UNCG HAS BEEN CLASSIFIED by the Carnegie Foundation for the Advancement of Teaching as a university with "high research activity" and this is certainly evident in the exceptional work of this year’s Excellence Professors, Olav Rueppell and Michael Parker. Rueppell views honeybees as a model of social evolution. He uses a variety of complex scientific approaches such as genetic analyses and bioinformatics as well as behavioral and physiological observations. But he is also known for making this complex research accessible, whether sharing his expertise with the Guilford County Beekeepers Association or with students through his role in UNCG’s Math-Bio Undergraduate Fellowship funded by the National Science Foundation.

Michael Parker’s work is equally impressive. The New York Times got it right when they reviewed his debut novel, “Hello Down There,” as “a serious, memorable novel that begins a very serious career.” Since then he has garnered critical acclaim for his multiple novels including the North Carolina Award for Literature in 2006 and a fellowship from the National Endowment for the Arts in 2004.

The rest of the issue reflects the same diversity and quality of research and creative activity at UNCG... running the gamut from Nick Oberlies’ use of “predator bacteria” in natural products to develop an anticancer drug to Elizabeth Perrill’s research and documentary film on South African ceramics.

UNCG was also designated by the Carnegie Foundation as a university strongly engaged as evidenced by the interdisciplinary work of David Ribar in language services to children in rural North Carolina or the work of graduate student Campbell’s work using real-time, two-way interactive videoconferencing to deliver speech-language services to children in rural North Carolina... running the gamut from Nick Oberlies’ use of “predator bacteria” in natural products to develop an anticancer drug to Elizabeth Perrill’s research and documentary film on South African ceramics.

Finally, this engagement is evident in the efforts of the Center for New North Carolinians, which builds bridges among immigrant populations and existing communities through outreach, research and immigrant and refugee leadership development, and through Alejandro Ratty’s Hop, Mozart™, which establishes a bridge between child composers and adults, hoping to foster greater interest and appreciation for music among young people.

While just a snapshot of the incredible work of our students and distinguished faculty, this issue truly captures the breadth and quality of research, innovation, and scholarly and creative activity at UNCG.

Terri Shelton, PhD
Interim Associate Provost for Research and Economic Development

For more information about research at UNCG and the Office of Research and Economic Development, go to www.uncg.edu/research.
### Stimulating research

**STIMULUS FUNDING MAKES A DIFFERENCE.** Just ask Dr. Raleigh Bailey, senior research scientist at the Center for New North Carolinians.

Bailey has worked with immigrants and refugees since 1982 and brought his skills to UNCG in 1997. This year his Asian-Corps Community Collaboration received $223,186 from the Corporation for National and Community Service. His goal — assist new arrival refugees in two Greensboro neighborhoods.

In these neighborhoods, Nepalese, Burmese, Congolese, Montagnards, Liberians and Iraqis receive help with his AmeriCorps Community Collaborative received $223,186 from the Corporation for National and Community Service.

They need to survive in this new environment.

**STIMULUS FUNDING MAKES A DIFFERENCE.** Just ask Dr. Raleigh Bailey, senior research scientist at the Center for New North Carolinians.

Other awards:

Dr. Cheryl Buehler (Human Development and Family Studies) and Dr. Marian O’Brien (School of Human Environmental Sciences and the Family Research Center) received $69,750 from National Institutes of Health for their project, **DIET INTERACTIONS**.

Dr. Michael Michlitch (Nutrition) received $201,630 from National Institutes of Health for his project, **Diet Interactions as a Subcontract from The University of North Carolina at Chapel Hill on an ARRA NSF award.**

Dr. Paul Knapp (Geography) received $161,002 from NSF for his project, **COLLABORATIVE RESEARCH: RURAL GROWTH RESPONSES AMONG NATIVELY-OCCLUDING WESTERN U.S. FARMERS UNDER CHANGING ENVIRONMENTAL CONDITIONS.**

Dr. Neil West (Biology) received $150,000 from the National Institute of Environmental Health Sciences for his project, **Dietary Interactions in School Children.**

Dr. Rick Borch (Geography) and the Center for Geographic Information Science received $296,002 from the North Carolina Rural Economic Development Center (US Department of Commerce funding) for his project, **MODEL AND TEST FIXED WIRELESS PROPAGATION MODELS FOR THE STATE OF NORTH CAROLINA.**

**The most important meal of the day**

The most important meal of the day?

May be no such thing as a free lunch, but for years Guilford County schools used government subsidies to provide universal free breakfast in schools where a significant percentage of student qualify for the program.

Towards the end of 2007, when the price of food in the United States began to creep upwards, Dr. Dave Ribar, professor of economics at UNCG’s Bryan School of Business and Economics, wondered how it would affect the universal free breakfast program.

“got in touch with school board members and said, ‘If there’s any way to avoid a complete elimination of this program, let’s go to USDA and see if we can get some money to study this.'”

Twenty-six of 70 schools had significant enough qualification to offer free breakfasts to every student until July 2008, when four schools lost the universal breakfast designation, one gained it, and one kept it.

“A concern was if more kids who qualify for it started taking advantage of this program, that the program would start operating under a deficit,” Ribar said.

Together with GCS and Dr. Lauren Himmelrich, UNCG associate professor of nutrition, Ribar secured a $250,000 USDA grant to determine the budgetary, academic and health effects of the program changes.

The study, Ribar said, has two phases. The first was to examine how the changes were implemented and subject each school to a case study. To get impressions of the program at each school, they observed breakfast service and interviewed parents.

As expected, Ribar said, participation fluctuated with the availability of free breakfast. And they were able to determine that the cost-cutting move did indeed result for the school system.

“One other thing we found in the focus group interviews,” Ribar said, “the parents that we talked to at the school that lost the program seemed to be a little grumpier. They expressed more dissatisfaction with the program. Parents at the school that switched to universal free breakfast expressed more satisfaction with the program. And the parents at schools that did not change were a little more neutral.”

Phase 2 is the impact analysis, examines how gaining or losing free breakfast programs affect attendance and test scores at the schools.

“The research would be to show whether these programs help kids, whether there are cost barriers to kids participating,” he said. “I’m more of a statistician, so I’m responsible for the quantification part. I’m really taking the lead on impact analysis.”

As Himmelrich puts the finishing touches on Phase 2, Ribar programs to crunch the numbers, a process that would wrap up sometime next fall.

“The research will be useful to researchers until after students take the test,” Ribar said.
America’s graying .... Older adults nationally are about 40 to 70 percent of the hospital population and 80 percent of home health patients. So, no matter where nurses work, unless it’s in pediatrics or obstetrics, they’ll be caring for older adults.” Dr. Beth Barba

Caring for older patients requires unique knowledge and skills. Most nurses have received little formal training in this. What they’ve learned, they’ve learned on the job, often by trial and error. There’s a lot to know. And Dr. Beth Barba in the School of Nursing, along with Dr. Anna Tech, is working to pass along the knowledge they need.

The Geriatric Workforce Enhancement Project, which was begun in 2003, provides geriatric education to nurses and interdisciplinary health professionals in underserved counties. It received additional funding in 2006 to assist a different part of the state. And last year, the project was funded a third time — again for more than $500,000 — this time to help nurses in the south central part of the state. During 2009-12, they are partnering with Greensboro Area Health Education Center and Catawba Geriatric Education Consortium.

In addition to enriching the curriculum of UNCG’s RN to BSN program, the program has partnered with a variety of hospital systems such as Mecklenburg Regional and Catawba Valley to enrich the staff’s geriatric know-how.

The first step is to train the trainers. “I teach the managers first and hope they’ll send their nurses.” If those nurses do that? “I encourage those nurses who take the 30 hours’ course to take teaching workshops — and teach what they’ve learned.” More than 12,000 health professionals have also taken training courses so far.

