him to "see the fruits" of his efforts. Technology and industrial arts studies seemed to fit his personality.

Jason recalls Berea graduates coming to speak to his technology classes. "It really helped to relieve some of the anxiety of feeling like 'Where do we go from here?' and 'How do you get out there and make your start in the world?'" he says. Now, he repays his gratitude for the opportunities he received at Berea by willingly offering his own experience and information to the next generation.

Nearly a decade after his graduation, Jason looks at the computer technology and laptop program on campus with amazement. He lauds the progress of recent wireless internet technology on



On a recent campus visit, Jason Miller stopped to chat with Judy Gergen, '76, technical services coordinator at IS&S.

campus as "a really cool concept. Imagine being able to sit outside on a bench on a spring day with your computer right there." While this was certainly not true during his time at Berea, he is nonetheless responsible for some of the grassroots ideas, research into laptops for students, and improvements to the current technology program.

The College labor program is so distinctive and its opportunities so exceptional, that Jason found "a direct correlation to the outside world and lots of job opportunities." His first job out of college was with Systems and Computer Technology Corporation, which developed one of the computer database programs the College now uses. In August 2006, Jason was named a partner of Dean, Dorton & Ford, a sizeable accounting and business consulting firm in Lexington, Kentucky. The experiences and job skills he acquired during his labor with Berea College are still those that Jason prides himself on sharing with others today. He says that the College "trained me to be versatile, to accept challenges, and to seek continuously to learn new things."

As a businessman, he does "what it takes to get the clients what they need," even if that means giving more work than is expected. As at Berea, Jason stays on-call for assistance and service to his current clients. He spearheads a group of six consultants who work to bring superior technology services to the greater Lexington area. Though most consultants in his firm are licensed accountants, he has managed to "break through that threshold" and offer his own unique qualifications in technology management to expand his company and increase service in his field.

The field of technology evolves quickly. Jason believes "It is crucial to maintain a mind open to change because the world of technology – and the world we live in–is nothing but constant change." To stay abreast of the changes and trends in his field, Jason works independently with the Lexington Young Professional Association to establish a mentor program in which nonprofit, business, and community leaders pair up with younger members of the profession in order to introduce newcomers to the community. He also works with the Rising Stars program to spotlight young people who've done something special in their career for their community or organization.

Once students needed to trek across campus to print a paper; procrastinators found themselves standing in line to simply type their assignments. Now that all students have laptops designated for their use, such inconveniences are a thing of the past. Every beep of Jason's pager, every dot matrix printer failure, every clump of dirt upturned to lay fiber-optic lines was a necessary step that has brought Berea's current students the advantages of technology.

The high school senior who wasn't sure he wanted to leave his friends in Ohio, who was unsure what subject he wanted to study, and who was mystified to find himself in a cramped room full of hulking computers has found his way – and how. At Berea College's 2006 labor awards banquet, Jason Miller reminded current students that with hard work and a good work ethic, "which you get from your family, and which Berea College cultivates and keeps going. If you capitalize on that, anything is possible."

How to Make an Make an Make an





Using a multidimensional software program, Jeremy McCoy, '09, assures that the carved angel matches its Danforth Chapel mates.

or almost 70 years, carved angels have appeared on the fascia of the upper choir loft in Danforth Chapel. They have overseen weddings, church services, and contemplative prayers. In 1938 student woodcrafters carved four angels, each standing about ten inches tall and holding an open Bible. Years ago – no one can say precisely when – two of the angels disappeared.

When Reverend Kent Gilbert of Union Church learned that the technology and industrial arts department had acquired a three-dimensional scanner, he contacted the department head, Gary Mahoney, '82, and proposed a project to recreate the missing angels. "Danforth Chapel is a place where students, faculty, and outsiders to the College come for their collective or individual spiritual needs," Gilbert says. He felt called to recreate the original vision of William H. Danforth, the trustee who first funded the chapel's construction.

The restoration of the angels involved three stages: image scanning, computer modification, and wood carving. During spring 2005, Mahoney and Lindsay Longsreth, '06, used the recently acquired Romer Cimcore Series 3000i 3D Scanner and the Techno Isel CNC Router to scan one of the angels. Accurately scanning the angel in situ on the choir loft balcony presented a challenge. The slightest movement would have created erroneous data. The task required Facilities Management to lift and steady the heavy scanner six feet off the ground while the precise red light of the laser slid over the surface of the angel and recorded the necessary coordinates into the computer.

Three-dimensional scanning is a valuable technological tool, Mahoney explains. "Around the world, scholars can take an artifact, scan it, and send the image anywhere in the world for others to see."

Even slight, unavoidable movements of the laser beam create redundant scanned coordinates. Any duplicate points inevitably lead to multiple layers on the computer-generated image. These extra layers are removed electronically using software packages to recreate a single layer for the surface of the computerized angel.

During Mahoney's fall 2006 Computer Integrated Manufacturing class, students polished the surface of the angel's computer image. They used the multidimensional Raindrop Geomagic software to survey the faults of the image, correct the recorded mathematical data, and create an accurate surface for the angel.

Cutting out the angels involved feeding the polished computer image into the CNC router, which read the precise coordinates and traced the images in wood. During spring 2007 the new angels were carved in white oak, reputedly from a branch of the "Fee tree." The technology department saved a branch from the historic tree that Reverend John G. Fee often used as a location to preach to the Berea community.

This technological feat of reverse engineering, Mahoney says, "is not only a bridge for the future between the students and the College, but also one that reconnects the college to its past. Recreating the angels using wood from the 'Fee tree' is an incredible way of incorporating a great part of Berea's history into its future."

Once finished, the two new angels will hang in the chapel, indistinguishable from their older counterparts.

> -Virginia Senkomago, '07, Christopher McKenzie, '08, and Stephanie Phillips, '07

Dear Berea alumni and Friends,

In our recent short term course, "Philanthropy and Volunteerism," we learned a great deal about the world of giving. We are grateful to the many people whose thoughtful gifts support us at Berea College.

