unce research Research, Scholarship and Creative Activity spring 2010

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VOLUME 8

SPRING 2010 •

UNCG Research is published by The Office of Research and Economic Development The University of North Carolina at Greensboro PO Box 26170 Greensboro NC 27402-6170 336.256.0426

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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 a partner with the community. Defined as "the collaboration between institutions of higher education and their larger communities for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity," UNCG faculty and students are actively engaged in bringing their expertise to a myriad of issues in the community ... whether it's the work of Cheryl Lovelady on how exercise can protect the bones of nursing mothers or the work of Jen Kimbrough addressing low health literacy through education and best practice dissemination. It's evident in the innovative use of technology in Michael Campbell's work using real-time, two-way interactive videoconferencing to deliver speechlanguage services to children in rural North Carolina or the work of graduate student Rakesh Babu, who is seeking solutions to increase internet access for individuals with visual impairments. The scope and challenge of these issues increasingly require the expertise of more than one perspective as exemplified by the interdisciplinary work of David Ribar in economics and Lauren Haldeman in nutrition studying the negative effects of eliminating free breakfast programs in Guilford County schools.

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 Rutty's Hey, Mozart!™, which establishes a bridge between child composers and adults, helping 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.

8 Research excellence 2009 Michael Parker explores the human condition through works of fiction. Olav Rueppell studies social insects, especially honeybees.

Dirty, rotten science The ugliest stuff found on the 10 forest floor may be just the place to find leads for the next generation of medicines.

Mind of the blind Rakesh Babu is working to make 16 the internet more accessible to people just like him.

In Zulu hands African art historian Elizabeth Perrill 20 explores the changing cultural realities of Zulu ceramicists and the legacies and lifelines of their prized pottery.

26 Child's play The melody filling a child's imagination becomes a fully orchestrated symphony of sounds.





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up&coming



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 AmeriCorps Community Collaborative received \$223,186 from the Corporation for National and Community Service. Its goal — assist new arrival refugees in two Greensboro neighborhoods.

In these neighborhoods, Nepalese, Burmese, Congolese, Montagnards, Liberians and Iragis receive help with English language acquisition, after-school tutoring, community gardening and other skills to give them the tools they need to survive in this new environment.

"It's a tough economy," Bailey said. "Before we received this funding, some didn't have enough to eat. Now learning to ride the bus to the food pantry or grow vegetables in the community garden helps significantly."

> Stimulus funding, from the American Recovery and Reinvestment Act, is also supporting at least nine more research projects at UNCG. As of mid-January, UNCG faculty and researchers had received awards totaling \$1,694,665.

Other awards:

Dr. Cheryl Buehler (Human Development and Family Studies) and Dr. Marion O'Brien (School of Human Environmental Sciences and the Family Research Center) received \$69,750 from National Institutes of Health for their project, MOTHERS' PART-TIME EMPLOYMENT.

Dr. Michael McIntosh (Nutrition) received two NIH National Institute of Diabetes, Digestive, and Kidney awards. One is a summer undergraduate research experience supplement for \$19,656. The second is for his project, **RESISTANCE AND DELIPIDATION IN HUMAN ADIPOCYTES, for \$39,000.**

Dr. Stan Faeth (Biology) and Dr. Nadja Cech (Chemistry and Biochemistry) received a National Science Foundation award of \$615,971 for their project, THE ECOLOGICAL CONSEQUENCES OF HYBRIDIZATION OF

Dr. Nicholas Oberlies (Chemistry and Biochemistry) received \$93,018 for MECHANISMS UNDERLYING DRUG-DIET INTERACTIONS as a subcontract from The University of North Carolina at Chapel Hill on an ARRA NSF award.

Dr. Paul Knapp (Geography) received \$160,002 from NSF for his project, COLLABORATIVE RESEARCH: RADIAL **GROWTH RESPONSES AMONG NATURALLY-OCCURRING WESTERN U.S. CONIFERS UNDER CHANGING ENVIRONMENTAL CONDITIONS.**

Dr. Bei Wu (Gerontology) received \$59,288 from NIH's National Institute for Dental and Craniofacial Research for her project, ORAL HEALTH DISPARITIES AMONG ELDERS WITH AND WITHOUT COGNITIVE IMPAIRMENTS.

Dr. Sandra Shultz (Kinesiology) received \$155,102 from NIH's National Institute of Arthritis and Musculoskeletal and Skin Diseases for her project, HORMONE MEDIATED KNEE JOINT LAXITY AND NEUROMECHANICS.

Dr. Rick Bunch (Geography) and the Center for Geographic Information Science received \$259,692 from the North Carolina Rural Economic Development Center (US Department of Commerce funding) for his project, MOBILE AND FIXED WIRELESS PROPAGATION MODELING FOR THE STATE OF NORTH CAROLINA.

The most important meal of the day



HERE MAY BE NO SUCH THING as a free lunch, but for years Guilford County schools used government subsidies to provide universal free breakfasts in schools where a significant percentage of students gualified 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.

