



ACADEMIC **OUTREACH**

Fall 2006

Bridging our college & the community



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and Communications
College of Arts and Sciences*

DEAR READERS,

The fall 2006 issue of the College of Arts and Sciences' academic outreach newsletter celebrates the excellence of four faculty members whose contributions to the community are making a positive difference. Bruce Ralston and David Feldman are applying their expertise to enable Tennesseans—policymakers and citizens—to make informed decisions. Robert Bast and Don Hough are extending their classrooms into the community to share their knowledge with audiences of all ages.

Dr. Bruce Ralston, whose expertise includes data management and geographic information systems (GIS) applications, designed the *Tennessee Electronic Atlas*, a software platform that enables easy access and manipulation of a wide variety of databases including socioeconomic data by county, as well as information about the state's agriculture, education, physical landscape, economy, and much more. It is a readily accessible Internet repository of valuable information about Tennessee for use by constituents from primary-school students to those whose policy and business decisions hinge on accurate information.

Dr. David Feldman, professor and head of the Department of Political Science, is an internationally recognized expert in natural resource management. In our region, Feldman is the director of the Southeast Water Policy Initiative, a pioneering research and education partnership, the objective of which is to establish a coherent, long-term, collaborative approach to water management, particularly in the Southeast. He also serves as the first scholar-in-residence for Tennessee's Department of Environment and Conservation (TDEC) where he has been involved in producing an environmental report for the department to help quantify the state's resources and identify major environmental challenges.

Dr. Robert Bast and Mr. Don Hough are talented and dedicated teachers whose classrooms know no boundaries. They are honored as the 2006 recipients of the college's Academic Outreach Awards, which recognize their extraordinary success in sharing

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OPEN DOORWAY TO INFORMATION— THE TENNESSEE ELECTRONIC ATLAS



Dr. Bruce Ralston

Faculty members and graduate students in the Department of Geography are making navigation through mountains of data about Tennessee and Tennesseans easier than ever before with the *Tennessee Electronic Atlas*. Professor Bruce Ralston began the atlas project in 2000 to give geography students a chance to work with the most sophisticated map-construction software. But as other potential uses became apparent, Ralston extended the project beyond the first year to make the information offered available to anyone interested in Tennessee and its citizens.

atlas by converting census data from the U.S. government, tax information from the state, and demographics reports into widely used mapping formats.

Another geography faculty member, Dr. Carol Harden, professor and interim department head, is working in East Tennessee with her graduate students gathering data on erosion and watersheds. They analyze how movements of water and soil are affected by human activity and catalog changes in land-use patterns over time. This data will be combined with aerial photos of the region and added to the atlas to make the information available to those who work on regional conservation and environmental policy.

can improve efficiency by using the atlas to coordinate the routes and schedules of a fleet of vehicles.

Within the university community, Dr. Shih Lung Shaw of the Department of Geography, who researches transportation, geographic information systems (GIS) applications, and transportation planning and modeling, has been working with the atlas and GIS to produce a procedure that would facilitate the Tennessee Department of Transportation's compliance with federal law. All states must assess each proposed highway construction project for potential impacts on the community and the environment. Using the atlas in conjunction with economic, demographic, and census data, Shaw has been able to determine whether TDOT's projects disproportionately affected any demographic group.

"The atlas was not designed to influence public policy, only to facilitate it," says Ralston. "The major benefit of the atlas is that it can save hundreds of hours of work by those trying to find information. This would allow policymakers or other users to use their time in the most productive manner." The atlas also enables better-informed decisions, guided and supported by current data.

Thanks to the expertise of Bruce Ralston, his colleagues, and UT Knoxville's geography graduate students, Internet users now have a robust research tool. Constructing the Tennessee Electronic Atlas is another powerful way in which the faculty and students of the College of Arts and Sciences of the University of Tennessee, Knoxville, reach out to serve the community, the state, the nation, and the world. **AO**



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—DR. BRUCE RALSTON

With the electronic atlas, users can easily compile a wide range of data and overlay it onto a map of the state. The e-atlas features an easy-to-use format that allows access to a huge collection of nonproprietary databases available from a variety of sources, including the state and federal governments. Regular updates of the databases are performed by students in the department in an effort to ensure that the information used is current.