“Things could be easier for the nurses, if they understand how older adults present [health] problems differently.”

A patient’s apparent confusion could be dementia. Or it could be a sign of a urinary infection, she explained. Or it is because you didn’t speak loudly or deeply enough for them to understand? Soft, higher pitched voices are difficult to hear.

“Eyes yellow as they age. When you ask the patient if she took her yellow pills, can you be sure she did?”

Caring for older adults means using lots of critical thinking.

“Especially due to accumulation of ailments and chronic conditions and the medications they may be taking.” “You must investigate,” she said.

“If you’re a critical thinker, there’s the place for you.”

You should be proactive. “If you have 80 percent of patients over 65-70, you know there are going to be falls. Be prepared for this.”

And make the waiting rooms and hallways safer. As she said, “Wait seats that are easier to see is a good idea — no all-white bathroom. Use upholstery for chairs that contrasts with the carpeting. Put strips on stairs. Use no-glare lighting. Make larger signage.

More than 200 nurses at upscale retirement communities recently took part. She learns from her students. She has discovered that today’s 70-somethings are not like 70-somethings of earlier generations. They demand choices and more control. The Baby Boomers are aging, and health care will have to adapt.

“I’ve produced a lot of media,” she said, noting that 18 training modules are online. There are teaching manuals with DVDs. A course for managers of health care facilities. Preparation to become nationally certified. Next year, specific modules for areas with large African-American and Hispanic populations will be created.

It’s moved beyond North Carolina. Systems in Wyoming; and 11 nations are using the modules. And a half-dozen scholarly articles have already resulted, with a book chapter on the way.

Barba wishes society placed more emphasis on helping the old, instead of trying to appear younger. “Suppose we didn’t try to get rid of wrinkles? A wrinkled face reveals a life that’s been lived.”

Pilgrimages and progress

CHINA, WITH A FIFTH of the world’s population, is chang ing. It is looking outward, expanding its trade ties, while its government grows more tolerant of religious expression. But to understand modern China, you should first look to its history — to an earlier wave of globalization on the East Asian continent, starting in the eighth century. That wave set the conditions that would lead to the emergence of modern China as well as markedly Chinese forms of Buddhism, said Dr. Charles Orzech, professor of religious studies.

Orzech, who holds a Henry Luce Fellowship at the National Humanities Center, is working on a monograph titled "The Secrets of Three Mountains: Esoteric Buddhism in Continental Asia, 755-1275." He is the general editor of "Esoteric Buddhism and the Tang in East Asia," to be published this fall.

“When people think of China, they often think of walls,” but that isn’t an accurate image. “China was a cosmopolitan empire,” he explained. “In fact, there was a tremendous amount of trade, along the Silk Route to the Middle East as well as trade with India and Southeast Asia.”

The most widespread form of Buddhism a millennium ago was “Esoteric Buddhism," also called "Tantric Buddhism." With an emphasis on ritual and literacy and promise of a quick path to enlightenment, worldly power and success, governments across Asia were attracted to it. It is still prevalent in Tibet — it’s the Buddhism of the Dalai Lama.

But when most people today think of East Asian Buddhism, they think of Zen, which originated in China as Chan. (“Zen” is the Japanese pronunciation.) The rise of Chan from 950 through 1650 was a reaction to the cosmopolitan culture. The rejection of Esoteric Buddhism in China so effectively that most treatments of Chinese Buddhism barely mention it.

“My project,” said Orzech, “is to better understand the development of Chinese Buddhism and its influence in diplomatic exchanges. The Song government positioned itself as the definitive source of Buddhism teaching in East Asia. No everyone was impressed with the promotion of a kind of Buddhism that seemed so foreign. Some argued that only Chinese traditions such as Confucianism and Daoism were valid. This foreign Buddhism was the cause of what they saw as the decline of Chinese civilization. During the 11th century the government collected and printed the new "Chan" literature and gradually excluded Esoteric Buddhism and cosmopolitanism, embracing a more insular view.

Beyond textual evidence, a few pilgrimage sites where Buddhism was introduced help fill the gap.

“China is a land of pilgrimage,” Orzech told students. The sites show the remains of Esoteric Buddhism, long after its influence drained away.
Teachers already have intuitions about what content students have mastered. This model attempts to mimic this intuition so that therapists wouldn’t have to work so closely with each student to know what these students should work on next.” Dr. Bob Henson

Therapy at 300 miles

A fifth-grader listens intently as his speech-language pathologist reads a nonfiction book the boy has chosen. The boy answers questions posed by the therapist and soon will have to summarize the story in detail.

What makes this Therapy session unique is that the boy and his therapist are hundreds of miles apart. They are part of a TeleSpeech Therapy pilot program that allows speech-language pathologists to deliver services in such places.

Therapy has shown promise as an effective way to fill disturbing gaps in the treatment of students with disabilities, and delivering treatment that differs very little from on-site materials, student behavior and equipment.

Therapists at UNCG’s Speech and hearing Research Service, the journal of the American Speech-language-Hearing Association, has encouraged the use of TeleSpeech Therapy.

Public schools were already having a hard time filling vacancies in 2006, according to a survey conducted by the American Speech-Language-Hearing Association. It was a mini-validation,” Henson said. “It’s really encouraging to see growing interest in the use of these models.

Henson started his work in this field eight years ago, when this type of scoring model—which goes by the name of diagnostic classification models—began appearing on the scene. His work to develop these models and applications was supported by a National Science Foundation grant. He has also co-authored a book, “Diagnostic Assessment: Methods, Theory, and Applications.”

Now he is applying for another grant to create a tool that could be used with students. Their progress would be monitored over time, looking to see if the information gleaned from the tests and scored using these models eventually leads to improved scores.

In an ideal world, these tests would be used as benchmarks instead of what is currently in place. Henson envisions textbooks coming with a test bank. Math would be the easiest place to start.

Two years ago, Henson (along with Dr. Terry Ackerman, Deb Bartz and others) worked with algebra II teachers to test five skills. Their students consistently showed a lack of mastery of two of the five areas. It made sense— they hadn’t covered these areas yet.

“It was a mini-validation,” Henson said. “It’s really encouraging to see growing interest in the use of these models. Coupled with improved computer power, and the potential of these models will continue to grow.”

Putting scoring to the test

If you’re the parent of a school-aged child, you know all about tests. Benchmarking tests. End-of-course tests. End-of-year tests.

Then’s no getting around them. But Dr. Bob Henson, in the educational research methodology department in the School of Education, is creating new scoring models that will help make the information more relevant to teachers.

Traditionally in education one usually tried to get a single score,” he said. “This method of scoring abandons that and assigns students a profile of what they have mastered or not.”

That, in turn, is helpful for teachers as they hope in on areas where individual students need more work.

For example, a math test may have problems in addition, subtraction, multiplication and division. The score of that test would be a total score to what degree you know math, Henson had. “As an alternative, scoring the test to provide a profile might be more helpful because the test would say the student has mastered addition and subtraction but needs help with multiplication and division.”

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An interdisciplinary team of UNCG researchers, including nutrition faculty member Dr. Cheryl Lovey and her students, has found that nursing mothers can reduce their bone density loss through exercise, a finding that one day could help protect against osteoporosis.

The team, led by Lovey and Dr. Laurie Wideman, an associate professor of kinesiology, found that lactating women who exercised during a 16-week span lost 4.8 percent of bone density in their lower spines, while women who didn’t exercise lost 7 percent.

“To see such a dramatic difference in such a short time was surprising,” Lovey said. “We are repeating the study with more mothers and measuring their bone density a year after they give birth.”

