

# THE Minnesota Geographer

COLLEGE OF LIBERAL ARTS

UNIVERSITY OF MINNESOTA

SPRING 2007

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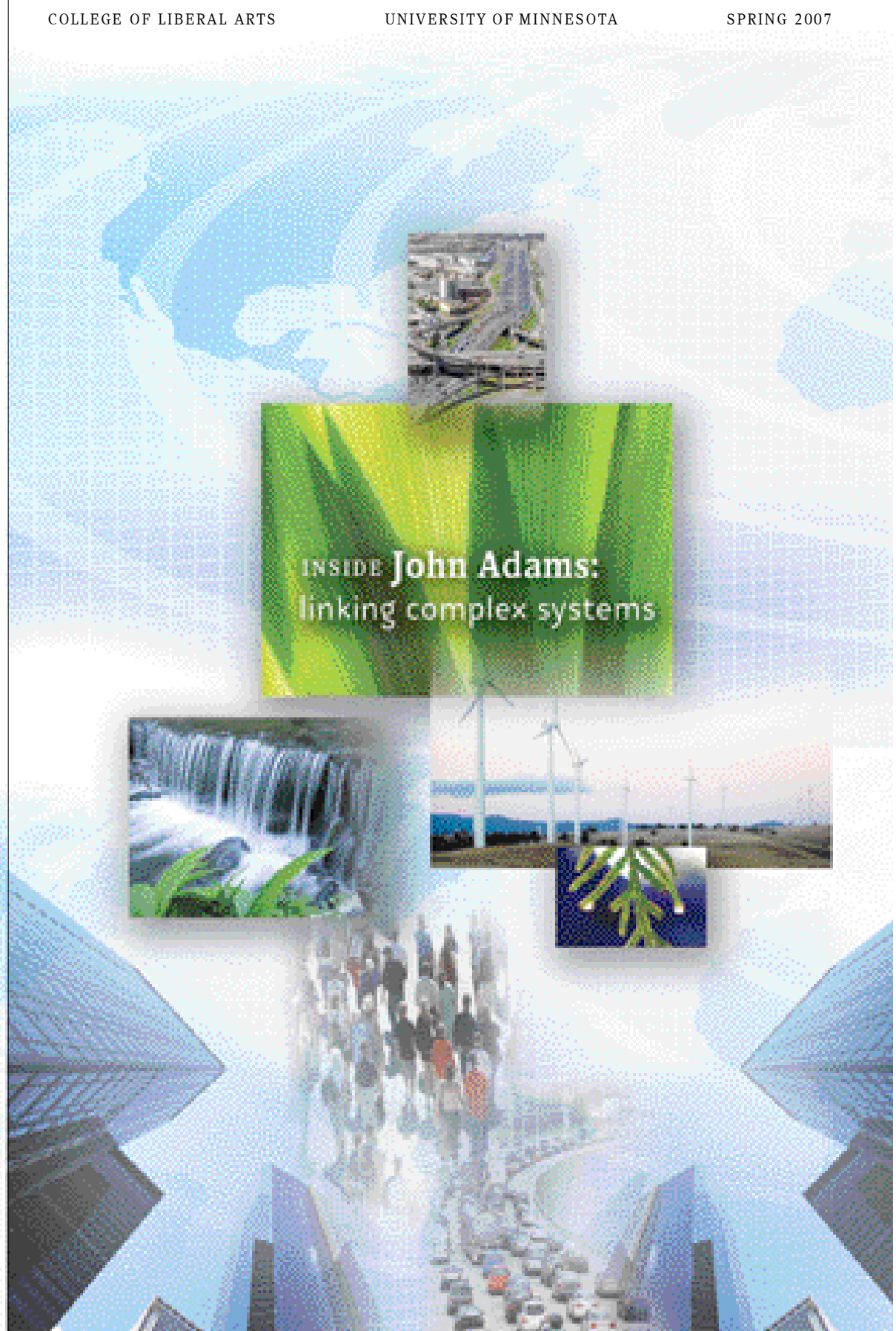
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UNIVERSITY OF MINNESOTA  
Driven to Discover