> "I 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 gualification to offer free breakfasts to every student until July 2008, when four schools lost the universal breakfast designation, one gained it and 23 kept it.

"A concern was if more kids who qualified for it started taking advan-

Graduate assistant Sara Himmelrich, inset above, observes and takes notes on a Guilford County Schools breakfast service.

tage of this program, that the program would start operating under a deficit," **Ribar said**

Together with GCS and Dr. Lauren Haldeman, 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 cut costs 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 II, the impact analysis,

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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 quantitative part. I'm really taking the lead on impact analysis."

As Haldeman puts the finishing touches on Phase I, Ribar prepares to crunch the numbers, a process that should wrap up sometime next fall.

researchers until about a year after students take the test," Ribar said.

"Test scores are not available to

A mission of understanding

Where is the nearest emergency room? When it comes to blood pressure, how high is too high? What kind of doctor treats a foot rash? What, exactly, do antibiotics do?

For many in Guilford County the answers to these questions and even the questions themselves - can be elusive.

"It's difficult to understand a lot of the pragmatic side," said Jen Kimbrough, section chair for the Community Health division of the UNCG Center for Youth, Family and Community Partnerships. "A lot of the work we do is with folks who are immigrants and refugees. They have language barriers and education barriers and I'm-ina-whole-new-country-and-I-don't-know-how-the-system-works barriers. On the other side of that same coin, there are plenty of people born and raised here who don't understand how the system works."

Kimbrough's division of the CYFCP deals with health literacy, and its mission is not only to provide consumers with the information they need to successfully navigate the healthcare system, but to work with the supply side as well.

"There's a couple of layers to the work we're doing," she said. "We're doing one on healthcare consumers to help them understand issues and to advocate for better healthcare communication so that if they have questions they can feel free to ask them. Another layer to that cake is working with healthcare professionals so that their communication is cleaner and more easily understood. And that layer has sublayers: professionals, providers, places where healthcare is delivered and whether or not those systems provide good, clear healthcare information. It sounds pretty simple to say 'health literacy' but it's actually a pretty deep and broad problem."

Right now the Community Health division is finishing up a statewide assessment of pharmacies - the facilities, print materials, medicine labels and communication patterns - and a similar study concerning North Carolina's hospitals.

Last year they completed a survey of diabetic patients, assessing their knowledge of treatment, symptoms and even diabetes itself. Among the findings was a reinforcement of the notion that people prefer their information to be explained simply and clearly.

"The low-literacy print materials were the best," Kimbrough said. "They learned more, they liked them better. And that kind of points to what we're advocating. All health literature should be available in a low-literacy format. There's no reason health materials need to be written at a grad-student level."

So there is the research, and then there is the dissemination of that research at Head Start centers, immigrant apartment communities, churches and other community access points.

"We teach classes on what to do when your child gets sick or how to take care of your teeth or what to expect in your senior years," Kimbrough said.

Her group has also started health literacy coalitions around the state — four of them so far — and speaks to adult education and English as a Second Language classes.

"The urgency is tremendous when you talk about folks who are in that high-risk category," she said. "You get a prescription from a doctor and it said to take the pill once a day — 'once' looks [in Spanish] like once, which is 11 pills a day."

therightidea

The graying zone

" America's graving 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. Anita Tesh, 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 Carolina 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 Moses Cone, Alamance Regional and Catawba Valley to enrich the staffs' 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 from 40 counties have taken training courses so far. Exponentially more have benefited.

"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 is it 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, toilet seats that are easier to see is a good idea — no all-white bathrooms. 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."

Helping homeless children

WHILE THEIR CLASSMATES are concentrating on lessons, homeless students often are worrving about their next meal or where their family will spend the night. The number of students without stable housing has climbed sharply in recent years due to rising unemployment and foreclosures.

The National Center for Homeless Education (NCHE), part of UNCG's SERVE Center, is helping meet the educational challenges posed by homelessness.

Thanks to a new \$4 million contract with the U.S. Department of Education. NCHE will continue to do so for the next five years.

Established in 1998. NCHE is a national clearinghouse of information and a technical assistance provider for educators, legislators and families. Its work is more important than ever.

School districts reported almost 800,000 homeless students during the 2007-08 school year. That

number has likely grown to more than a million, experts say, due to the current economic and foreclosure crises. Homelessness figures include families living in shelters, in cars, on the street, in campgrounds, in motels and, most frequently, doubled up in the homes of other families.

Children in homeless families often end up switching schools, and their education suffers. "High mobility is always a challenge," said Diana

Pilgrimages and progress





CHINA, WITH A FIFTH of the world's population, is changing. 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 East Asia, 755-1279." He is the general editor of "Esoteric Buddhism and the Tantras 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

Bowman, NCHE's director, "When children move from one school to another, they experience educational disruption and lose ground academically. When you have a child who moves two or three times in a year. you have a child who is far behind."