Mothers normally lose bone density during lactation, when they are transferring about 200 milligrams of calcium per day from their own bones to breast milk. They typically regain that density when breastfeeding ends.

Lovey and Wideman want to know whether mothers who reduce density loss through exercise still gain as much density after weaning their babies as women who don’t exercise. If so, exercise could offer a way for mothers to actually increase their bone density from pre-lactation levels and reduce their risk of osteoporosis after menopause.

Funded by the N.C. Agricultural Research Service, the study tracked 20 women — 10 who exercised and 10 who did not — during the period from four to 20 weeks after delivery. The women in the exercise group did both resistance and cardiovascular exercises three times per week. The researchers attributed the reduced density loss to the resistance training, which targeted the lower back during 20-25 minute sessions in the women’s homes with exercise balls, elastic bands and hand weights.

“Obviously if you’ve just had a baby, you can’t work out the way that you would without a baby,” said Wideman. “This was training anyone can do in their house, and we still found these significant changes. It was a great finding.”

The research team included nutrition graduate students Melanie Bopp, Heather Mackie and Heather Colleen. Bopp has since earned her doctorate, and Mackie has received her master’s degree. Colleen plans to graduate with her PhD in May.

Not surprisingly, the study found other benefits of exercise for new moms. The women who exercised increased their threshold for pain and their composition, lowering body fat and increasing muscle mass, even without changes in diet.

The results of the study were published in the October issue of Medicine & Science in Sports & Exercise, the journal of the American College of Sports Medicine.

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The story teller

Research Excellence Award winner Michael Parker explores the human condition — and the impulse of desire — through works of fiction. These themes arose various incarnations in his four widely acclaimed novels, including “Hello Down There,” which was a New York Times Notable Book of the Year and a finalist for the PEN/Hemingway award. His fifth novel is forthcoming from Algonquin Books in 2011. His work has appeared in such magazines and anthologies as The New York Times and The O. Henry Prize Stories. He is a contributor writing to the Oxford American. Since 1993, he has taught creative writing and literature in the Department of English and the MFA Writing Program.

FACT AND FICTION: My latest book is a historical novel called "Off Island," and it's about the Outer Banks. There are two parts to the story. One is about Theodosia Burr and the legend that she was shipwrecked and turned up on the Outer Banks. That part goes back and forth between the early 1800s and 1900s. The more contemporary part is about the last three people who live on an island along the Outer Banks.

THE PLOT THICKENS: The latter came from a story I wrote called "Off Island." But I had written that story about Theodosia Burr because years and years ago I read "Legends of the Outer Banks" to my daughter and thought the legend about her was interesting. There's a whole story about her portrait, which turned up in a woman's home in Nags Head, and she gave it to a doctor from Elizabeth City for some medical expenses. It turned out that the doctor had built the house I lived in when I lived in Elizabeth City. So there are all these connections. And then I mentioned it to this woman I used to date, and she said Theodosia Burr was her great-great-great-grandmother. So I said, I have to write this.

BRIGHT IDEAS: Finding ideas has to do with paying attention. There's a vigilance you must have to be alert to listen for stories and be on the lookout for something that might work. After you've been doing it for a while, you sort of train yourself to be aware of the stories that people are telling with the possibility that something may come from it that you can use. You always have to be aware of the fact that as citizens of the world we all contradict ourselves a lot of different things all mixed up and fighting against each other. We all have desires and that's what characters are made of. But there has to be some balance. There has to be some thing to make you pull for the person.

GOOD CHARACTER: My essential notion of character is that in order to be interesting, the character has to have one desire that is in conflict with what they say or their actions don't necessarily jibe with their internal thoughts. So I think to make critical characters you always have to be aware of the fact that as citizens of the world we all contradict ourselves daily. If the character is going to be interesting to the reader, then it can't be all one thing but a lot of different things all mixed up and fighting against each other. We all have desires and that's what characters are made of. But there has to be some balance. There has to be something to make you pull for the person.

FACE THE NATION: I understand the need for book signings, but frankly I am much happier sitting in my study and leaving the marketing strategy to other people. I don't necessarily jibe with their internal thoughts. So I think to make characters you always have to be aware of the fact that as citizens of the world we all contradict ourselves daily. If the character is going to be interesting to the reader, then it can't be all one thing but a lot of different things all mixed up and fighting against each other. We all have desires and that's what characters are made of. But there has to be some balance. There has to be something to make you pull for the person.

A GREAT STORY: If anyone ever says to you "that" would make a great story, then you can't use it. It's the worst thing someone can say. If I don't come to it on my own, it's unusable. Also, I only need to know very little because I'm not writing the truth — I'm writing fiction. I have to bring my own imagination to bear on that image.

THE BEES’ KEEPER

Junior Research Excellence Award winner Dr. Olaf Rüppell is fascinated with social insects — especially honeybees — because of the complexity and wonder of their societies. He researches the life history of honeybees to understand the evolution of behavioral development, reproductive traits and the aging process. With the recent decimation of the bee populations, he also examines potential health factors contributing to this disorder. He joined the faculty in 2003 and is an associate professor in the Department of Biology.

FIRST THINGS FIRST: I was born and raised in Germany. I got my doctorate from the University of Wuerzburg. For my postdoctoral research, I decided to go to the University of California, Davis. That was partly a career decision and partly a family decision because I had just married my wife, Dr. Matina Kalosmis-Rüppell, who was a postdoc at UC Berkeley. She is also a biologist in the biology department here.

SOCIAL WORK: In my research, I try to explain through what mechanisms honeybees have evolved sociality. Compared to other animals, they have an added layer of complexity to cooperate and share a common goal in the colony. But they do different tasks. So there’s a division of labor, not only between the queen and the workers, but some workers do one task and others do another task. How is it that one worker does one task and another worker does another task? Those are the questions I am trying to answer at the genetic, genomic and individual level.

THE AGING PROCESS: And I am interested in the consequences that social evolution has for life history. How does living in a group affect how an organism ages? We know an individual’s schedule for reproduction shapes its mortality schedule in solitary species. In individual bees that don’t reproduce, some other forces of natural selection optimize their life history. They can either live longer or shorter. In contrast, the queen reproduces, but she only reproduces. So that’s also a unique set of parameters or predictions that we can think about that are exceptions to the general rules and patterns of aging.

COLONY COLLAPSE DISORDER: Lately, my research has taken a turn toward the applied side as well. Honeybees have been declining since 1940 — by around 50 percent — but the very rapid, recent decline of honeybees is being termed Colony Collapse Disorder. So I’ve tried to look at some health issues more recently such as sublethal effects of pesticides on intestinal stem cells. These are cell populations in the guts of honeybees that actively replicate. We are trying to see the effects pesticides have on these replicating stem cells that are not apparent in immediately dying honeybees but still affect their health.

THAI BEES: I am addressing another health issue and that’s a parasitic mite, Varroa, which serves as a vector for a lot of diseases. In Thailand we are studying native honeybees to investigate the evolution of their natural resistance mechanisms against Varroa mites, one of the principal causes of the ongoing health problems of our American honeybees. The Thai bees are uniquely suited for this study because they have co-existed with these mites for many thousands of years and therefore evolved to resist them.

FIELD WORK: The specific goal of this year’s research was to investigate whether the postulated local resistances existed, or we transferred mites from the south of Thailand to the north of Thailand and exchanged brood and mites between these colonies. The evaluation of the results from that is ongoing. If we find what we predicted, then we will use the next two years to follow up on that with a genetic investigation into the mechanism writing sentences. This is a USDA-funded, collaborative project with me as the principal investigator and a co-investigator from the University of Kansas, and several Thai colleagues from multiple universities.