We feel that the dozens of foundations and many people who made gifts to the \$8 million laptop computer endowment are nothing short of amazing. For some of us, our Berea laptops were our first computers. We use these gifts constantly. The five of us would like you to know some of the specific ways we use our laptops daily: as donors to the laptop endowment, you have



"Coming from a developing country, I had little computer knowledge and could hardly perform the most basic computing functions. However, my

experiences with the laptop have brought me to the very top in terms of computer literacy, especially compared to many in my home country. Having access to such technology at Berea has demystified it so that I am now better prepared to harness it when I graduate."

- Fred Rweru, '07, Kampala, Uganda



"I would be absolutely lost in my labor assignment without my laptop. As student editor of BCnow!, the College's

events website, I use my laptop daily to send assignments to reporters, edit articles, and post them on our webpage. BCnow! operations would seriously suffer if we were forced to share the two office computers among the eight staff members!"

- Mary Rush, '07, Lorain, Ohio

"Berea students feel like they are progressing with technology instead of trying to chase technology. Because of the laptop program we have an opportunity

to dive into such things as photography, web design, and creative imaging. This is something that I do not take for granted, and I am thankful every time I receive an email from my family or each time that I have the opportunity to create something unique for a presentation."

- Jeremy McQueen, '08, Annville, Kentucky



I use recording software on my computer to record my music lessons (piano and voice) and then go back and listen to my training later. I also

use a newly developed software program to play the music when my accompanist is unavailable. As a teaching associate for the choir, I am responsible for finding new gospel songs and ordering sheet music. My research and work are accomplished through the laptop your donation provided."

- Emmanuel J. Stokes,'08, Morristown, Tennessee

life. To those who contribute to the Berea College mission in any way, we thank you.

touched every single Berea student's



"As the public relations secretary for the Student Government Association, my laptop better equips me to serve the students.

Access to the internet allows me to communicate with other student government officers as well as to update the student body on important events. Software programs allow me to compile newsletters and have precise and clear presentations. And, the laptop aids me as I begin to search for law schools and apply for postgraduate fellowships."

> - Mikita A. Weaver, '08, Bethany, West Virginia

photos by: Caitlin Ambrose, '10; Tyler Castells, '08; and Rachel Wetmore, '09

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Alumni Connections

With more than 17,000 members around the world, the Berea College Alumni Association represents a diverse yet connected extended community. We encourage all our alums to develop strong ties with friends and to Berea by engaging in our many programs, services, and activities.



Berea is Coming to You! Berea College Alumni Chapters are all over the country—one is probably meeting near you!

For more information, contact the Office of Alumni Relations at 1.866.804.0591, or email chris_schill@berea.edu.

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HOMECOMING Nov. 9-12 M ake this the year you come home_____

FRIDAY, NOV. 9

Alumni Awards Reception Baird Lounge 6:00 p.m.

Student-Alumni Speed Networking Social Boone Tavern 8:00 p.m.

SATURDAY, NOV. 10

Berea 5-K Run Berea College Campus 8:00 a.m.

Homecoming Parade 11:00 a.m.

Homecoming Barbeque on the Quad Campus Quad 12:00 p.m.

Berea v. University of Virginia at Wise Men's and Women's Basketball Seabury Center 5:30 p.m.

Alumni Mixer & Dance Baird Lounge 9:00 p.m.

SUNDAY, NOV. 11

Homecoming Service Union Church 10:30 a.m.





Sponsored by the Office of Alumni Relations Visit www.berea.edu/alumni/homecoming

About Berea People

1930

Donnell Gould celebrated his 97th birthday with family. He resides in Kerrville, TX

1942

Roberta Larew Allison was named "CIVITAN of the Year" for the West Virginia District of CIVITAN Clubs.

1944

Olga Beck Bracht and Milton Bracht celebrated their 60th anniversary April 26, 2006, with their son Joseph, his wife Freda, and grandchildren, Marianna and Eric.

1945

Zuria Austin, Acad '41, regrets missing the 2006 Foundation Reunion and being with her friends.

Jennie Westlake Findley and Hal Findley celebrated their 60th wedding anniversary in April 2006. Jennie is a retired educator. They reside in Fleming, WV

1946

Lucille Davis Juett, Marsha Daniel Muir, '68, and Dan Daniel, '66, exchange Berea stories at the senior center in Ashland KY

1948

Ray Davenport was awarded the 2006 Gtizen of the Year Award by the Fleming County Chamber of Commerce. He resides in Hemingsburg, KY.

Ola Faye Massey Eplee resides in Portage, M.

1951

Pete McNeill and Anna Lou McNeill, Cx '52, attended the one-year wedding anniversary of their grandson in Calcutta, India.

1952

Walter W. Jacobs, Fd '48, was captain of a tennis team that won the 2006 state championship at Seabrook Island. He has been an independent insurance agent for 13 years since retiring as minister of education in Baptist churches, which he served for 40 years. Walter is the South Carolina alumni chapter coordinator.

Leah Ann Kidd resides in Gab Orchard, TN

1953

Ola Faye Massey

Eplee, '48

Frances Dillingham teaches an adult Sunday school class and is the primary care giver for Allen Price, her husband. She resides in Whiteville, NC

Hal Perry, Knapp '49, Fd '53, and Mary Perry, Fd '53, celebrated their 50th wedding anniversary and confirmation of vows on July 12, 2003 in Humbolt, TN, where the couple resides.

Walter Jacobs,

'52

Keep in Touch

The Berea College Office of Alumni Relations enjoys hearing from Bereans from all over the U.S. and the world. The "About Berea People" section of Berea College Magazine reports verifiable news that has been sent to our office by the alumni. BCM reports the news you wish to share with your alumni friends and associates. "About Berea People" reports changes in careers, addresses, weddings, retirements, births, and other items of importance to our alumni. Please include your class year and name used while attending Berea. Notes may be edited for style and length. For more information on how to submit class notes and photographs call 1.866.804.0591, email diana_taylor@berea.edu, or log on to www.berea.edu/alumni.