It is not unusual for homeless children to attend 10 different schools in the course of their basic education, she said. That makes it difficult for teachers to integrate these children into the classroom. Learning



Dr. Charles Orzech, surrounded by temple images he photographed while doing research in China.

amount of trade, along the Silk Route to the Middle East as well as trade with India and Southeast Asia."

The most widespread, influential form of Buddhism a millennium ago was "Esoteric Buddhism," also called "Tantric Buddhism." With an emphasis on ritual and liturgy and promises 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 1050 was a reaction to the cosmopolitan culture. The rejection erased 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 role today by recovering the conditions that gave rise to it."

How did Esoteric Buddhism ever become popular there? In the 10th century, after decades of warfare, the Song dynasty unified China. The new government's legitimacy hinged partly on being the bearers of Chinese civilization, but much of Chinese literary, historical and religious heritage had been lost. To collect their history destroyed during warfare, they sent groups to India to find "Esoteric" Buddhist scripture and translate it.

It was then distributed to monasteries and given as gifts in diplomatic exchanges. The Song government positioned itself as the definitive source of Buddhist teaching in East Asia.

Not everyone was happy with the promotion of a kind of Buddhism that seemed so foreign. Some argued that only Chinese traditions such as Confucianism and Daoism were suitable. 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 turned away from Esoteric Buddhism and cosmopolitanism, embracing a more insular view.

Beyond textual evidence, a few pilgrimage sites where Esoteric Buddhism was important still exist.

"They are like bathtub rings," Orzech tells students. The sites show the remains of Esoteric Buddhism, long after its influence drained away.

disabilities may go undiagnosed and untreated. Families without stable housing often struggle with other basics, like adequate food, clothing and medical care, not to mention the emotional and social tolls. Part of what the center tries to do is educate school districts and families about relevant federal laws, primarily the McKinney-Vento Homeless Education Assistance Act. One provision of the law gives students the right to remain at the same school

where they started, even if they have moved to another school zone or district due to homelessness.

Staying at the same school provides students with badly needed stability, but can add to transportation costs for cash-strapped school districts.

In addition to compiling reports, creating educational materials such as posters, and providing training at state and national conferences, NCHE also operates a toll-free helpline.

Putting scoring to the test

" Teachers already have intuitions about what content students have mastered. This model attempts to mimic this intuition so that teachers wouldn't have to work so closely with each student to know what these students should work on next." Dr. Bob Henson

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.

There'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, we 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 hone 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 say to what degree you know math, Henson said. "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."

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 test that could be used with students. Their progress would be monitored over time, looking to see if the information gleaned from the test scores 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 lack of mastery in two of the five areas. It made sense — they hadn't covered those areas yet.

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

A fifth-grader listens intently as his speech-language pathologist reads from 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 at UNCG to help children in eastern North Carolina via videoconferencing.

The program has been supported in part by a \$67,000 Congressionally-directed grant from the U.S. Department of Education.

In some parts of North Carolina, particularly rural areas, school districts are struggling to hire qualified speech-language pathologists. TeleSpeech Therapy has shown promise as an effective way to deliver services in such places.

"TeleSpeech has provided on-target services for our students." a school administrator wrote in a program evaluation. "Through videoconferencing, rural school districts are able to service students with limited personnel resources."

Therapists at UNCG's Speech and Hearing Program, directed by Michael Campbell, sit in front of a high-definition camera at Gateway University Research Park with an array of materials and peripheral devices. The students face similar cameras and a 38-inch television monitor that allows the students to see the speech-language pathologists.

The pilot program is working with rural school districts in Perquimans and Northampton counties. and delivering treatment that differs very little from face-to-face sessions. A paraprofessional escorts the children to and from therapy and helps manage the on-site materials, student behavior and equipment. TeleSpeech Therapy could help deal with a rising demand for services. The U.S. Department of Labor has predicted an 11 percent increase between 2006 and 2016 in the number of jobs for speechlanguage pathologists.

Public schools were already having a hard time filling vacancies in 2006, according to a survey conducted by the American Speech-Language-Hearing Association, which has endorsed the use of TeleSpeech Therapy when distance, impaired mobility or a lack of specialists creates a barrier to services.

The response to the pilot program, now in its second year, has been positive. Parents, teachers and school administrators indicated a high level of satisfaction in a survey administered last year.

Students have been even more encouraging. A first-grader asked the paraprofessional if she could watch "TeleSpeech Therapy" on her TV at home. Another student asked if his treatment sessions could be increased from twice per week to every day.

Lovely bones

An interdisciplinary team of UNCG researchers, including nutrition faculty member Dr. Cheryl Lovelady 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 Lovelady 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," Lovelady said. "We are repeating the study with more women 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 stores to breast milk. They typically regain that density when breastfeeding ends.

Lovelady 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-delivery 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 Colleran. Bopp has since earned her doctorate, and Mackie has received her master's degree. Colleran 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 strength and improved their body 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.