COME TOGETHER: I am very much a collaborative person, also in my research. I think when people come together from different backgrounds there’s the most progress. A lot of contemporary science is collaborative in nature, especially at the genomic scale. But we should move forward in whatever way is suitable to give us insight into this wonderful world of ours.
The ugliest stuff found on the forest floor may be just the place to find leads for the next generation of medicines.

If you’ve ever come across a rotting log in the woods, you probably thought ouch and sidestepped it. For Dr. Nicholas Oberlies, however, that log doesn’t represent decomposition, decay and death. It could hold a potentially life-giving key in the fight against cancer.

Oberlies, a newly hired associate professor in the Department of Chemistry and Biochemistry, is a self-described “natural products guy” — a chemist who looks for bioactive compounds that come directly from nature and have specific pharmaceutical value. He worked for 11 years at the Research Triangle Institute (RTI) in Raleigh with Dr. Monroe Wall and Dr. Mansukhlal Wani, natural products gurus who made waves in the pharmaceutical industry with their discoveries of the anticancer drugs taxol and camptothecin.

The same type of filamentous fungi that decomposes a forest log can be broken down in the lab, above, and tested for its ability to make compounds that attack cancer cells.
The search for anticancer drugs is Oberlies’ holy grail as well. Funded by a grant from the National Cancer Institute, he and his research team are testing filamentous fungi — the cottony white stuff that decays logs and other vegetation — for new anticancer drug leads.

“People ask why I study fungi,” says Oberlies, a youthful 40-year-old with geek-chic glasses and a schoolboy thicket of dark hair. “There are at least one to two million fungi specimens in the world, and only a tiny fraction has been studied for drug discovery.”

In other words, he’s in a wide-open fungi frontier.

Another huge plus is that one of the world’s largest libraries of fungal specimens (yep, such a thing exists) lies down the road in Hillsborough. His collaborators at Mycosynthetix, Inc., maintain 55,000 types of fungi from around the world; they’ve been tested for use as antibiotics, anti- flu medication, herbicides and insecticides. But note, before Oberlies’ research began, had been tested for cancer-fighting properties.

Oberlies exudes energy and enthusiasm, necessary traits in a field deemed too slow, too risky and too unprofitable by major-league drug companies like Eli Lilly and Pfizer. He cites impressive statistics to back up his mission: 65 percent of anticancer drugs and antibiotics are derived from natural products (think penicillin, from Penicillium fungi). Twenty-five percent of drugs in any phar-

macy come from natural products.

“Some people say, ‘Stop with all these facts. It’s a fishing expedition,’” Oberlies says. “Well, I don’t know—I like to fish. And if it is a fishing expedition, I can’t tell you what kind of fish we’re going to catch, but I can tell you that we will catch a fish.”

The metaphorical fishing expedition begins with a fungal specimen that has been grown in a flask. Oberlies’ team makes an extract of the fungus, each extract contains anywhere from 100 to 1,000 different compounds. Their goal is not to isolate everything the fungus produces but to focus on those things that kill cancer cells.

A collaborating research team at North Carolina Central University tests the extracts for activity against a panel of cancer cell lines. Last year, Oberlies estimates, they tested 200-300 fungal specimens. Ninety-five percent of the extracts turn out to be inactive; the other 5 percent are progressed to the next stage. The extracts, which

At left, Dr. Nick Oberlies stands in one of the world’s largest libraries of fungal specimens, Mycosynthetix, located in Hillsborough, collects specimens from all over the world. Above right, Oberlies and Dr. Cedric Pearce of Mycosynthetix look at a tray full of fungal samples. Opposite page: When Oberlies first gets the samples they can look a bit like the picture at the bottom. The first step of processing involves extracting the organism with solvents, pictured above.

start out looking brown and gunky; go through many rounds of chromatography, which eventually purify it into single compounds. At each stage of purification, the fractions are retested for bioactivity. Only compounds that show activity move on to the next stage.

“In the early stages, we’re looking to see if we can kill cancer in a general sense,” Oberlies explains. “As we move on, we see if we can target more specific cancers, such as leukemias, breast cancers or prostate cancers.”

He offers a tour through the lab in the Sullivan Science Building — actually two adjoining laboratories — whose staff includes two of his former researchers from RTI, a newly hired postdoctoral researcher and three UNCG graduate students. “I’m incredibly thankful that my researchers agreed to join me on this move, as they really keep the work churning. They’re the ones on the front lines doing the research. I’m just the guy sitting here writ-

ting papers and grants.”

Offering a beaker full of fungus to his guest, Oberlies says, “We get all different kinds of colors. This one looks like maggots.” He points to several others. “This looks like hot chocolate. Some people say this one looks like mucus. If you pull the cover off, some smell really good and some smell like dirty socks. If they (the fungi) are good chemists — good at making colors and smells — we hope they’re also good at making compounds that kill cancer cells.”

Oberlies became interested in natural products chemistry in 1992, after he read an article about taxol in a chemistry trade maga-

zine. The story told how Monroe Wall and Mansukhlal Wani discovered the compound, which comes from the bark of the Pacific yew, in 1971; two decades later it hit the market as a Bristol-Myers Squibb product. Taxol has since had a huge impact on breast and ovarian cancer, greatly increasing the odds of survival for patients.

At the time, Oberlies was a senior majoring in chemistry at

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“I feel thankful that these (UNCG) students are **BOLD AND CRAZY** enough to want to come work on this. That’s what it’s going to take — another **GENERATION** to pass along the knowledge.”

Miami University. He took the article to his advisor, a gruff fellow who always called him by his last name. “Well, Oberlies,” he said, “this is one of those areas of science there’s always going to be a need for, but it’s never going to be a flashy kind of thing.” Undeterred, Oberlies applied to Purdue University’s School of Pharmacy, which had a strong natural products bent at the time. He spent five years there, earning a PhD in medicinal chemistry and pharmacognosy in 1997. Shortly thereafter he was offered the chance to work for his heroes, Wall and Wani, at RTI. It was a no-brainer. “The greatest decision I ever made as a scientist was to go work for them. They were the Batman and Robin of natural products. Wall (who passed away in 2002) was 79 when I joined. He had no ego left. He never said it to me, but he knew he wasn’t going to be around forever and was looking for a young apprentice to take over. I learned a lot of scientific things from them, but I also learned a lot about relationships, collaboration, writing grants and all the things that aren’t formally taught in grad school but are so important for successful science.” The connection continues today: Wani, who retired from RTI in 2007, is now an adjunct professor in the Department of Chemistry and Biochemistry at UNCG. He often lectures on the success and potential pitfalls of his and Wall’s discoveries.

Oberlies counts himself among a handful of natural products folks. He worries about the longevity of the field and feels a responsibility to train rising generations — a big reason why he left RTI for academia. In particular, UNCG’s PhD program in medicinal biochemistry, started in 2008, drew him to the university. As the program’s natural products expert, he’ll be involving students in research and teaching one course per semester: a survey of natural products chemistry this spring and, next fall, a class on determining the molecular structures of compounds. “I feel thankful that these students are bold and crazy enough to want to come work on this. That’s what it’s going to take — another generation to pass along the knowledge.”

Rather surprisingly for a science guy, Oberlies brings a quasi-spiritual outlook to the lab. For him, the work has an almost mystical quality, far different from the calculated science of making synthetic drugs. “For most of us in the field, it’s a little bit of a religion thing. You have to have faith that you’re going to find something.” Sometimes faith is rewarded. The National Cancer Institute is currently testing a compound Oberlies’ team isolated from a filamentous fungus. If the compound passes in vitro tests at the NCI, the next step would be testing it on lab animals, then partnering with a pharmaceutical company to move it through clinical trials.

Oberlies is extremely cautious when it comes to this potential good news. “The National Cancer Institute testing might sound like a big deal, but they test tens of thousands of compounds a year. It’s an exciting new compound and it has good activity, but it’s really too new to talk about.”