1954

Philip M. Hampton is president of Hampton Engineering Assoc., a division of OHMLtd. He is also a registered professional engineer, a certified professional geologist, and a fellow of American Council of Engineering Consultants. He and W Chris Gross Hampton, Cx '54, reside in Waterford, MI.

Nancy Biddix McKinnis and William "Bill" McKinnis celebrated their 50th wedding anniversary on November 26, 2005, with family and friends in attendance. They reside in Polk Gty, FL

1955

Billy Edd Wheeler is painting again. His work was showcased at the Seven Sisters Gallery in Black Mountain. Billy Edd resides in Swannanoa, NC

1956

Rita Manuel Barnes retired from teaching middle school in Baltimore. She is active in the choir and senior ministry at her church in Gen Burnie, MD, where she resides.

David P. Spangler retired in 2003 from the University of Horida. He attended his 50th class year reunion in Berea last summer.

1957

Leo Gibson retired as an ob-gyn practitioner in 2003. Lisa Gbson, his wife, has retired as well, and the couple resides in Picayune, MS.

Betty Gasaway Hartsell, Gene Hartsell, and Carrie Holcomb Bottenfield visited Anna Walker Collins in Orinda, CAlast October. Betty and Gene Hartsell reside in Pittston, NJ. Carrie Bottenfield resides in Cupertino, CA

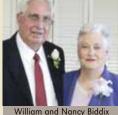
1958

Leah Ann Kidd. '52

John Holbrook was elected as magistrate in



Mary Perry, Fd '53 and Hal Perry, Knapp '49, Fd '53



McKinnis, '54

Rockcastle County and began his term in January 2007. John resides in Mt. Vernon, KY.

1961

Truman Fields was re-elected to the Berea city council. He plays tennis and ranks in Kentucky tennis standings.

1962

Hazel Brown is the Eloise R. Lewis Excellence Professor in the School of Nursing at the University of North Carolina at Greensboro. She resides in Yadkinville, NC.

Ruth Ann Burton Gaylord was presented the Lyman T. Johnson Alumni "Torch of Excellence" award by the University of Kentucky Alumni Association in 2006. She has a master's degree in library science and is the assistant manager of the Eagle Greek Branch Library in Lexington. Ruth is the first full-time professional African American librarian in the Lexington Public Library system.

Wayne Standifer retired from the metro Atlantic public school system in 1998 after 40 years. He is now employed full-time as reference librarian at Lee University in Geveland, TN where he resides.

1963

William Collins is a retired high school administrator for the Bullitt County School System. He resides in Mount Washington, KY.

1966

Dan Daniel, Marsha Daniel Muir, '68, and Lucille Davis Juett, '46, exchange Berea stories at the senior center in Ashland, KY

Dr. Delmar D. Dingus is professor of the Earth and Soil Sciences Department in the College of Agriculture, Food and Environmental Sciences at Cal Poly University. He was the recipient of the 2006 Cal Poly International Educator Award. Dr. Dingus resides in San Luis Obispo, CA

Martha Hill received the Distinguished Nurse of the Year 2006 Award from the Kentucky Nurse Association. She resides in Gendale, KY

Edgar Moody was elected as Chancellor of Sullivan County, TN on August 3, 2006 for an eight year term. She resides in Kingsport, TN

Breck Robbins has played and managed the National Adult Baseball Tournament 60 and over division in Las Vegas, NV for three years. He won three national championships in slow pitch softball. Breck resides in Cleveland, OH.

1968

Betty Dotson-Lewis, Cx '68, has written a new book Sago Mine Disaster which features Appalachian coalfield stories. She resides in Summersville, W.

James "Jim" Phelps, Jr. was recently installed for a term as National Association of Extension Agents historian -Board of Trustees.

Rita Manuel Barnes

'56



Gaylord, '62

1970

Eldon Ball presented a paper called "Competitiveness in Agriculture and the Food Industry. US and EU Perspectives" in the plenary session of the international conference held in 2006 at the University of Bologna, Italy. He resides in Oak Hill, VA

1971

Candice Shelton Strickler is a technical librarian at the Oak Ridge National Laboratory. Dennis Strickler retired in 2005 from the research staff at Oak Ridge National Laboratory. He has won the Tennessee state tennis championships for his age division in 2004, 2005, and 2006. They reside in Oak Ridge, TN

1972

Novena Tirimble retired in June 2005 after 31 years of teaching. Her last position was at Viper Hementary in Perry County, KY Novena resides in Hazard, KY

William Weir is on a cycle journey around Asia and ending in India.

1973

George Moore was nominated for appointment to the state personnel board of Kentucky by Attorney General Greg Stumbo. He resides in Mount Sterling, KY.

1974

Steven Connelly was reelected for a second term as mayor of Berea. He is the fourth mayor in Berea's history. He and Thana Taylor Connelly, '73, have two sons, Reid and Hhan.

Roger Marcum received the Kentucky School Board Association 2006 Dupree Avard as the Kentucky Superintendent of the Year. He also received the 2006 Kentucky Association of School Guncils Vision Avard. Roger went to a China leadership conference in 2006 held in Beijing and Xan. **Bobbie Marcum**, '75, is an ob-gyn nurse practitioner at the Lincoln Trail District Health Department. The couple resides in Lebanon, KY.

1975

Stephanie McCoy is attending Jefferson Community College to become an occupational therapist assistant.

Larry K. Woods was one of 15 to be appointed by Kentucky Governor Ernie Hetcher to the state Council for Community Education. He and Sharon Kinser Woods, '78, reside in Morgantown, KY

1977

Robert Hutchins and Nancy Rosser Hutchins attended Homecoming 2006. Nancy had a show of pastel artwork at a gallery on Short Street in Berea. The couple resides in Sebastopol, CA

1979

Dr. Anthony C. Hackney of the Department of Exercise & Sport Science and Department of Nutrition at the University of North Carolina was a keynote speaker at the first international conference of sports medicine sponsored by the International Federation of Sports Medicine in Krakow, Poland in 2006. Dr. Hackney resides in Hillsborough, NC.