Grainne O'Higg<mark>ins tracks Ka</mark>tie Magruder's progress as she walks on the treadmill. An interdisciplinary team of UNCG researchers has found that nursing mothers can reduce their bone density loss through exercise.

research**excellence**



The story teller

Research Excellence Award winner **Michael Parker** explores the human condition — and the impulses of desire — through works of fiction. These themes assume 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 contributing writer 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 1980. 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 also written this other piece 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.

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.

GOOD CHARACTER: My essential notion of character is that in order to be interesting, the character has to have one desire that is conflicted 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 some-thing 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 writing sentences. There's a whole new generation out there who have web sites and are on Twitter and Facebook and find endless ways of getting their name out there. That's the way everything has gone. There's absolutely nothing wrong with working it, and I can see the obvious results of it. On the other hand, I'm not that interested in the writer — I am interested in the book. I think you can separate the two.

The bees' keeper

Junior Research Excellence Award winner **Dr. Olav Rueppell** is fascinated with social insects — especially honeybees — because of the complexity and orderliness 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 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 Kalcounis-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 those 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, so 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 with a genetic investigation into the mechanisms of this resistance. This is a USDA-funded, collaborative project with me as the principal investigator and a co-PI from the University of Kansas, and several Thai colleagues from multiple universities.

COME TOGETHER: I am very much of 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.

BY MARY SEYMOUR PHOTOGRAPHY BY DAVID WILSON, STAFF PHOTOGRAPHER

If you've ever come across a rotting log in the woods, you probably thought **110** and sidestepped it. For Dr. Nicholas Oberlies, however,

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.

ROTTEN SCIENCE

that log doesn't represent decomposition, decay and death. It could hold a potentially life-giving key in the fight against cancer.



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 natural products. In the plant world, which is four times smaller, about 25 percent have already 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 (yup, 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 none, 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 iffy and too unprofitable by majorleague 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 pharmacy 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 writing 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 magazine. 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

"We get all different kinds of colors. This one looks like **Maggots**. 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**."





"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."



before processing.

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." 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 prod-Rather surprisingly for a science guy, Oberlies brings a quasi-spiructs. Wall (who passed away in 2002) was 79 when I joined. He itual outlook to the lab. For him, the work has an almost mystical had no ego left. He never said it to me, but he knew he wasn't quality, far different from the calculated science of making syngoing to be around forever and was looking for a young apprenthetic drugs. "For most of us in the field, it's a little bit of a religion tice to take over. I learned a lot of scientific things from them, but I thing. You have to have faith that you're going to find something." Sometimes faith is rewarded. The National Cancer Institute is also learned a lot about relationships, collaboration, writing grants and all the things that aren't formally taught in grad school but currently testing a compound Oberlies' team isolated from a filaare so important for successful science." The connection continmentous fungus. If the compound passes in vitro tests at the NCI, ues today: Wani, who retired from RTI in 2007, is now an adjunct the next step would be testing it on lab animals, then partnering professor in the Department of Chemistry and Biochemistry at with a pharmaceutical company to move it through clinical trials. UNCG. He often lectures on the success and potential pitfalls of Oberlies is extremely cautious when it comes to this potential his and Wall's discoveries. good news. "The National Cancer Institute testing might sound

Oberlies counts himself among a handful of natural prodlike a big deal, but they test tens of thousands of compounds a uct folks. He worries about the longevity of the field and feels a year. It's an exciting new compound and it has good activity, but responsibility to train rising generations - a big reason why he left it's really too new to talk about." RTI for academia. In particular, UNCG's PhD program in medici-If this turns out to be an unsuccessful fishing expedition, Oberlies nal biochemistry, started in 2008, drew him to the university. As the isn't worried. There are plenty more fish in the sea, and he plans to program's natural products expert, he'll be involving students in 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 research and teaching one course per semester: a survey of natural products chemistry this spring and, next fall, a class on determin-United States today of cancer. And tomorrow fifteen hundred peoing the molecular structures of compounds. "I feel thankful that ple will die of cancer. So there's still plenty of research to do. And these students are bold and crazy enough to want to come work let me tell you, I wouldn't come to work every day if I didn't think on this. That's what it's going to take - another generation to pass we were going to find something someday that will kill the heck along the knowledge." out of cancer."

Mind of the blind

BY BETSI ROBINSON PHOTOGRAPHY BY DAVID WILSON, STAFF PHOTOGRAPHER

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."