If this turns out to be an unsuccessful fishing expedition, Oberlies isn’t worried. There are plenty more fish in the sea, and he plans to devote the rest of his life to wielding the pole and casting the net. “I can tell you that fifteen hundred people will die in the United States today of cancer. And tomorrow fifteen hundred people will die of cancer. So there’s still plenty of research to do. And let me tell you, I wouldn’t come to work every day if I didn’t think we were going to find something someday that will kill the heck out of cancer.”
As a young man growing up in India, Rakesh Babu walked away from his first computer training class convinced that he could never put such technology to any good use.

Babu had begun losing his eyesight to a degenerative disease that attacks the retina and couldn’t conceptualize the components described by the teacher. “He was talking about the buttons, the icons, the menus. I had never touched a computer in my life and I was totally lost,” he recalled. “I thought, if this is what I’m going to deal with in using a computer, then forget it. If you can’t see it, you can’t do it.”

Now 37 years old and a doctoral student in the Department of Information Systems and Operations Management (ISOM), Babu’s research centers on how to make the internet more accessible to people just like him.

He long ago mastered the basics of computer technology, thanks to the support of his family, the discovery of screen-reader software programs, and a move to the United States that transformed the world as he knew it.

But Babu said visually-impaired people are second-class citizens when it comes to web accessibility and usability. Because the internet is sight-centered by design, they constantly get tripped up on tasks a sighted user would consider routine: taking a test on Blackboard (a widely-used learning application), doing research on the internet, shopping online, even something as seemingly simple as conversing with friends on Facebook.

His life’s work is devoted to changing that.

MENTAL MODELS
“People like me don’t like free rides,” Babu explained. “We really appreciate it when people understand our strengths, our abilities, and trust us to contribute in some way or another. It gives us a sense of satisfaction, a sense of belonging to society.”

Babu’s research focuses on understanding the problems blind people encounter in today’s internet-centric society and removing those obstacles so they can enjoy equal opportunities in life.

Those who have worked with Babu on the project, dubbed “The Mind of the Blind on the Web,” are impressed by his intellect and passion. “Given that he is legally blind and he experiences this on a daily basis, it certainly is very close to his heart to find ways to improve it,” said Dr. Lakshmi S. Iyer, director of the ISOM PhD program.

“I’m ashamed to say that I wasn’t really aware of the challenges visually-impaired internet users might have before Rakesh enrolled in my seminar class.”

When Rakesh Babu logs into Blackboard (a learning application that UNCG and many other universities use to deliver course content), a mechanical voice reads the page to him in this way. It goes fast, and it’s difficult to understand where the content starts. Babu’s research will help web developers understand the special needs, challenges and strategies of the visually impaired.
“I want to educate the world. I feel myself privileged that I am in this position,” he said. “I am blind and I go through the same experiences as 314 million other people around the world with visual impairments and have the ability to communicate with the world about their problem.”

The first step in a systematic approach to address the problem was to understand how the visually impaired conceptualize online tasks. Scott research had examined the experiences of the blind on the web, so that’s what Babu and his adviser, Dr. Rahul Singh, set out to do.

“One of the first things I learned is how little I know about this,” Singh said. “We wanted to understand what they are thinking, literally, what is in their mind and what they do with it.”

Employing a method called “verbal protocol analysis,” the team asked blind users to spontaneously verbalize their thoughts while performing common internet tasks aided by screen-reader software.

After recording the verbalizations and transcribing them, Babu broke them into single units of thought with help from Singh. Then they developed “mental models” — abstract entities that the mind constructs to organize knowledge about objects, events and activities.

“Where do blind people get stuck? How do they work around it? Very few researchers have looked at this problem from the user’s point of view,” Babu explained.

“The set of mental models we develop in this research helps us identify and clearly understand the special needs, challenges and strategies of the visually impaired in web interactions.”

That tells us it is a skill, a coping mechanism, that blind people can develop,” he added. “This is the resource that we have so far totally ignored, that we can help the blind by studying the blind.”

But perhaps the most startling finding: 700 violations of web design standards on Blackboard, that widely-used learning application.

“We wanted Blackboard would be compliant with all laws and standards. And guess what? We found it is worse than any random web site,” Babu said.

When blind participants took a test on Blackboard, for example, they unintentionally skipped questions by moving the cursor off the navigation bar.

“These people’s performance in a quiz is dependant on their accessibility to this environment. All schools use learning systems like Blackboard,” he said. “We were startled by the extent of the problem. It is so serious that people cannot finish their coursework because of the bad design.”

Babu soon will detail these findings in his dissertation. But his work will be far from done.

Because technology constantly evolves and changes, Babu and Singh believe this research also must be a continuing process.

“We wanted to make it as practical and useful as we could. The utility is a long-term utility...,” Singh said. “If we invented for today, it’s already obsolete. So that work is ongoing and hopefully will continue to be. We’ve failed if we’ve stopped.”

A $100,000 research grant from the National Science Foundation has helped cover the expenses of their research thus far. And they recently applied for a $1 million grant from the Department of Education to create training programs that improve blind students’ functional skills in online education. They also plan another project on non-visual interaction with technology in collaboration with research organizations, universities and software industries in the U.S., Europe and India.

Ultimately, Babu and Singh hope to establish a research organization to continue their work and serve as a watchdog group, so that, as technology evolves, awareness of the challenges that technology poses for the blind evolves with it.

“Right now, the visually-impaired community is marginalized. They are not independent. They rely on help from sighted people — you know, free rides,” Babu explained.

“But if we make the web accessible and usable, they can do these tasks independently and contribute to society as equal members of society.”
“It is in the production of audiences that the political and social reality of art can be found.” — John Fiske, 1989

When Dr. Elizabeth Perrill was an undergraduate student at Iowa’s Grinnell College, she realized she had never studied Africa in high school or college. While many of us might have “Googled” the continent until we satisfied our curiosity, the UNCG assistant professor of African art history enrolled in an independent study program in Zimbabwe. When the program required an internship, she “badgered the front desk at the National Gallery of Zimbabwe for like three weeks,” she admits. “And I got it.” Although the political climate in Zimbabwe grew too menacing for Perrill to return once her independent study ended, her fascination with the continent endured. So she applied the same determination and

The end of apartheid in South Africa has led to the expansion of markets for its traditionally based and contemporary ceramics. African art historian Elizabeth Perrill spent two years exploring the changing cultural realities of Zulu ceramicists — and the legacies and lifelines of their prized pottery.

BY MARY BEST ’94, ’99 MA
PHOTOGRAPHY BY ELIZABETH PERRILL

“In Zulu hands

Below, Thembi Nala works on a narrative pot. Her themes range from the importance of natural ecosystems, impacted by AIDS, the commemoration of 10 years of South African democracy and Zulu ceremonies such as the reed dance. At right, Peni Magumbi Mhlangwa strains sorghum beer at her homestead in the Tudevane area.

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In Zulu hands

spirit of adventure to Zimbabwe’s neighbor to the south — South Africa — and the rest is, well, African art history.

The seeds of Perrill’s affinity took root when — still an undergraduate — she studied Zulu at the University of KwaZulu-Natal in Durban. While working on her dissertation at Indiana University, she returned to South Africa for nearly two years to earn her academic wings exploring the complex world of contemporary Zulu ceramics in KwaZulu-Natal, the country’s easternmost province, through a refreshing blend of “life-history” interviews and conventional avenues of research. Her travels have been funded by such prestigious grants and fellowships as UNCG’s New Faculty Research Grant, a Social Science Research Council International Dissertation Research Fellowship, and a U.S. Department of Education Fulbright-Hays Doctoral Dissertation Research Fellowship. The Iowa native has continued to delve into Zulu ceramics since joining the UNCG art department fresh out of graduate school in 2008. Currently, she is completing a book-length manuscript, “Zulu Surfaced and Form: The Aesthetics of South African Ceramic Economies.”