Judy Rafson is a self-employed family nurse practitioner providing pediatric care in two counties in eastern North Carolina. She and Cliff Rafson, her husband, reside in New Bern, NC

1982

Jennifer Qudeen and John Qudeen reside in Redding, CT.

1983

Sidi Bojang was in Accra, Chana in 2004 for the National Youth Services Global Conference. He has two sons and resides in Silver Springs, MD.

David Napier retired as a Lt.Col. from the U.S. Army after 22 years of service. He received the Legion of Merit medal. David is a program manager with Northrop Grumman. Stacy Napier, CX'85, is a RNat the Great Plains Surgery Center. They reside in Lawton, OK

Kenneth VanEtten is a music teacher in the Corning area school district. Jennifer VanEtten is a retail store manager at Gass Menagerie. Their daughter, Sarah VanEtten, '02, is a school librarian in New Jersey. Kenneth and Jennifer reside in Corning, NY.

1984

Reedus Back was presented a plaque in recognition of his leadership in founding the Nationwide Organization in 1994 with his continuing service as president. He was honored by the Back/Bach Genealogical Society. Reedus and Carrie Back reside in Morehead, KY

1985

Mike Hackworth and Tina Yount Hackworth, '84, have a new granddaughter, Melody Marie Hackworth-Moseley, born 2006 to their daughter Katherine. Tina's father is **Dr. James Yount**, a former Berea professor. Mike and Tina reside in Berea, KY.

1987

Karen Handers is a stay-at-home mom who works with a children's choir and assists her local school. Karen and Scott, her husband, reside in Fairfax, VA with their three daughters, Ginny, Abigail, and Lilly.

James Donald "J.D." Williams illustrated two children's books: one for Margot Justice entitled *Tails of Windswept Farm* and one for Margaret Ross entitled *Camp Gonatakacara Yuki*. J.D. is working on a DVD project for PBS on Appalachian storytelling with his original sketches, songs, and stories. He resides in Williamstown, WV

1988

Dan Daniel, '66; Lucille Davis Juett, '46; an

Marsha Daniel Muir, '68;

Kris Johnson is a cut flower grower. He resides in Louisville, KY.



Steven Davenport is the associate director of the United States military academy's library. He resides in Highland Falls, NY.

Rancie M Fester was listed in 2006 *Who's Who* Among American Teachers. She teaches at Madison Central High School.

Ronda Foust published an article entitled "Techno-Kutz Meets the Blog" in the January 2007 issue (25::4), of *Library Media Connection*. She resides in Oak Ridge, TN

Jeannie Robinette King graduated with a nursing degree in May 2006. She lives in Versailles, KY.

1990

Julia Napier Alexander, Cx'90, works for the Pickens County library system. She and Keenan, her husband, reside in Pickens, SC with daughters, Reva and Anna.

Jaleen Zion Cagle is a registered nurse, BSN in the critical care department of the University of Kentucky hospital in Lexington, KY Travis Cagle is a team leader at the Toyota Motor Manufacturing Company. The couple resides in Lexington, KY with their son, Joshua Taelen, and daughter, Chloe Morgan.

Birth: Ason, Nathan, to **Jennifer Ferrell**, Cx' 90, and **Kevin Ferrell**, '91, on June 17, 2006. The family, including older daughter Cassie, resides in Richmond, IN

Marsha Nash teaches middle school music at Southern Middle School in Pulaski County, KY.

Connie Schenck is a private practitioner at Beaumont Behavioral Health in Lexington, KY. She resides in Danville, KY.

1991

Gregg Collins teaches band and chorus at Man High School. Wendy Collins is a preschool teacher and a child development specialist with the West Virginia Birth-to-Three Program. The couple resides in Davin, WW with their daughter, Katie, and son, Isaac.

Michael J. Hunt is a physical therapist assistant, and Carol Knierim Hunt is a physical therapist with Commonwealth Physical Therapy. The couple resides in Berea, KY with their daughter, Joanna Naomi, and son, Jaben Michael.

Jess Williams is vice president of sales and marketing at Quest Information Systems in Indianapolis, IN He and Tracy Payne Williams, '92, reside in Fishers, IN with their children, Hannah, Andrew, Emma, and Caleb.

1993

Suzannah Hicks works in development at Berea College. She resides in Berea, KY

Date Jefferson was named Topcon Positioning Systems software business development manager. He resides in Maysville, KY

Amanda Schreiner is a substitute teacher with Hardin County Schools. She resides in Radcliff, KY.

1994

Christopher Field, CX '94, is a web producer with the RAND Corporation. He has earned master's degrees in library and information science, and higher education.



Breck Robbins, '66



Karen Flanders, '87, and family

Christopher resides in Pittsburgh, PA

Wayan Mastriyana "Mas" is employed as an international credential evaluator at Virginia Commonwealth University where he also is pursuing a doctorate in public policy and administration. His son, Vidya, is in kindergarten. Mas lives in Richmond VA

Charles Musana is the vice president of administration and finance at the College of Micronesia-FSM He resides in Pohnpei, Federated States of Micronesia.

Birth: Adaughter, Katie Marie Parks, to Giftina Weakley Parks and Christopher Parks on September 21, 2006.

1995

Dr. Raelynn Deaton teaches in the biology department at Sam Houston State University in Huntsville, TX where she resides

Edward Hager resides in Nashville, TN

Married: Julie Utz-Hocker to Shawn Hocker in August 2006. The couple resides in Erlanger, KY

Birth: Ason, Caleb Nathanael, to Jenny Jones and Larry Jones, '98, on December 29, 2006. Jenny teaches Spanish at Morristown West High School and Larry is a migrant assistant with the Hamblen County Schools. The family resides in Morristown, TN and have two other sons, Aaron and Noah.