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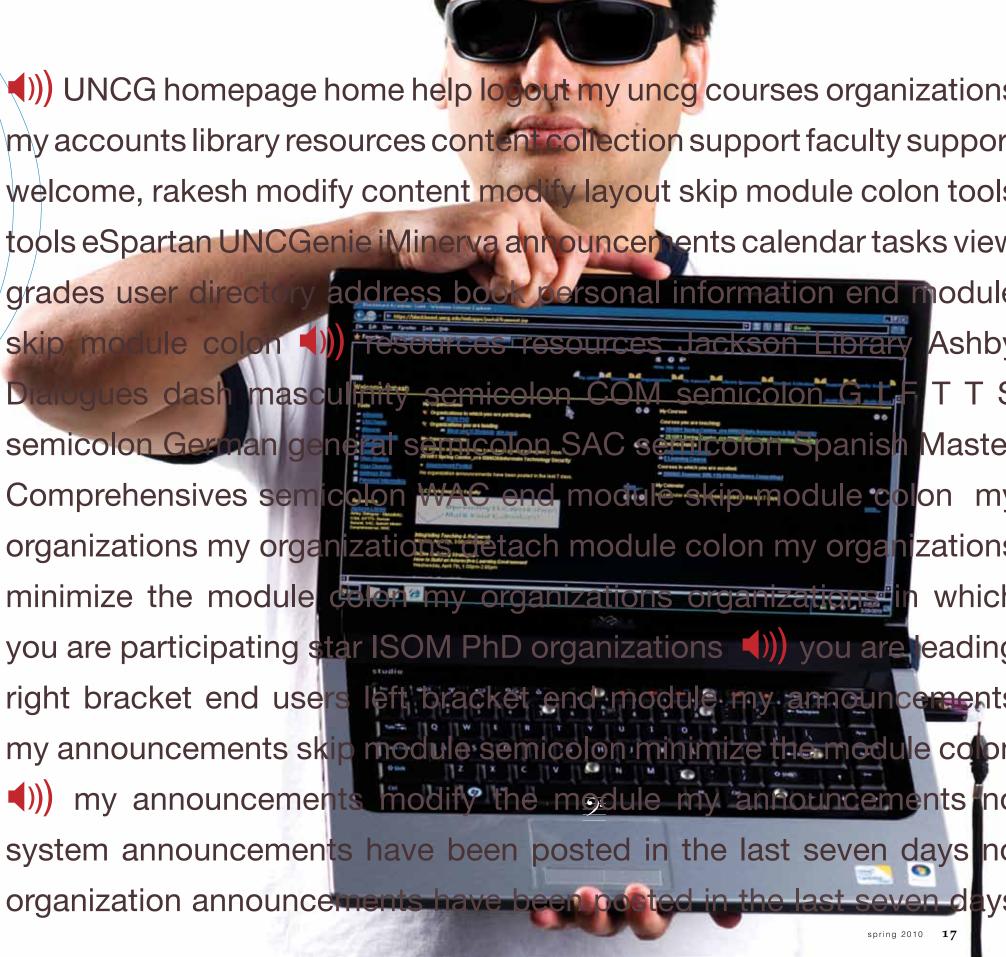
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Motivation is the key to any research, Babu said.

"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. Scant 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 blind 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."

His goal: to improve the experience of blind people using technology, so they won't face the kinds of frustrations they currently do.

LEARNING FROM EXPERIENCE

"Everywhere you turn, the internet is there - education, shopping, communicating with friends, dating somebody," he said. "You have to have the ability to use it effectively — not just





Above left, Rakesh Babu is reflected in the screen of his laptop. Above right, stickers help Babu locate the correct position of his fingers on the keyboard. Below, the sentinel key which unlocks the screen reader for his laptop.

access it, but use it effectively - in order to become equal members of society."

That's something Babu has personally struggled with since age 10, when his eyesight began to deteriorate. By 23, while working on a master's degree in chemistry in India, his mother and friends had to read the textbooks to him.

"I realized that now I am unable to read and I couldn't advance my career. I started looking at all the things that I can't do," Babu recalled. "When I was growing up, I never thought about my strengths. I thought, my vision is deteriorating, there are so many things I cannot do. My mother said, 'You can't just give up.' "

A turning point came in 2000, when Babu's younger sister,

Sushreeta, read an article about a computer technology that reads text. She suggested he buy it.

Babu's mother, Madhuri, learned basic computing and then taught her son how to use the keyboard.

"I was always very pessimistic about my vision and my future. My mother was never pessimistic," Babu recalled. "She and my sister kind of gave me the ultimatum. These were the two people who I valued a lot."

Sushreeta, who by that time had married and moved to Detroit, encouraged her brother to apply to a graduate program in management information systems at Central Michigan University.

Babu's move to the U.S. opened a new world to him - the vast resources and support of the Services for the Blind in Michigan. Babu jokingly referred to his counselor as "Santa Claus" because, he said, "I would open my mouth and he would get me whatever I wanted."

"It was a huge, huge change. The technology at my disposal made me so confident ... screen magnifying software, a scanner so that any book I needed I could scan onto Microsoft Word, a largescreen, closed-circuit TV with inverse background option," Babu said.

"Suddenly for me, the sky was the limit. I could compete with all the sighted people."

It was during Babu's second year at Central Michigan that he decided upon his life's work. The road was sometimes bumpy, sometimes smooth, but worth it because he'd found a way to contribute.