Fluent in isiZulu, Perrill has dedicated much of the past five years to studying beer pots, a cultural signature of the Zulu people, South Africa’s largest ethnic group. In their purest form, the buried, spherical vessels are used to brew; store and carry love- alcohol, sorghum beer that is served to one’s ancestors during spiritual ceremonies. Because these iconic vessels embody Zulu hospitality and identity, Perrill says, “they are an excellent art form to help highlight how contemporary cultural and spiritual practices are being valued by young artists and still used in rural areas.”

Traditionally considered a woman’s medium, pots are made from local clay and handcrafted using a meticulous technique called coiling in which sections of clay are rolled into thin, long coils and then stacked and bonded together. After the pots are symmetrically shaped, they are decorated, polished, dried, pit-fired and blackened. In recent years, ceramicists have introduced more colorful and innovative embellishments to the historically rough-hewn containers, enhancing their monetary and cultural worth on the country’s contemporary arts scene and bolstering their step onto the world stage of collectors, curators and even interior designers.

SIDE EFFECTS

In part, the genius of Perrill’s research rises from detailed interviews with Zulu artists. Having conducted more than 100 interviews with artists, gallery owners, collectors and museum professionals — and drawing extensively from a core of 35 ceramicists — Perrill presents a layered perspective of the lives and tribulations of Zulu artists, especially in a geographic area with limited infrastructure in the years following apartheid. Something as seemingly straightforward as transporting ceramic pottery, for example, can be costly and frustrating. Because the walls of the pots are masterfully thin, they are very fragile, expensive to ship and cumbersome to carry on public transportation, which many artists use.

Even more troubling for Perrill is the realization of the vulnerability of rural female artists. Two women she knew were shot, one by a boyfriend and the other allegedly on a family member’s order. One lived, the other died; no one has been prosecuted for either crime. One of her interviewees was killed in a road accident; two younger members of one family died when a wall collapsed while digging for clay because they didn’t have the proper equipment to remove the topsoil.

“I realize how poverty and access to the law are important in rural women’s lives,” Perrill says. “South Africa has one of the highest crime rates in the world but the fact that it manifests itself in people’s lives — no matter what kind of quiet existence they are leading — is shocking.”

CLAY ON DISPLAY

The commercial market, as well, can be a precarious place. Since the world’s appetite for Zulu art — and its profit potential — has grown since the end of apartheid in 1994, “artists are increasingly expected to be salespeople, cultural interpreters and aesthetic connoisseurs in their own right,” Perrill says. That’s why her knowledge of African art hasn’t ended at the academy gates; rather, wearing the hat of an advocate, she uses her expertise to help ceramicists gain recognition and sharpen their business acumen.

As a tribute to the community of artists with whom she worked, Perrill developed the expansive catalog and touring exhibition “Umncwobonisa: In Bloom — Contemporary Zulu Ceramics,” which was featured at the African Art Centre in Durban, the Faulconer Gallery at Grinnell, the Indiana University Art Museum in Bloomington, and most recently, UNCG’s Gatewood Gallery in late 2009. Literally, the title refers to the luster created after a pot is burnished; metaphorically, it alludes to the opportunity for participating artists to shine. The UNCG exhibition opening included a 25-minute documentary that Perrill produced. She plans to release it on DVD later this year. For the show in Durban, all exhibition texts and catalog entries were written in Zulu and English to ensure the 26 South
African artists whose ceramics were shown could read the descriptions. Also, Perrill organized a business skills workshop held in conjunction with the exhibition’s opening to educate artists about the commercial art market.

Efforts such as these help make the playing field less foreign, especially for those living in rural areas, often without running water or electricity, and who are often inexperienced sellers of their work. “That’s the part that’s difficult,” she says, “because it tends to lead to problems of exploitation of the artist. They are not very literate in English so they are hesitant to sign contracts. Galleries end up buying work upfront at a one-time price but then the artist doesn’t have any recourse if that pot is sold for a hundred times more. The ethical relationships between buyers and sellers are fraught with problems.”

Working with galleries and artists, Perrill tries not to land on either side of the fault line by defining her role as a provider of information. “My role is to give information back and forth. I say this upfront to all the artists, ‘I am not a dealer and will not sell your work for you. All I can do is give you the names of all the galleries I have ever heard of and warn you that you have to watch out for yourself.’ I explain some of the international norms, but add, ‘what you do with that information is up to you.’”

ON THE INSIDE
For Perrill, living in the trenches has its benefits. Having befriended many of the artists, she has been introduced to aspects of Zulu culture that many art historians don’t see. Perrill’s view doesn’t get any more inside: She is often an overnight guest in the homes of rural Zulu families, and when her parents visited, her hosts welcomed them as well.

One of her most meaningful experiences in South Africa came when she was invited to a spiritual ceremony in honor of the deceased grandfather of Clive Sithole, a renowned ceramicist who uses imagery — such as cattle, the Zulu symbol for a man’s wealth — to convey his masculinity through a traditional woman’s art form. The gathering was held to help lead his grandfather’s spirit home so he could advise his family. “In Zulu culture, when someone honors an ancestor, they slaughter an animal, such as a cow or goat, and prepare it for the guests,” Perrill explains. “Clive said his pots are his cattle because if he sells two pots, he can buy a cow. It was very touching to have one of the artists I work with so interested in having me come to a personal ceremony.”

Elizabeth Perrill presents a copy of the “Ukucwebeza: To Shine” exhibition catalogue to Mamile Ngema, a retired potter with 50 years’ experience. She came out of retirement to create a single work for the exhibition, demonstrating an older style.

Arts and letters
Exploring Zulu culture and gender identity has led Elizabeth Perrill’s core scholarship in a variety of directions. Here’s a trio of recently completed and upcoming works:

Perrill is one of two UNCG faculty members nominated by an internal committee to receive a National Endowment for the Humanities grant. If she is selected, she plans to further her examination of contemporary Zulu ceramics by traveling to South Africa this summer. The recipient will be announced this spring.

In February, Perrill presented her latest research, “Discursive Gender Across Media: South African Masculinity in Rubber and Clay,” at the College Art Association 98th Annual Conference in Chicago. The paper compares and contrasts how two South African artists, potter Clive Sithole and Nicholas Hlobo, who works mostly in rubber, express a more complicated and subtle masculinity in art.

Every child is an artist. The problem is how to remain an artist once we grow up. — Pablo Picasso

You see it in their faces, these kids with music in their heads. They’re onstage with an orchestra, and they hear for the first time the piece they had originally composed on a piano, a violin or with their own voice, singing it a bit nasally or even off-key. Professional musicians play it. And when they do, you see those kids no older than 12 smile, stir in their seats or grow wide-eyed like an old cartoon.

Then there’s the girl in New Mexico. She walked off-stage and fell into a heap on the floor, her hands covering her face. A music teacher ran over to her to see if she was OK. She was. The little girl simply looked up, and with eyes teeming with emotion, she blurted out something the music teacher will always remember.

“I can’t believe that I helped create that beautiful music!” the little girl screamed.

Alejandro Rutty loves those moments. He helped make them happen.

Rutty, an assistant professor of composition at UNCG, created this project eight years ago in which child composers 12 years of age and younger work with student and professional arrangers as well as orchestras to turn their idea into a big-sounding piece. It all becomes part of a CD, full of kid-composed tunes with titles like “17 Flying Horses,” “Picture Day,” “Black Polar Bear” and “Playful Puppies.”