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**GEOGRAPHY DEPARTMENT CHAIR**

Robert McMaster

**COLLEGE OF LIBERAL ARTS DEAN**

Steven J. Rosenstone

**EDITOR**

Eugenia Smith

**WRITERS**

Danny LaChance

Phil Lewenstein

**PHOTOGRAPHY**

Kelly MacWilliams, George Peters,  
Everett Ayoubzadeh, Chet Snedden

**DESIGN**

George Peters Design & Illustration

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Robert B. McMaster

# News from the Chair

Welcome to the Department of Geography—or perhaps I should say welcome back! This newly designed *Minnesota Geographer*—a collaboration between the geography department and our home college, the College of Liberal Arts (CLA)—is your new portal into the department.

In my second year as chair, the department continues its journey through a decade-long period of retirements and rejuvenation. Despite many painful losses to retirement over the past 15 years, we have much to celebrate on the faculty front. As distinguished senior scholars have left, we have recruited rising stars to build on their valuable work and break new ground. These newcomers are already attracting international attention for their work in areas as disparate as human–environment and nature–society relationships, culture and politics, politics and food in Africa, climatological modeling, Geographic Information System (GIS) and institutions, the geographies of memory, land use–land cover modeling, paleoecology and past climate reconstructions, and the geography of music.

Thus we continue to build in the three major areas of the department—human-social, biophysical, and geographic information science/systems. One measure of the quality of our junior hires is the number who have received the prestigious McKnight Land Grant Professorship, awarded to the most promising junior faculty. This award has gone to Bruce Braun, VinayGidwani, Bryan Shuman, and Steven Manson.

Across generations, faculty involvement in research projects is broad and deep—from the National Historical Geographic Information System (NHGIS) project (story page 14–15) to the CLA Space and Place collaborative, an experimental forum that bridges the methods, concerns, theories, and practices of the humanities, fine and performing arts, and social sciences. Our faculty have been elected to national and international professional offices, have received major grants from the NSF and NASA, and have served the community in many remarkable ways—working directly with community organizations and bringing their expertise to problem solving around issues ranging from traffic congestion to global climate change. And they remain dedicated to their students. Three are members of the University's Academy of Distinguished Teachers.

In the end, of course, students are what this whole enterprise is about—and by any measure, our students continue to bring luster to our department. They win national awards, partner in research, and generate new ideas and new applications. We are pleased that our academic programs are thriving, and that our reputation for excellence in instruction at all levels continues.

As you have done, our graduates continue contributing to academia, government, and industry in myriad ways—as teachers and researchers, professional geographers, public policy experts, and civic leaders. We have now graduated more than 60 students from our master's of geographic information science program—and they work in organizations throughout Minnesota, as well as in Thailand, India, and other countries. Our Ph.D. graduates have landed positions at some of the very best places, including the University of British Columbia, University of Washington, University of Florida, Clark University, University of Georgia, Middlebury College, and Dartmouth College.

To reflect on our accomplishments and to help sort out our future, we completed an external review of the department last fall, our first in 18 years. Building on the report of the review team, we are developing a departmental strategic plan that will identify both the key departmental directions for the next decade and, more importantly, the resources that will be needed to achieve our goals.

It was the last strategic plan, completed in the mid-1990s, that guided the department through the past 10 years. This plan laid out a schedule for hiring, and we followed it: We created a master's program in GIS (one of the first, and now the most successful, in the country). We helped to create an interdisciplinary environment studies degree—an undergraduate program in biology, society, and the environment (BSE), which has grown to more than 100 majors. We look forward to completing and implementing another thoughtful, forward-looking, and comprehensive strategic plan that will enable the department to maintain its distinction in the discipline.

Please stay in touch with us. Tell us what you are doing, send us some memories of your days in our department, and let us know how to better connect with you. I am just a few keystrokes away at [mcmaster@umn.edu](mailto:mcmaster@umn.edu).