Married: Mae Suramek to Adam Mullikin on January 20, 2007. Mae is the director of Aumni Relations and Adam is a senior technician at Information Systems and Services at Berea College.

1996

Angela Caine is a master's level advisor at The Carlbrook School, a therapeutic boarding school. She resides in Danville, VA

Birth: Ason, Logan Alexander Hancock, to Stephanie Kendrick Hancock and Dr. Dennis Hancock, '97, on August 16, 2006. The family resides in Athens, GA and have two other sons, Liam Ethan, and Andrew Joseph.

Monica Miller-Olmsted and Branden Olmsted live in Lawrenceburg, KY with their son, Jonathan.

Aimee Johnson Ralph and Michael Ralph have one child, Patrick Ralph, born in 2004. The family resides in Mt. Sterling, KY

Anthony Tackett and Eugenia Wilson Tackett, '97, reside in Wittensville, KY.

Greg Wiseman and Tina Napper-Wiseman reside in Hebron, KY with sons Sean and Matthew.

Kyle T. Witten is an accountant for the Transportation Cabinet for the Commonwealth of Kentucky. He graduated in December 2006 from Thomas Edison State College with a degree in mathematics and natural science.

1997

Brelia Renee Dousay has a master's degree from Morehead State University and is employed as a mental health therapist at Pathways, Inc. She resides in Jackson, KY

Birth: Adaughter, Miriam Virginia Elder Pace, to Katie Elder and Bradley Pace on July 12, 2006. Bradley received his doctorate in philosophy at the University of Illinois and is pursuing his master's of divinity at Seabury-Western Theological Seminary. The family resides in Evanston, IL

Birth: Adaughter, Norah Isabella, to Jessica Evans and Steven Evans on December 23, 2006. The family resides in Easley, SC.

Dennis W Hancock completed a doctorate in crop science at the University of Kentucky in 2006. He received a Gerald O. Mott Meritorious Graduate Student Award in Grop Science, top emerging scientist award by the American Forage and Grassland Council, and the J. Fielding Reed Fellowship award. He is an assistant professor and extension forage agronomist in the crop and soil sciences department at the University of Georgia. He and Stephanie L Kendrick Hancock, '96, reside near Athens, GAwith their three sons.

Patrick C. Lanham was stationed in Iraq and came back to the States early this year. He and Amanda Miller Lanham have one son, Patrick James Lanham, born in 2005.

Cynthia Ludwig received her master's of library science from Drexel University in 2006. She resides in Renton, WA

Terecia Polley is a registered nurse at Three River Medical Center in Louisa, KY. She works in the intensive care and coronary care units of the medical center. Terecia resides in Louisa, KY.

1998

Shayne Harrison completed his master's in organizational training and adult education from Tusculum College in Greeneville, TN He is a regional trainer with the Foreign and Commonwealth Office of the British Embassy in Washington, DC. Shayne resides in Arlington, VA

Married: Brian Allan Jump to Mindy Louis Snapp on May 20, 2006. Brian is an internal auditor at Ashland Inc. and Mindy is an accountant for Gobal Fitness Holdings. The couple resides in Richmond, KY.

Birth: Adaughter, Molly Jameson Dakota Kirk, to Ricky Kirk and Cathy Kirk, Cx '99, on November 28, 2006. Ricky is pastor of First Southern Baptist Church in South Point, OH. The couple resides in Worthington, KY with their older daughter, Hannah.

Dustin Owens received the city of Bowling Green's Blue Print Award for his outstanding contributions in neighborhood activism. He accepted a position with the state of Tennessee to assist cities in creating better infrastructures.

Joseph G. White is pastor of Bybee United Methodist Church and working on a master's of divinity at Asbury Theological Seminary in Wilmore, KY. Laurie H. White, '03, is the store manager of PeaceGraft in Berea. They have two children - a son, Cooper, and a daughter, Ainsley.

1999

Tony DeSpain is the World Languages department chair at Southern High School Magnet Career Academy in Louisville, KY He earned his secondary guidance counselor certificate from Western Kentucky University in 2006.

Birth: Ason, Jacob Alexander, to Heather Joy Forshey Shoemaker and Joseph Shoemaker on September 21, 2006. Heather works as a catering sales manager for Embassy Suites Hotels in Independence, OH. The family resides in Shaker Heights, OH.

Andrew Watson completed his master's degree in communications at Morehead State University in 2006.



lae Suramek, '95, and Adam Mullikin



daughter



Shavne Harrison, '98



Katy Sulfridge, '03

2000

Brandy Sloan Brabham is the marketing specialist at the West Virginia Department of Agriculture. Brandy resides in Gay, W.

Iveta Kyselova works at UBS, a global financial firm. She resides in London, England.

Birth: Adaughter, Anne Marie, to Jessie Reeder Oliver and Matthew Oliver. The Olivers reside in Lima, OH with their first-born daughter, Elena.

2001

Shawn Adkins graduated from Indiana Wesleyan University in 2006 with an MBAin management. He is a senior commercial insurance underwriter at Gncinnati Financial Corporation. Shawn resides in Fairfield, OH.

Stephen Edington graduated with an MBA from the University of Louisville in 2006.

Beth Williamson Morton is the executive director at Bracktown Academy Learning Center in Lexington, KY She and Eric Morton, '00, reside in Lexington, KY with their son, Maxwell Clay, and daughter, Mariah Kayrie.

Lauren Roth is in her second year of medical school at the University of Vermont, Lauren resides in Burlington, VE

Married: Terrence C. Surles to Jakira B. Surles, '03, on August 26, 2006. The couple resides in Antioch, TN

2002

Birth: Ason, Chayton Josiah, to Scott Darst and Abbie Tanyhill Darst, '03, on September 13, 2006. Scott works as a Madison County extension agent for 4-H/ Youth Development. Abbie is a public information officer for the Griminal Justice Department. They reside in Berea, KY

William Hagans, II graduated from Auburn University College of Veterinary Medicine in 2006. He is employed at the Appalachian Animal Hospital in Hazard, KY Sarah VanEtten is a school librarian in Mount Laurel.