It’s all deceptively simple. But that’s just the beginning.

Rutty’s project helps foster an appreciation of classical music at a young age and begins to broaden an audience for orchestras at a time when they need help in filling their halls.

But moreso, it does something for the kids. Talk to them about it, and they’ll use words like “life-changing” and “pretty fun.” They gain confidence and realize composition is not limited to what Rutty calls the “Big Masters” from the past, the ones children see as grim-faced and staid in books.

Nepo, kids realize they can do it themselves. And that is the beauty.

Rutty has named his project, appropriately enough, after the famous 18th century composer who really created his first piece when he was just 5: Wolfgang Amadeus Mozart. The name: the Hey, Mozart! Child Composer Project.

It started in 2002 when Rutty taught at a small college in New York in the foothills of the Catskill Mountains. Since then, Hey, Mozart! has spread to New Mexico where volunteers canvas the state, just to find kid composers in such far-flung places with names like Silver City, Clovis and Fort Sumner.

And now, Hey, Mozart! has been picked by the Organization of American States, the world’s oldest regional organization, as a way to help underprivileged children throughout Latin America and the Caribbean reach their musical potential.

OAS is calling the Hey, Mozart! project “From The Barrio to the Concert Hall.”

Now, you might think Rutty came up with the idea in class. Just watch him teach.

He’s playful and energetic, an Argentine native who stands 5-foot-6. He comes into class with disheveled hair and talks with his hands and sometimes stretches out his vowels, turning a word like “close” into “clooooose.”

And when one of his colleagues comes in, Rutty will throw out a joke. Something like this: “All the Latin people. You know we are aaaaaaaaall the same.”

But ask Rutty where Hey, Mozart! came from, and he’ll talk about Buenos Aires, his hometown. In his mind, he’ll see himself as a 13-year-old, standing in the shower, hearing a tune in his head and having no way to get it down.
That always frustrated him. He wanted to invent, like writing a story. But he couldn’t. He couldn’t read music. And as he went through high education, fine-tuning his dream of becoming a composer, he always remembered that.

And that’s where Hey, Mozart! came from, at a time when Rutty was just a teenager who dreamed in music notes. “It’s like Paul McCartney with a guitar,” says Rutty, a 42-year-old married father of 3-year-old twins. “Some guy with a symphony background, he’s a Come in and say ‘Put strings here’ or ‘Put horns there,’ but essentially it’s Paul McCartney’s vibe.”

“And that’s what’s really fantastic. Every professional who works with children shows them how music is done, but it’s really a partnership and everyone produces a piece of the work.

“There’s no hierarchy. No top down. A 12-year-old can come in with an accomplished piece in the style of Bach, but a 6-year-old will come in and just hum a beautiful tune, and that 6-year-old will get picked.

“It doesn’t reward technical training. It rewards a child’s natural musical inventiveness.”

Like with Jocelyn Boyack. She’s 9, the youngest of six. She lives in Albuquerque, N.M., and she’s has been involved in Hey, Mozart! program for the last three years.

She has composed on her violin tunes she has titled “Joyful Mozart!” “17 Flying Horses” and “Swans Are Swimming.” Auburn Rocker.

“He (Rutty) has an audience, he sees the value in his creation, and we’re going to help support him by providing that to the people.”

And Goble believes there’s a market for that. Anyone interested licenses Hey, Mozart! through UNCG. So far, Hey, Mozart! has made less than $5,000, says Lisa Goble, the director of UNCG’s Office of Technology Transfer. But it’s just getting started, and when you hear from student composers like Ethan Cypress or arrangers like Eric Bridges, you get an idea of what Hey, Mozart! could be.

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Eric Bridges gets that. He’s 20, a UNCG junior from Asheville majoring in composition.

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Two years ago, Rutty recruited Bridges to arrange “Playful Puppies,” a 30-second piano piece composed by Jasmine Kennedy, a 9-year-old from Santa Fe, N.M. “Playful Puppies” is very sing-song. But Bridges found it to be tough because it was so short and so simple. So he had to use all of his education to stretch out Jasmine’s tune as well as keep its integrity intact.

It worked for Jasmine. And it worked for Bridges, too. “You know, everybody seems to look at composition like a big daunting idea that only geniuses from the 19th century can do.”

Bridges says. “But this (Hey, Mozart!) shows anybody from 6 to 78 can write something workable and a nice-to-listen-to melody.”

Like “Black Polar Bear.” That’s from 12-year-old Brendan Aldridge from Velarde, N.M. It’s a short tune that Brendan sings slightly off-key and includes his line, “I am here to poison the land! All fighters will be crushed in my hands.”

And his chorus? “Beavers! Beavers! I am the black polar bear!”

Art Steinberg arranged it. He has been teaching in Albuquerque’s public school system for 34 years. “You can just imagine being in their shoes,” Steinberg says. “It’s like taking a little painting and having it flashed onto a big screen in a big mural. I can’t give you any insight into the long range effect, but that one day, to see that kid smile is tremendous.”

UNCG sees the potential in Hey, Mozart! Rutty is working with UNCG’s Office of Technology Transfer to help take his project worldwide and make a little money for himself, his department as well as the university.

Anyone interested licenses Hey, Mozart! through UNCG. So far, Hey, Mozart! has made less than $5,000, says Lisa Goble, the director of UNCG’s Office of Technology Transfer.

But it’s just getting started, and when you hear from student composers like Ethan Cypress or arrangers like Eric Bridges, you get an idea of what Hey, Mozart! could be.

“There’s so much innovation going on here (at UNCG) that it’s not even funny, and Hey, Mozart! is an example of what goes on,” Goble says.

“It’s not a medical development or a widget, but it’s a way of teaching children music and showing how they can be composers by plunking out little tunes and hearing them turned into amazing pieces of music.”

And Goble believes there’s a market for that. “He (Rutty) has an audience, he sees the value in his creation, and we’re going to help support him by providing that to the people of the world.”

And to think, Rutty got the idea as a teenager. Standing in the shower. Hearing a tune. And knowing he couldn’t get it down. “I mean, a better composer.”

That’s from 12-year-old Brendan Aldridge from Velarde, N.M. It’s a short tune that Brendan sings slightly off-key and includes his line, “I am here to poison the land! All fighters will be crushed in my hands.”

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Naming the nameless

THE 1860 U.S. CENSUS registered the names of slave owners and the age and gender of slaves. But there, as in much of the historical record, slaves are nameless.

More than 83,000 slaves are now more than a number. Details of their lives — and the institution of slavery — have been unearthed during 18 years of research by Dr. Loren Schweninger. Those records are now compiled into the Digital Library on American Slavery.

“It’s among the most specific and detailed databases and web sites dealing with slavery in the U.S. between the Revolutionary War and the Civil War,” said Schweninger, the Elizabeth Rosenfeld Excellence Professor in History. “There’s no web site like this, either in extent or content. The amount of information in here to be mined is enormous.”

Schweninger knows the value of conducting research from primary sources, something he learned from his mentor, the late Dr. John Hope Franklin. The stories he found in legal records were often not preserved anywhere else. “This was info that was not tapped,” he said. “Very few scholars had gone to county courts.”

Schweninger collected petitions filed in county courts and state legislatures that covered a wide range of legal issues, including wills, divorce proceedings, punishment of runaway slaves, calls for abolition, property disputes and more. He visited about 160 county courthouses in the South and 15 state archives between 1991 and 1995. “The first three years, I was on the road 540 days,” he said.

Margarette Rose Howell, senior associate editor, worked on the project for 11 years and was responsible for entering tens of thousands of slave names and connecting them with their own family members as well as their owners. Nicole Mazgaj, associate editor, worked on the project for seven years and focused her analysis on the rich documentary evidence from parish court houses in Louisiana.