Though most of the data is publicly available at various locations on the Internet, the electronic atlas serves as a user-friendly single-point interface from which any user can retrieve and manipulate data to produce information about Tennessee. Faculty members and graduate students in the Department of Geography continually add to the

Potential benefits offered by the *Tennessee Electronic Atlas* are enormous. Besides its value as an educational tool, it can be used by government agencies—emergency planners, for example—to overlay hazardous spill areas on population maps to determine evacuation zones in vulnerable areas. Local governments can use it to facilitate revenue collection, economic development, and public information. Tennessee Legal Aid uses the atlas to overlay economic information with litigation patterns to allocate its resources most efficiently. With the atlas, insurance companies can visualize, analyze, and distribute their risk. Similarly, media enterprises can use the atlas to analyze usage patterns for various demographic segments to offer targeted marketing to advertisers. And logistics managers

To access the *Tennessee Electronic Atlas*, visit the Web site <http://tnatlas.geog.utk.edu/tea/>.



DAVID FELDMAN: ENVIRONMENTAL POLICY MASTER IN TENNESSEE'S CORNER



Dr. David Feldman

Dr. David Feldman, professor and head of the Department of Political Science, speaks enthusiastically about his evolving role as the first scholar-in-residence at the Tennessee Department of Environment and Conservation (TDEC). “It is important to be both for the environment and for democracy,” he says. “The way to implement environmental policy is not through draconian measures but rather by building a consensus and a mechanism of consent.”

His even-handed approach, plus a grasp of the needs of opposing groups, are assets that Feldman brings to the table, whether he is helping formulate public policy in the Tennessee state house or conferring about plans to help develop civil society in Russia to enable environmental protection. Environmental policymaking requires both learning from experience and building a consensus among key stakeholders. Without such consensus, the resulting policy is unlikely to be implemented effectively.

TDEC named Feldman its first scholar-in-residence in October 2005 to help the department access the state’s wealth of academic scholarship on environmental issues. “This position gives our department a stronger connection to the academic and research capabilities at Tennessee’s universities and colleges,” said TDEC’s commissioner, Jim Fyke, at the announcement. “Having a scholar-in-residence will be a distinct benefit as we continue to seek and grow partnerships that help us protect and improve Tennessee’s air, land, and water.”

“Tennessee is fortunate to have a number of highly qualified academicians who have a deep knowledge of the state’s natural resources,” added TDEC’s deputy commissioner, Paul Sloan. “Dr. Feldman is a leading example of this expertise, and we are particularly pleased to have him serve as our first scholar-in-residence.” Feldman himself

believes that the benefits of his appointment will flow both ways: he expects that what he learns as TDEC’s first scholar-in-residence will inform his own research, as well as enrich the stock of information he can share with students and colleagues.

Though Feldman was trained in political science, his earliest work—strictly by chance—involved him with the water plan for the state of Missouri. Though not a physical scientist, he quickly discovered that his public-policy skills were an asset to the water-planning process. He used established principles of allocating finite resources, balanced with accepted principles of fair distribution of economic impacts, to devise methods for using resources effectively while leaving enough for later generations. Since this unintentional beginning, he has earned both national and international recognition through his published works in water policy, energy, and environmental sustainability. In July 2006 he was invited to lecture on adaptive management of natural resources at the Central Party School in Beijing, China. While in China he spoke also at Renmin University on water resource policies, and in Shanghai he addressed local business leaders and government officials about regional environmental issues. In September Feldman was appointed to a product-development committee of the U.S. Climate Change Science Program. Together with National Oceanic and Atmospheric Administration engineers, natural scientists, and social scientists, the group hopes to evaluate how decision-support information systems for predicting climate change can be made useful to water resource managers.

In Tennessee, Feldman’s analyses were part of the input that helped the state develop the Interbasin Water Transfer Act of 2000, which regulates certain water withdrawals from streams and aquifers in Tennessee. The act was designed to give the Department of Environment and Conservation an opportunity to review and determine whether