N where she resides.

Birth: Ason, Austin Adair, to Patricia Weiner and Michael Weiner on January 2, 2006. The family resides in Berea KY

2003

Married: George Hill to Niyetta Williams Hill, '04. on July 1, 2006. The couple resides in Arden, NC

Married: Donna Millard to Jason Shaw on June 24, 2006. They are students at the Southern Baptist Theological Seminary in Louisville, KY

Shalamar Sandifer is pursuing a full-time nursing degree at Eastern Kentucky University. She resides in Richmond, KY.

Katy Sulfridge is a member of AmeriCorps VISTA She has been assigned to Rural Action in Trimble, OH. Rural Action works to promote economic, social, and environmental justice in Appalachian Ohio.

Grystal Wayne Taylor completed her master's degree in human relations from Liberty University in 2006.

Andra Turner teaches physical education at Dennis C Wooten Elementary school. She resides in Hazard, KY.

Laurie H. White is the store manager of PeaceGraft in Berea. Joseph G. White, '98, is pastor of Bybee United Methodist Church and working toward a master's of divinity at Asbury Theological Seminary in Wilmore, KY. They have two children - a son, Cooper, and a daughter, Ainsley.

2004

Aladdin Al-Haddad won first prize in graduate research of computer science in Kentucky Academy of Science in Morehead, KYlast year.

Grystal Baldwin, as an alumna of the Trio programs, presented an award to Jim Jeffords, Senator of Vermont, last year in Washington, DC

Frik Beckman works for the Kentucky Employers Mutual Insurance Company in Lexington, KY

Rebecca Honaker is 4-H program assistant in the Pike County, Kentucky extension office.

Married: Juli Kiddle to Charles Foley on September 9, 2006. The couple resides in Hampton, VA

Reneen Mincy is a Peace Corps volunteer in Bougouri, Mali West Africa.

Jill Robertson is a case manager for Kentucky River Community Care working with MR/DD individuals.

Katherine Stepp received her master's degree in information science, with honors, at the University of Tennessee in Knoxville in 2005. Katherine resides in New Orleans, LA

2005

Mbhammed Aiyegbo is working on a doctorate in microbiology and immunology at Vanderbilt University. He lives in Nashville, TN

Rachel Bates is a mental health associate at Bluegrass Personal Gare Home. She and Brad Jenkins reside in Lexington, KY

Rebecca L Kuhl works horses in Jackson County, Kentucky for a private owner.

Chad McPherson works at *Kentucky Homes* Migazine. He and Denessa McPherson reside in Berea. Janet Mever resides in Turners Station, KY

Andrew J. Oles and Ieslie C Ferguson-Oles reside in Berea, KY Andrew manages the College greenhouse. Ieslie is a freelance journalist and baker.

Katie Panciera was awarded a National Science Foundation graduate research fellowship for her research in assistive robotics for children with autism. She researches, designs, and evaluates robots to assist in therapy for autistic children. Katie is working toward a doctorate in computer science at the University of Mnnesota – Twin Gties.

Ruth Ann Rogers is a lead teacher at the Little Leprechaun Academy in Mason, OH. She and her sister are starting a real estate company.

2006

Rhiannon Chambers is planning a trip to Mexico. She resides in Knoxville, TN

Inke Faulconbridge Keeler entered the Peace Corps in February 2007. He will be in Paraguay for two years and three months.

Tonya R. Smith is a family and consumer science teacher at Bardstown High School in Bardstown, KY where she resides with her six-year-old son.

Rebecca Trembula teaches Spanish at Rockcastle County High School and resides in Mt. Vernon, KY.



Passages

The "Passages" section of the *Berea College Migazine* honors Bereans who have passed away. If you know of a Berean who has died, please let the Aumni Association know by sending a copy of the obituary to CPO 2203 Berea, KY40403. Or you may email diana_taylor@berea.edu. Please include the person's class year or connection to Berea, and the date and place of death.

1920s

Nota Combs Hunt, Cx '26, of Columbus, OH, died July 20, 2006. She was a teacher for the Columbus public schools for 25 years and specialized in elementary education.

Delbert Marcum, Cx '29, of Sand Cap, KY, died October 22, 2006. He is survived by Bertha Marcum, his wife of 71 years.

1930s

Dr. E.R. Hayes, Cx '30, of Dallas, TX died November 6, 2006. He was in the army during World War II serving in the United States and in Europe, ranking from first lieutenant to colonel. He retired from his medical practice in 1986. He is survived by Mary Hayes, his wife of 73 years.

Edna Price Flack, '33, of Southfield, M, died November 2, 2006. She was a retired teacher.

Dr. Charles Kermit Pitt, '35, of Decatur, AL, died November 5, 2006. He practiced pediatrics in Decatur for 50 years. He is survived by Zelda Pitt, his wife.

Nell Lake Veale, '**35**, of Ncholasville, KY, died January 8, 2007. She retired from the Jessamine County extension office in 1976. She was instrumental in expanding the Homemakers Gubs and the 4-H Gubs in the county.

Larry P. Morgan, '36, of Charlotte, NC died January 3, 2007. He retired from Southern Bell Telephone as general personnel manager after 40 years of service.

Elizabeth C. Rogers, Acad '36, BC'61, of Louisville, KY, died December 6, 2006. She was a retired teacher for the Jefferson County public school system.

Gadys Carson Williams West, '37, of Hover, AL, died December 22, 2006. She was a retired librarian.

Harvey W Lance, '38, of Tucson, AZ, died November 15, 2006. He had been employed at the National Bureau of Standards in both Washington, DC and Boulder, CO, where he became chief of the calibration division.

Laura Whitis Long, Acad '38, of Seattle, WA died November 1, 2006. She had worked for the war department during the 1940s while the Pentagon was being built and for the Grafts Co-Op at Berea College. Laura is survived by Angela E Petruncia, her daughter.