The library includes petitions by more than 2,500 slaves and free blacks who sought redress for numerous causes. For example, George Sears of Randolph County, a blacksmith and free man of color, purchased his slave wife Tillah for $300. He then petitioned the North Carolina General Assembly in 1838 to emancipate his wife and daughters.

A number of the petitions also speak to how slaves fought their enslavement, providing details of slaves who ran away, burned down plantations or plotted to murder slave owners.

In some cases, whites petitioned for free blacks to be allowed to remain in the state, citing their value to the community. In others, a few black petitioners were allowed to be returned to slavery so that they could be with loved ones who were slaves.

“The archive is check-full of information detailing the personal life of slaves,” Mazgaj said. “It’s probably about the most detailed that you’ll find.” Visit the site at http://library.uncg.edu/slavery.

Giant ‘Steps’

Everyday Life and the ‘Reconstruction’ of Soviet Russia During and After the Great Patriotic War, 1943-1947

Dr. Jeff Jones

Western scholars gained an unprecedented look into the inner workings of the Soviet Union when the Iron Curtain fell in the 1980s. One was Dr. Jeff Jones, an associate professor of history, who has turned his research on the Soviet Union’s rebuilding after World War II into his first book, “Everyday Life and the ‘Reconstruction’ of Soviet Russia During and After the Great Patriotic War, 1943-1946.”

Jones focused his research on the city of Rostov-on-Don, using it as a case study on how the nation worked to rebuild after the war. He argues that there was division between the Communist Party elite and the Soviet working classes. “Even though they claimed to be a ‘Worker’s State,’ I didn’t find that to be the case,” Jones said. “If you look, the workers weren’t happy at all.”

Many regular citizens were critical of the government, according to informants’ reports found in party archives. Communist complainers centered around bad living standards, unfavorable working conditions, food scarcity and the lack of political and personal freedoms.

The informant reports, called “svodki,” give scholarly critical insights into the thoughts and feelings of everyday Russians during a time when citizens weren’t able to freely voice their sentiments.

Much of Jones’ research was conducted during the mid-1980s, a period of academic acumen for Russian scholars. The former Soviet Union allowed access to historical and archival material in the years immediately following the fall of Communism, but more recently has begun to restrict access to those materials again, closing off that history to the world.

While the old Soviet Union is no more, any insights into the history of the country and its people are still important, Jones said. It’s such a major historical entity for so long. Post-Soviet Russia — the region as a whole — is still greatly affected by the Soviet legacy.

And that has ramifications for the world.”

A Movement Without Marches

Dr. Lisa Levenson

The University of North Carolina Press (300 pp.)

March has been written about the rise of urban poverty in the 1950s and 1960s, decades considered to be the roots of the current problems in U.S. inner cities. But most of it has been written from a male perspective.

Dr. Lisa Levenson, an assistant professor of history, reframes the experience of urban poverty through the lens of women in “A Movement Without Marches.”

Her findings challenge the popular notion that poverty is inspired by devastation, homelessness and exile. Poverty — they were not lazy, they were not irresponsible, chronic poverty. “Poor women did not cause their own poverty; they were not lazy, they were not irresponsible,” Levenson said. “These women were datapointed to be emasculated and marginalized as they strove to create better lives for themselves, and especially for their children.”

Set in post-World War II Philadelphia, the book explores the hardships black women faced. All women expected to hold jobs, Levenson said.

“Many of these women, even if there was a job available, they couldn’t get the job because they had children and lacked child care,” she explained. “Women of that time had job problems. Many were victims of domestic violence.”

Levenson focused her research on Philadelphia after finding a rich documentary history of women’s struggles. “I found sources that allowed me to tell a detailed story, one that centers on the experiences of women not as victims but as actors,” she said. “They participated in shaping the history of the period.”

A landmark work by a pioneer of modern dance, “Steps in the Street” is inspired by devastation, homelessness and exile, themes readily grasped by dancers and performance artists. “That accessibility is critical,” Jones said.

“You probably didn’t see dance before. We want you to be able to come in and let that be an element,” said Cyrus, a dancer in the Graham Company from 1981-87. “Transcendental dance is in itself an intertext where you can be too distant from the general population. Graham, particularly ‘Steps in the Street’ is accessible.”

The dancing music was another factor in his choice. “The music by Wallingford Riegger is so dynamic and sweeping. Just listening to it without the dance you get taken up by the music,” said the dancer in our interview. “The dancing in our repertoire to work with such expressively rich music. I know you will put all along with their movement.”

In this summer, Cyrus resurrected the dance, including attending classes at the Martha Graham Center in New York City. During the fall, he taught Graham’s techniques and history to dance majors and held auditions for the cost.

During the spring semester, he guided rehearsals, performances and outreach, including presentations to dance appreciation and dance history students about “Steps” and Graham, Elizabeth Aizpiri, a principal dancer with the Martha Graham Dance Company 1993-2009, came to UNC for a week in February to instruct students. This summer, Cyrus will complete a DVD and other summary materials about the project.

Cyrus is a founder and director of Cyrus Art Production, an organization that produces dance and theater in unique and thought-provoking cultural events. In addition to the Martha Graham Dance Company, he has performed with Alvin Ailey American Dance Theater, “The Lion King” (original London cast) and “Circus” (U.S. tour) as well as directed domestic and international tours with Cyrus Art Production.
The interior world of Thomas Day

THE FURNITURE OF THOMAS DAY HAS long been celebrated for its craftsmanship and artistry. His mantels, staircase newel posts and other interior woodwork, however, have generally been regarded as a minor sideline. With the May release of "Thomas Day: Master Craftsman and Free Man of Color," a book co-written by professor of interior architecture Jo Ramsay Leimenstoll and her research — which examines Obama’s “dreams from My father,” Hughes’s “The big Sea,” Wright’s “black boy” and X’s “The Autobiography of Malcolm X” — was prompted by a classroom query. While teaching an African-American literature course, a student asked Green, “Why were so many of these black male writers abandoned by their fathers?”

“One question pulls this together: What is the impact on black men when their fathers are absent?” said Green. “It’s quite significant, but it’s not debilitating. It doesn’t mean life is over for them, that they’re ‘at risk’ or that they have a target on them.”

Instead, Green discovered that the men folded into the arms of their community to define their identities without their fathers’ influence. “A father’s absence makes it necessary for the son to find a plane of belonging and to connect with other males in the community who can teach him cultural practices that may be thought of as distinctly black and male,” Green writes in the book. Her research — which examines Obama’s “Dreams from My Father,” Hughes’s “The Big Sea,” Wright’s “Black Boy” and X’s “The Autobiography of Malcolm X” — was prompted by a classroom query. While teaching at UNC Press, the book is being released May 22, just a day before the Day exhibit opens at the N.C. Museum of History, where the book’s co-author, Patricia Phillips, is being released May 22, just a day before the Day exhibit opens at the N.C. Museum of History, where the book’s co-author, Patricia Phillips, is being released May 22, just a day before the Day exhibit opens at the N.C. Museum of History, where the book’s co-author, Patricia Phillips, is being released May 22, just a day before the Day exhibit opens at the N.C. Museum of History, where the book’s co-author, Patricia Phillips, is being released May 22, just a day before the Day exhibit opens at the N.C. Museum of History, where the book’s co-author, Patricia Phillips, is being released May 22, just a day before the Day exhibit opens at the N.C. Museum of History, where the book’s co-author, Patricia Phillips,
For centuries South African ceramicists have created pots to be used in ancestral ceremonies. Now, their pots are gaining attention as works of art in their own right. Art historian Dr. Elizabeth Perrill has spent years studying the changing cultural realities of South Africa’s contemporary ceramicists. Read more about this research on page 20.