TECHNICAL ASSISTANCE

Babu enrolled in UNCG's doctoral program in 2005 and found in Singh an advisor who helped him shape the research. They decided to look at the subject not only from the blind user's perspective, but with the web developer and accessibility guidelines in mind as well.

An important finding early on gave Babu's research an added dimension. He knew that understanding the problem from a blind user's point of view could lead to improved standards for web design. But he learned that visually-impaired users need to be educated about technology, too.

"Some of our participants could work around problems, others could not. I saw people who are so bad they can't even get to the user/name field to log in. But I also saw people who could navigate pop-ups," he explained.

Mind of the blind

> "I want to educate the world. I feel myself privileged that I am in this position. 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."

"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 thought 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 to 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 set up 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."

Below, Thembi Nala works on a narrative pot. Her themes range from the importance of natural ecosystems, mimpacts of HIV/AIDS, the commemoration of 10 years of South African democracy and Zulu ceremonies such as the reed dance. A law student, Thembi has funded her studies solely through ceramic sales. At right, Peni MaGumbi Mathengwa strains sorghum beer at her homestead in the Pondwane area.

In Zulu hands

8

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 '84, '89 MA PHOTOGRAPHY BY ELIZABETH PERRILL

"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

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 Surface 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 burnished, spherical vessels are used to brew, store and carry low-alcohol, sorghum beer that is served to one's ancestors during spiritual ceremonies. Because these iconic wares 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.



Top left, Peni MaGumbi Mathengwa sieves clay. After this photograph was taken, Perrill purchased basic filtration masks for artists and provided basic information about the health risks of ceramic dust. Top middle, the same artist burnishes a pot. Top right, the second firing (ukufasa), which gives a pot a blackened surface. Bottom left, Azolina MaMncube Ngema paints a pot that reflects her love of beadwork from her home region. Bottom center, a floral motif pot by Zaziyena Agrinth Buthelezi. Bottom right, Irene Smelani applies a clay design to a pot.

"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, wear-





ing 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 "Ukucwebezela: To Shine — 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



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."

African artists whose ceramics were shown could read the descrip-

tions. Also, Perrill organized a business skills workshop held in

conjunction with the exhibition's opening to educate artists about

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,

ON THE INSIDE

For Perrill, being 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 be so interested in having me come to a personal ceremony."

Elizabeth Perrill presents a copy of the "Ukucwebezela: 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.

but add, 'what you do with that information is up to you.'"







the commercial art market.



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.

In 2009, Perrill published "The Crawford Sisters and the China-Painting Craze," an examination of porcelain china painting in the 1890s-1910s in the Midwest. The article appeared in Nineteenth Century: Magazine of the Victorian Society in America.









Wolfgang Amadeus Mozart, top left, is said to have composed his first pieces of music at the age of 5. It's fitting, then, that Dr. Alejandro Rutty's program to encourage children's musical creativity is named for him. Rutty, pictured left, created the program because he remembers feeling frustrated by his inability to write down the music he heard in his head when he was a child.





These children, pictured above, were selected to be part of the 2009 Hey, Mozart! New Mexico project. Top right, Zaira Martin submitted her "Spring Trilogy" for inclusion. Bottom left, Tanner Boyack composed his "Life Cycle of a Frog" on violin. His sister, Jocelyn, (who is not pictured) had a song

- "17 Flying Horses" - included on the 2008 CD. Bottom right, Brendan Aldridge composed "Black Polar Bear." To hear all of their original melodies, followed by the orchestrated versions, visit www.heymozartnm.org/2009music.html

Child's play

With the Hey, Mozart! program, the melody filling a child's imagination becomes a fully orchestrated symphony of sounds.

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 these kids no older than 12 smile, stir in their seats or grow wideeved 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."



BY JERI ROWE

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 stoic in books.

Nope, 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 farflung 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 "cloooose."

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 aaaaaaaaaall 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.

Child's play

hey mogally

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 higher education, fine-tuning his dream of becoming a composer, he always remembered that.

And that's where Hey, Mozart! came from, 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-yearold married father of 3-year-old twins. "Some guy with a symphony background will come in and say, 'Put strings here' or 'Put horns there,' but essentially it's Paul McCartney's tune.

"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 a 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 its Hey, Mozart! program for the last three years.

She has composed on her violin tunes she has titled "Joyful Jocelyn," "17 Flying Horses" and "Swans Are Swimming."

She's an old pro, even as a third-grader. But her first time onstage, she could hardly sit still. And when she heard "Joyful Jocelyn" played, she got up and hugged a few musicians in the orchestra.

"It was kinda scary," Jocelyn says today. "You see all those peo-

ple in front of you and worry if you could faint or fall off the stage. But I try to be calm, look at my violin instead of the people so I won't get all scared and stuff.

"But it's pretty fun. You hear other people do your own piece when they're told to. It makes you feel like you're the head of it all."

Or there's Ethan Cypress. He's 16, an award-winning composer from Oneonta, N.Y. In December, Ethan made All-State with his own composition. But Ethan, who plays viola and trombone, got his start with Hey, Mozart!