James Ernest Hill, '39, of Birmingham, AL, died September 7, 2006. He was head of the metallurgy department, mill works manager, and, later, head of sales for Tennessee Coal, Iron & Railroad Company in Birmingham. He traveled the world to sell tin plate and was responsible for 50 percent of the tin plate sales. Mr. Hill was also past president of the Aumni Association at Berea College.

Joe W Meador, Acad '39, of Knoxville, TN died November 28, 2006. He was a first lieutenant and a B-17 pilot during World War II, and a retired designer-draftsman at General Motors in Indianapolis. He is survived by Jeanne Meador, his wife.

1940s

Grayce L Dick, '40, of Bradenton, H, died December 12, 2006.

Hurshal James Skaggs, '40, of Oil Springs, KY, died June 11, 2003. He was a claims processor.

Shirley Mae Fetty, Cx '42, of Columbus, OH, died December 12, 2006. She was a retired nurse's aide at Federal Gass Company.

Fred Alton Wesley, Sr., '43, of New Castle, DE, died November 5, 2006. He worked for DuPont as an engineer for 35 years and retired in 1987. He is survived by Lillian Winterringer Wesley, his wife of 60 years.

Frederick E Berger, Navy V12 '43-'44, of Seneca, SC, died November 20, 2006. He was an ensign in the U.S. Navy in World War II and became a physicist and an electrical engineer.

James O. Saul, Navy V-12 '43-'44, of Centralia, IL, died October 22, 2006.

James Edward Shriner, Navy V-12 '43-'44, of Naples, FL, died October 6, 2006.

Edward Hugo Wilhelmi, Navy V-12 '43-'44, of Las Végas, NV, died September 20, 2006. He worked at Rockwell as a procurement manager for 21 years. He is survived by Patti Wilhelmi, his wife.

Marian Merchant, '44, of Virginia Beach, VA, died October 25, 2006. She was a homemaker.

Thor Thoroddsson, Cx '44, of Posey, CA, died March 1, 2006.

Peter C. Infburrow, Cx '45, of Manhattan, KS, died January 4, 2007. He was in the U.S. Army and served in the Battle of the Bulge, attaining many honors. He started his career in the plastics field and was very successful at his jobs, helping to expand and improve on many household items. He is survived by Dorothy, his wife.

Karen Lee Whitaker, '45, of Asheville, NC died November 24, 2006. She worked on the Manhattan Project during World War II for Standard Oil and then American Petroleum Institute in computer information retrieval, and in research and development at the University of Southern California Ear, Nose and Throat department laboratory. She is survived by **Dr. Clay Westerfield Whitaker, '48,** her husband of 62 years.

Mary Stanley Dunn, '46, of Charleston, W, died December 17, 2006. She taught school for a time, but her true vocation was creating a home for her husband and family. She is survived by Kenneth Dunn, her husband of 58 years.

Dr. Merle Stanley Clemons, '48, of Lexington, KY, died on October 27, 2006. She had taught at Belfry High School, University of Kentucky, Mdway College, and Georgetown College. She retired in 1992.

Aracely Chelo Recio, Cx '48, of Mami, H., died December 8, 2006. She is survived by Ruben Recio, '51, her husband.

Doris Green, '49, of Somerset, KY, died October 30, 2006. She was a retired home economics and early childhood development school teacher in the private and pubic schools.



Beatrice Lovett, '49, of Decatur, IL, died on December 29, 2006. She worked as a mechanic at an ammunitions plant in North Carolina during World War II. She retired from the Department of Children and Family Services as a regional coordinator. Beatrice is survived by two sisters and a brother.

Nobuyuki Yokogawa, '49, of Yorba Linda, CA, died December 8, 2006. He is survived by Marie, his wife. 1950s

Galen Martin, '51, of Jeffersontown, KY died December 19, 2006. He was one of Kentucky's foremost civil rights advocates for more than four decades. He played a key role in writing and passing Kentucky's Gvil Rights Act in 1966 and led the effort that resulted in the passage of Kentucky's Fair Housing Act. He is survived by Lou Martin, '51, his wife.

Homer Ledford, Cx '52, of Winchester, KY, died December 11, 2006. He worked as a high school industrial arts teacher and became a full-time instrument maker. Samples of his craft are in the Smithsonian Institution. He is survived by Colista Ledford, '53, his wife of more than 50 years.

Mary Magdelene Peters, of Upper Marlboro, MD, died October 14, 2006. She is survived by Urban Peters, Cx '52, her husband of over 50 years.

Avonelle Van Horn Sublett, '52, of Medina, OH, died October 11, 2006.

Bobby Albert Hayes, '53, of Opelika, AL, died November 12, 2006. He was a veteran of the U.S. Navy. Dr. Dan Kohler, of Grants Pass, OR, died December 13,

2006. He is survived by Suzi Kohler, '53, his wife.

Billy Keith Hasty, '54, of Huntsville, AL, died October 21, 2006. He was a high school social studies teacher and an auditor for MICOM He retired in 1991. He is survived by Carolyn Hasty, his wife.

Jesse Lee Amburgey, '57, of Mallie, KY, died December 22, 2006. He was director of Community Action Council, LKIP, in eastern Kentucky, later serving as a board member until his death. The Kentucky Association for Community Action named an annual award in his honor. Jesse is survived by Betty Smathers Amburgey, Cx '60, his wife.

Tully Larew, '58, of Greenville, WV, died December 24, 2006. He was a U.S. Army veteran and served in the Korean conflict. Tully was a farmer and retired school teacher. He is survived by Wilma Caudill Larew, '58, his wife.

1960s

Dr. Joseph Ferrell McCann, '60, of Salisbury, NC, died November 1, 2006.

Elizabeth C. Rogers, '61, Acad '36, of Louisville, KY, died December 6, 2006. She was a retired teacher for the Jefferson County public school system.

Sonja Wilson Zaumeyer, '61, of Lexington, KY, died November 3, 2006.