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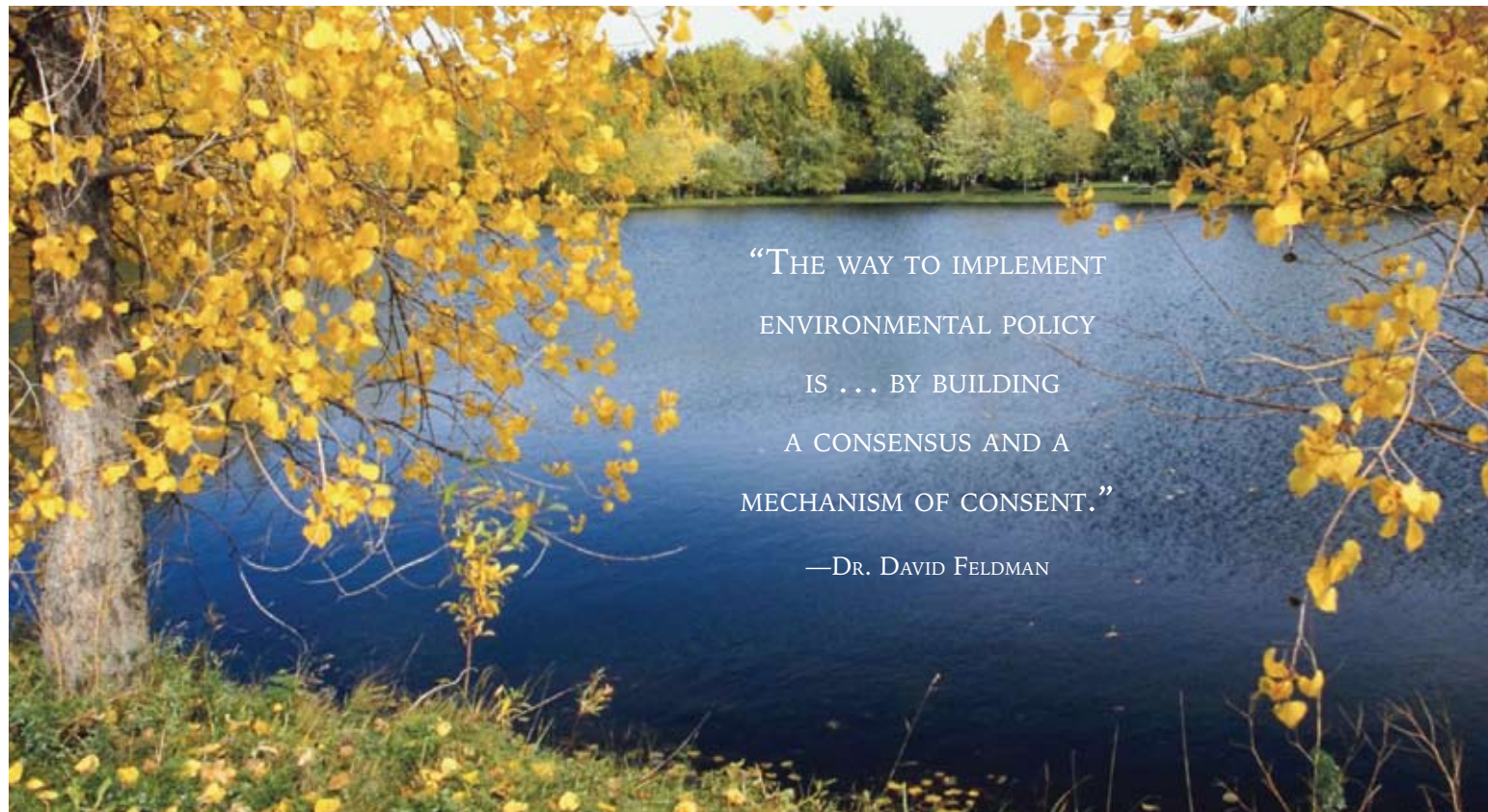
proposals for interbasin water transfer, both within the state and across state lines, protect the environment and an area's water needs. TDEC may issue a permit with protective conditions or deny applications based on the criteria set forth in the act. Feldman recognizes that, because of urban growth, the Southeast is now facing problems similar to those the West has been facing for decades. "Water is not free, and it's not cheap," he says. "We have to learn how to protect it and learn how to manage and use it better and how that will affect our neighbors. As demands increase, it will become a challenge to keep up. We must also be mindful that as urban centers expand, so does the pollution from expansion-related runoff."

Feldman also directs the Southeast Water Policy Initiative, created in 2001 to establish a long-term collaborative approach to solving water management and distribution issues. In his role as TDEC scholar-in-residence, he is involved in advising on efforts to try to control pollution in Tennessee and the Southeast. "Regulations have done a lot of good, but we need to be more innovative," he says. "We need to emphasize market incentives and education to encourage people to change their behavior. To help reduce air pollution, we should encourage people to car-pool and use public transportation. With water pollution, we should be careful of the chemicals we put on our lawns and be aware of the invisible problem of urban runoff." Runoff from agricultural and mining sites is often assumed to be the major source of water pollution. Feldman, however, is more concerned with increased urban runoff because there are few controls and no laws restricting it. "Tremendous growth and trends toward urbanization—a change from rural agrarian to urbanized regions—are producing a vast new source of pollutants," he says, which needs to be managed with careful urban planning and sprawl minimization. The ideal is sustainable growth—not zero growth—which

he believes can be accomplished through public education, watershed initiatives, and dealing fairly with all the concerned parties.