He was just 10. He was recommended by his teachers and found himself 10 minutes from his home, sitting in Rutty's office at Hartwick

Got an idea to innovate?

Protect 2008

Visit to find out more about Alejandro Rutty's Hey, Mozart! project as well as hear works from students and the polished work from arrangers.

Also, visit off or send an email to Lisa Goble, director of UNCG's Office of Technology Transfer, at lagoble@uncg.edu.

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Telandro Rutty, Greye

College and hearing about his child-composing project idea.

Ethan often had created his own staff paper with a ruler in school and wrote down his own music during recess because, as he told a reporter at his hometown newspaper back then, he wasn't a "big screamer, running-around person."

But the music he created had nowhere to go until Rutty came around. That first year, Ethan composed "Sweet Sounds;" the second year, he composed "Picture Day."

"That was a while ago, but it was definitely life-changing," Ethan says today. "It gave me a reason to write music.

"And Alejandro, he's a really cool guy. He was open to all of our ideas, and he never rejected anything we gave him. He gave us pointers, of course, but everything we gave him was 100 percent our own. "And that was really, really nice."

But it's not just the kids having fun. It's also the arrangers. Matter of fact, one composer told Brookes McIntyre, the president of Hey, Mozart! in New Mexico: "Please, even if I'm not in New Mexico, let me be an arranger forever and ever."

Eric Bridges gets that.

He's 20, a UNCG junior from Asheville majoring in composition. 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

"It doesn't reward technical training, It rewards a child's natural musical inventiveness."

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 hand."

And his chorus? "Beware! Beware! I am the black polar bear!" Art Sheinberg arranged it. He has been teaching in

Albuquerque's public school system for 34 years.

"You can just imagine being in their shoes," Sheinberg says. "It's like taking a little painting and having it flashed onto a big screen into 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 do.

"There is 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. At least not then.

"I wondered what could have happened if I had the chance through something like this (Hey, Mozart!),' to really hear what I heard in my head," he says. "I could've been a composer."

Rutty, the ever playful professor, stops himself. Then, he smiles. "I mean, a better composer."



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 complied 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 Rosenthal 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.

Marguerite Ross 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 1818 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 free blacks petitioned to be returned to slavery so that they could be with loved ones who were slaves.

"The archive is chock-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*.

Everyday Life and the 'Reconstruction' of Soviet Russia During and After the Great Patriotic War, 1943-1948

Dr. Jeff Jones Slavica Pub (324 pp.)

> Western scholars gained an unprecedented look into the inner workings of the Soviet Union when the Iron Curtain fell in the 1990s. 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. 1943-1948."

Jones focused his research on the city of Rostovon-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 class. "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. Common complaints centered around bad living standards, unfavorable working conditions, food

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 audiences alike. That accessibility is critical, Cyrus said.

"Maybe you've not seen dance before. We want you to be able to come see it and not be alienated," said Cyrus, a dancer in the Graham Company from 1990-93. "Sometimes dance in its more intellectual form can be too distanced from the general populace. Graham, particularly 'Steps in the Street,' is accessible."

The driving music was another factor in his choice. "The music by Wallingford Riegger is so dramatic and sweeping. Just listening to it without the dance you get taken up by the music. Giving the dancers in our department the opportunity to work with such theatrically rich music I know will pull them along with their movement."

Last summer, Cyrus researched the dance, including attending classes at the Martha Graham Center in New York City. During the fall, he taught Graham's technique and history to dance majors and held auditions for the cast.

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

Cyrus is the founder and director of Cyrus Art Production, an organization that presents 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 "Carousel" (U.S. tour) as well as directed domestic and international tours with Cyrus Art Production.

scarcity and the lack of political and personal freedoms. The informant reports, called "svodki," give schol-

ars 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 1990s, a period of academic serendipity 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 was 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 Levenstein The University of North Carolina Press (300 pp.)

Much 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 Levenstein, an assistant professor of history, reframes the experience of urban poverty through the lenses of women in "A Movement Without Marches."

Her findings challenge notions about the roots of chronic poverty. "Poor women did not cause their own poverty - they were not lazy, they were not irresponsible." Levenstein said. "These women were determined and resourceful 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, Levenstein said.

"For 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. "Many of them had health problems. Many were victims of domestic violence."

Levenstein focused her research on Philadelphia after finding a richly documented 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 this period."

theword'sout

A Fatherless Child **Autobiographical Perspectives of African American Men**

Dr. Tara T. Green University of Missouri Press (172 pp.)

TWO BECAME LITERARY GIANTS. Another etched an indelible mark on the civil rights movement. The youngest made history the day he walked into the Oval Office.

Though they lived in different eras and under different circumstances, these four African-American men have one thing in common: During the formative years of their lives, the fathers of Barack Obama, Malcolm X, Langston Hughes and Richard Wright were absent.