Dr. Walter Edward Dunnavent, III, '62, of Harrisburg, PA, died December 7, 2006. He is survived by Angela Dunnavent, Cx '61, his wife.

Beverly A. Hamill Van Valer, Cx '63, of Greenwood, IN, died December 22, 2006. She is survived by Pat K Van Valer, her husband.

Kash Mullins, Cx '64, of New Iberia, LA, died November 29, 2005. He was in sales for the last five years in Berea, KY Kash is survived by Annie Mullins, his wife.

Terry Lee Hile, '65, of Lexington, KY, died December 23, 2006. He served in the U.S. Army and taught from 1971-97 at Tates Greek High School in Lexington. He is survived by Sue Hile Atkinson, '58, his sister, and Danny Hile, his brother.

Tincie Marie Worrell Rogers, Cx '67, of Richmond, KY, died November 28, 2006. She was a retired school teacher. Tincie is survived by Hargus Rogers, her husband.

1970s

Valerie Hovey Cullinane, '71, of Severna Park, MD, died January 13, 2007. She was a fiber artist, teacher, and award-winning floral designer. She had toured Europe with the Berea College Choir. She is survived by John Cullinane, her husband of 29 years.

Jennifer Smith, '75, of Louisville, KY, died December 26, 2006. She was a teacher at Jacob Elementary School in Jefferson County. She is survived by Sharon Brown, her life partner.

William Douglas Davidson, 76, of Grittenden, KY, died March 17, 2003.

Dr. Betty Anne King, 78, of Lancaster, KY, died December 7, 2006. She had recently relocated to Garrard County after a long career in extension work. She was an accomplished artist and marketed blended teas under the name of Bluebird Hill Farm.

1980s

Patrick H. Day, '85, of Dry Ridge, KY, died June 17, 2005. He was a former case worker for the Kentucky Department of Human Resources.

Faculty, Staff, & Trustees

Helen Elizabeth 'fiz" Dizney Menefee, '92, of Berea, KY, died January 15, 2007. She taught a wide variety of English literature and composition courses at Kirkwood Community College in Cedar Rapids, IA and taught courses at Eastern Kentucky University and Berea College. Liz is survived by Dr. Robert "Bob" Menefee, '40, her husband and retired Berea College professor.

Wilma Dykeman Stokley, of Asheville, NC, died December 22, 2006. She was an active speaker and wrote 18 novels and nonfiction books, which championed and chronicled the people of Appalachia and the land that shaped them. In 1969 Ms. Dykeman-Stokley was the first woman seated on the College Board of Trustees. She also taught classes at Berea.

Verdell Vaughn, of Berea, KY died November 19, 2006. She worked in the nursing department before transferring to the college relations department, and retired in 1986



Cx'52

Galen Martin, '51



Liz Menefee, '92



Wilma Dykeman Stokley

College Officers

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Kay Smith

Offers Scholarships and Encouragement

Kay Smith first learned about Berea College while she was a student enrolled at Sullins College in Virginia. During a convocation the Sullins president's wife mentioned Berea as one of those distinctive educational institutions that served Appalachia. "It just made such an impression on me," Kay says. "Here's a college that offers an education to those students who need it. I thought it was wonderful."

As a 'child of the depression,' Kay felt deeply grateful to her aunt and uncle who helped to provide her college education. An educator, Kay married Larry Smith, a man who was as passionate about education as she was. In fact, they supported several causes

together, and their support for Berea's students became a joint endeavor.

When Larry died in 1997, Kay memorialized his life in a way he would have appreciated - with a scholarship for a Berea College student. She established the E. Lawrence and Kathleen M. Smith Scholarship, which has now supported four different students. Because she wanted to get to know the recipients, Kay makes a special effort to communicate personally with those students who benefit from her scholarship endowment. "I have had a marvelous relationship with the students," she says. "I've enjoyed so much following and seeing their progress."

> Leah Devine, '06, a Smith Scholarship recipient, says keeping in touch with Kay was a privilege. Although they were decades apart in age and miles apart in distance, they share an interest in teaching. Kay offered Leah, "hope and inspiration as I entered the Spanish classroom here in Kentucky," Leah says. "I am thankful for the

opportunities we had to connect through our letters and cards over the years."





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Berea College Bookstore

Your destination for Berea College-related gifts, books, snacks, and wearables, including caps, T-shirts, and sweatshirts, is the Bookstore on College Square. Of particular interest is the special book corner with the works of Berea's faculty, staff, and alumni.

> Hours : M-F 8 a.m.-5 p.m., Sat 10 a.m.-4 p.m. Phone: 859.985.3197 www.berea.edu/bookstore/order.asp

Log House Craft Gallery -

No visit to Berea is complete without shopping at the Log House Craft Gallery, the premier showplace for Berea College and other high quality regional crafts. Fine student-made crafts including decorative and useful wooden items, pottery, brooms, ironwork, and hand-woven items are sure to please you and those on your gift-giving list.

Shop Hours: M-Sat 8 a.m.-7 p.m., Sun 1 p.m.-5 p.m. Phone: 859.985.3225 Browse the Crafts Catalog at www.berea.edu/studentcrafts/catalogs.asp



Visitors Center on College Square

The College Visitors Center offers free tours of Berea's historic campus. Covering three-quarters of a mile, the student-led tours visit notable campus structures. Tours of the Student Crafts program give visitors a close-up look at the areas where students work in broomcraft, weaving, woodcraft, and wrought iron, producing the handmade items sold in the Boone Tavern Hotel Gift Shop and the Log House Craft Gallery. The Visitors Center also has a theatre featuring videos describing Berea's historic mission and its contemporary applications. Brochures with helpful information are available to make your visit to Berea pleasant.

> Hours: M–F 9 a.m.–6 p.m., Sat 9 a.m.–5 p.m., Sun 2–4 p.m. Phone: 859-985-3145 http://www.berea.edu/visitorscenter/



łin Ambrose, '10