When addressing any public issue, a logical starting point is collecting accurate baseline information and making it available to interested constituencies. During his tenure as scholar-in-residence, Feldman has been closely involved in producing an environmental report for the Department of Environment and Conservation. Says Feldman, "The report is expected to be part of a process, not a final product," that will quantify the state's resources and identify major challenges. It will also detail possible strategies for using land, managing urban growth, and using alternative energy sources. He hopes the report will help build a political constituency for sustainable resource management in Tennessee.

TDEC's scholar-in-residence has long been appreciated as one of UT's own resident scholars—David Feldman brings his expertise, practical experience, and energy to every classroom he enters. He enjoys teaching undergraduates about American political thought, and for context he pulls in ideas and ideals of both ancient and contemporary political philosophers. His graduate classes in environmental and comparative public policy prepare the next generation of scholars and policymakers for the many challenges of the future. **AO**



“THE WAY TO IMPLEMENT
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IS . . . BY BUILDING
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—DR. DAVID FELDMAN

TEACHERS WITHOUT BOUNDARIES: BAST AND HOUGH HONORED FOR EXTRAORDINARY OUTREACH

Each year the College of Arts and Sciences honors two of its own with the Faculty Award for Academic Outreach. This award acknowledges extraordinary contributions by faculty members who share their scholarship with the community in ways that enrich and improve its quality of life. This year's recipients are Dr. Robert Bast, associate professor in the Department of History, and Mr. Don H. Hough, associate professor in the School of Music.

Bob Bast is honored for his outreach activities during the past year. Extending his classroom beyond the campus, he has shared his knowledge with students ranging from elementary-schoolers to senior citizens. Locally Bast's name has become almost synonymous with that of Leonardo Da Vinci—he has delivered at least 20 lectures on *The Da Vinci Code* to many of the region's community, school, and church groups, usually drawing capacity crowds. He also has created and presented lecture series on such topics as ancient and contemporary Christian culture, relations between Christians and Jews from late antiquity to the Protestant Reformation and the world of Islam.

For Bast, a dedicated teacher and passionate historian, nothing is more rewarding than sharing his knowledge with eager students of any age. He recently sought to engage younger students in learning about medieval history. With the assistance of history graduate student Rob Stewart, Bast designed and presented

a teaching unit, "The Vikings: More than Barbarians," to enrich the 6th-grade social studies curriculum in Knox County Schools. According to Bast, the idea germinated as he helped his 6th-grade daughter study: "I thought we could design a lively unit about the Vikings that could be readily integrated into the school curriculum," he says.

In February 2006 he and Stewart gave a preview workshop for teachers of 6th-grade social studies. With slides and video, the program depicts Viking culture in light of the most current scholarship, describing its history,

technology, social customs, and geographical spread. The demonstration was followed by a Q&A session, as well as the opportunity to handle the artifact replicas that he and Stewart prepared. "I know of no better way to ignite the imagination of students than to let them handle the stuff of history," says Bast.

The teachers who attended enthusiastically embraced the project. Holston Middle School teacher Kristi Mitchell said, "Because of Dr. Bast, Viking culture will come to life in [my] students' minds. The presentation will help enrich the curriculum because textbooks are lacking in this area, and we don't have a lot of other resources available to us." Educators all across Knox County scheduled Bast and Stewart for visits. By the end of the 2005–06 school year, the pair had visited six middle schools and given 11 classroom presentations, thus giving many Knox County middle-schoolers a chance to learn about the Vikings and their role in history.

Since joining the UT faculty in 1994, Bast has excelled in all three aspects of the college's mission—teaching, scholarship, and outreach—while earning the esteem of his peers. Besides conducting an active research program and writing three books, he edits the book series *Studies in the History of Christian Traditions*. Since 2003 he has been the director of the university's Marco Institute for Medieval and Renaissance Studies, a position recently renamed the Riggsby Directorship. His first-rate teaching has earned the University of Tennessee Teaching Award, 1997; the Leroy P. Graf Award for Outstanding Professor of History, Department of History, 1998; the National Alumni Outstanding Teacher Award, 2001; the University of Tennessee Jefferson Prize for Excellence in Research, Teaching and Service, 2002; and a nomination for the James R. and Nell W. Cunningham Outstanding Teaching Award, College of Arts and Sciences, 2004.