Dr. Tara T. Green, director of UNCG's African American Studies Program, explores the impact of the fathers' absences and how their now-famous sons coped in her new book, "A Fatherless Child: Autobiographical Perspectives of African American Men."

"One question pulls this together: What is the impact on black men when their fathers are absent?" said Green. "It's guite 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 place 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

an African-American literature course, a student asked Green. "Why were so many of these black male writers abandoned by their fathers?"

Far from being mute on the subject, the writers voice their feelings of loss and pain, vulnerability and resolve in their autobiographical works, often in stark terms.

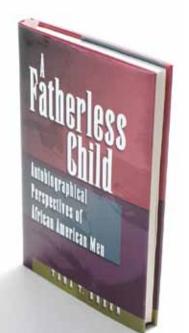
The same happens today, Green said. "One reason this book is important to me is because we don't listen enough

to young African-American males when they're talking to us." Fatherlessness remains an issue. According to 2007 U.S. Census

Bureau information, 50 percent of children identified as black or multiethnic with black heritage live in single-mother households.

But the success of the profiled authors proves that the absence of a paternal figure doesn't have to be an insurmountable obstacle, Green found.

"I'm not saying in this book that not having a father doesn't make a tremendous impact, because it does," Green said. "What I am saying is that they have a chance to be something - and we need to encourage that."



SAY YOU WANT TO GATHER THE BEST ACCOUNTANTS from around the world to work for your company. Talk about a competitive edge. But how do you make sure your melting pot workforce gels together to give you the business advantage you imagined?

Consult Dr. Vas Taras, a faculty member in the Bryan School of Business and Economics and an expert in cross-cultural communication. His research investigates strategies that will help businesses bridge cultural differences among colleagues and with clientele.

"International human resources is an important part of management," Taras said. "Many people feel like if you're a great accountant, that's all you need. Sometimes that may not be enough."

Studies show that people often make assumptions about others based on how well they speak, if they have an accent, what they look like and other cultural biases.

Consider a globally diverse work group who all speak English on the job, Taras said. "The people who speak English better speak more, so their opinions are weighted." But some people may not be as fluent in the working language. Often, "their opinions aren't heard."

But in business, it's important that every voice be heard. Research shows that cross-cultural workgroups are more creative, Taras said. "I generally believe you can improve performance by 50 percent on a cross-cultural team if you do it right," he said. However, language isn't necessarily the biggest challenge for

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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, his interior woodwork will start to receive its due.

Published by UNC Press, the book is being released May 22, the date a Day exhibit opens at the N.C. Museum of History, where the book's co-author, Patricia Phillips Marshall, is the curator of decorative arts.

The roots of the book go back to 1991, when Leimenstoll worked as the architect on the restoration of the Dav House in Milton. She heard from locals that other houses in the area had woodwork by Day, who owned the largest furniture shop in the state in the mid-19th century.

She knocked on doors and located property owners by word of mouth. Through her research she explored the Greek Revival homes



that Caswell County planters built more than 50 years ago. In many cases, these formal exteriors hid the undulating shapes and fluid lines that are Day's hallmark. "In a staid kind of setting, you walk in the door and it just knocks your socks off," Leimenstoll says.

The houses with Day woodwork continued to add up. "I was very excited to find six newels that appeared to have been cut from the same template," she says. "That's when I realized he was really turning out the woodwork as well as furniture. Prior to this, people thought of him as a furniture maker who happened to occasionally dabble in woodwork."

She eventually documented 80 homes with the same motifs and distinctive energy found in Day's furniture. For instance, as a furniture maker, Day used S-shaped brackets. In his architectural woodwork, those same serpentine shapes are writ large, including threefoot-tall newel posts (pictured left with Leimenstoll).

"I believe his woodwork is even more evocative than his furniture, because it's on a bigger scale," she says. "He's sculpting the whole stair hall and the parlor. It's just bolder."



those teams. Differences in values, assumptions, importance attributed to family vs. work life, preferences for different ways of distributing rewards and working out decisions, and management styles (directive vs. democratic) are equally or more important but less recognizable, he said.

Cross-cultural communication isn't just something Taras studies. The Ukrainian native, fluent in four languages, has lived it: from his high school studies in Germany, to higher education in the United States and Canada, and travels to just about every European country in between.

And his research area is one that will become all the more important in years to come, as the Baby Boomer generation in the U.S. and Canada retires, making way for an increasingly diverse younger generation. The customers those businesses serve are also increasingly diverse and many companies have ambitions to become global enterprises, meaning they need to effectively connect with new audiences.

Their communication success could make a big difference in a measure that's universally understood: profit. Many people, especially scholars who study cross-cultural communication in sociology, do it because it's interesting, Taras said.

Not him.

"I'm a business person. I personally believe you can make more money if you take those things into account."

The good news is that these problems could be easily fixed and the potential of crosscultural teams can be easily unleashed." Dr. Vas Taras



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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 PRIZED POTS For centuries South African ceramicists have created pots to be used in ancestral ceremonies. Now,