To honor his sustained commitment to outstanding academic outreach throughout his teaching career, **Don Hough**, an associate professor in the School of Music, received the Faculty Award for Academic Outreach. Since joining the school in 1965, Hough has been engaged with the regional community as a performer, jazz teacher, and judge, playing with and directing a number of all-region and all-state bands throughout the South, including the 1985 Tennessee All-State Jazz Band.

Hough works tirelessly to bring the experience of jazz and musical performance to fledgling musicians in the state's middle and high schools. By going into the schools, he gives students a rare one-on-one master-class experience that helps them achieve their musi-



Dr. Bob Bast displays replicas of medieval Viking weapons and armor to 6th-grade students.

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Mr. Don Hough

consistently provided an opportunity for young musicians, as well as the nonmusicians, of middle and high schools to experience music, especially jazz, at an otherwise unavailable level. "It is important that music and the opportunity to play music be brought to local schools," says Hough. "Otherwise many of these students

would never have the chance to experience music so closely."

Hough has brought his talent and musical expertise to the whole community as the principal trombonist for the Knoxville Symphony Orchestra for more than 30 years, and he also shares with the community his appreciation of an original American art form—jazz. To help people understand jazz, Hough teaches by doing. His presentation "Jazz: What Makes It Work" was the first in a series of concerts, lectures, and workshops presented during the second annual Knoxville Jazz Festival. He and other jazz musicians formed a combo to demonstrate jazz styles and improvisation. "It was a marvelous way to kick off our jazz series and festival," said the event's organizer.

In a "Pre-Game Faculty Showcase" preceding a home football game in fall 2005, Hough presented a similar program. One appreciative audience member remarked "his explanations were very educational without being overly technical." The host of another of Hough's engagements wrote to the dean to say, "It was such good outreach from the University of Tennessee! It really made the university feel accessible to the community."

Hough holds substantial credentials as both a musician and a scholar. He earned degrees from Lamar University in Beaumont, Texas, as well as a Master of Music degree from the University of Tennessee. He has studied with Richard Burkart of Ohio State, Frank Crisafulli of the Chicago Symphony, Frank Brown of the Cincinnati Conservatory, world-famous jazz educator Jerry Coker, and the great Slide Hampton. He has directed several of the university's jazz groups, performed with the Faculty Jazz Sextet, and taught jazz arranging and composition. He created and conducted the University Studio Orchestra, which performed with many noted musicians, and also directed the UT Brass Choir and Brass Quintets. He founded the UT Trombone Choir and the award-winning jazz student trombone group Tennessee Trombonery, which was named the National Jazz Trombone Ensemble in 2003. Tennessee Trombonery has performed at locations from East Tennessee high schools to the 2003 International Trombone Festival in Helsinki.

Aside from his superior teaching, scholarship, and creative performances, Hough has also excelled in the third mission of the university—outreach. Summarizing his 40-plus years of engagement with the university and its surrounding community, he says modestly, "I have had the rare opportunity to take my talent and to use it to give joy both to myself and to a new generation of learners." To the students of the University of Tennessee he is an inspiring, energetic teacher and mentor whose dedication to teaching matches his performance energy—just a few of the reasons he received the Chancellor's Citation of Excellence in Teaching in 2004.

To ensure the highest caliber of recipients of the Faculty Award for Academic Outreach, the college's department heads are asked to nominate only faculty members who excel in scholarship and teaching as well as in outreach activities. Awardees are selected by a committee of four senior members of the faculty, one from each of the four divisions of the college. The dean presents the award at the annual Arts and Sciences Faculty Convocation. This year marks the 17th time that the college has presented its two outreach awards. Of the two awards presented this fall, one recognizes extraordinary academic outreach in a single year; the other, a sustained commitment to exceptional outreach throughout a teaching career. Between Bob Bast and Don Hough, we have the best of the best, and the college is appropriately proud. **AO**

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their knowledge with the larger community. We in the college hope that you enjoy reading about these outstanding representatives of the Arts and Sciences faculty whose work enhances the quality of life for citizens of the state and the region.

Lynn Champion, Ph.D.

Director of Academic Outreach and Communications

ACADEMIC OUTREACH

"Academic Outreach" is published by the Office of Academic Outreach in the College of Arts and Sciences of the University of Tennessee, Knoxville
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Production Editor: Mary Marshburn, UT Creative Services
Printing: UT Graphic Arts Service
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