Best wishes,

*Robert B. McMaster*

# Greater than

For 36 years, John Adams has been asking hi

Ask John Adams' former students about what he's like in the classroom, and you won't hear about his scribbling lecture notes on chalkboards.

Instead, you'll hear about his traversing the streets and byways of places like Kirovsk, Russia, pointing to maps and census data and introducing students to representatives of city governments.

For 36 years, Adams, known affectionately to students and colleagues as JSA, has made the world—from Minneapolis neighborhoods to Eastern European cities—his University of Minnesota classroom. Yet however wide his travels and his worldview, at the core of his research and teaching is the American city—or even more specifically, “the metro economy, how it is linked with regional, national, and international economies, and how it combines with the social and physical, and political forces to produce outcomes for people and places.”

Working side-by-side with their teacher and mentor, many generations of Adams' students have learned “how and why large urban metros have evolved in North America and how they operate as complex systems,” says Adams. They also have discovered some of the flaws in urban planning—which, says Adams, “has achieved only limited success in addressing issues of efficiency, inequity, and injustice in our cities.”

The challenge is to find ways to make cities better for everyone—and doing just that has been Adams' stock in trade.

## Drawing out the big picture

“In the seminar room, on the streets of Chicago, and on the buses of Kirovsk, Russia, John showed me how to study, how to really see the rich tapestry of the city,” says Elvin Wyly, a former graduate student who is now associate professor of geography at the University of British Columbia, Vancouver.

“He established a legendary tradition of integrating theoretical and scholastic rigor with on-the-streets field experiences that captures the essence of human geography.”

Cultivating students' capacity to see the big picture is Adams' first priority in the classroom. The trick, he says, is to get them out of the classroom *into* the heart of the city, taking its measure, talking to its people. It's not enough, he says, to read or listen to lectures about cities. To appreciate the rich texture and myriad challenges of cities, students need to dwell in them, and they need to ask lots of people lots of questions. As they collect impressions, testimony and data, and put the pieces together, they see what works and what doesn't. And they come to understand the mutual



Kelly MacWilliams

dependence of elements within a larger system.

“As geographers, we provide coherent models of how people settled and used the world and, in the process, changed it,” says Adams. “And then we think about how they confronted the world they changed. We try to fit all parts together—demographics, schools, transportation systems, natural environment, land use, and public policy—so the process can be understood as it is played out in different places.”

Barbara VanDrasek, a research associate in the Department of Geography who has worked with Adams since the 1980s, says



# the sum

students to think big

George Peters

this integrative approach helps students see patterns and connect the dots across a regional landscape.

“John is a systems thinker,” she explains. “He works hard to help students see the significant but not always obvious relationships among elements on the landscape that may appear unconnected at first glance—like transportation and land use, inner-city poverty and suburbanization, capital shifts and housing development.”

In the end, some of the lessons gleaned from Minneapolis and St. Paul and the larger metro area can be applied to Portland or Chicago—or to Kirovsk, for that matter. And the revisioning, reinvention, and renewal of cities can begin.

## Shaping policy

Communities need wide-angle thinking in their policy makers, Adams says. Bad decisions, he explains, can often be traced back

to a failure of vision, or to too narrow or short-term a focus. The average Minnesota community doesn’t have a comprehensive balance sheet that weighs the area’s tapped and untapped potential against its liabilities or weaknesses, or that weighs short-term costs and gains against long-term outcomes.

“We concern ourselves only with short-term profits and losses, and the maximization of spending,” Adams said in an April 2006 keynote speech to the Minnesota Environmental Initiative, which is dedicated to developing solutions to Minnesota’s environmental problems. “It makes perfect sense, then, to scrimp on the budget for the Department of Natural Resources and watch Minnesota’s waters become increasingly impaired, or sell off old-growth forests and other environmental assets to balance the budget.”

The situation is made all the worse, says Adams, by a focus on personal consumption grounded in self-interest—leading to

*John Adams, continued on page 4*

John Adams, continued from page 3



Kelly MacWilliams

“minimal investments and inadequate oversight of systemwide public goods—school systems, transportation systems, natural environments, public health, and more.”

Especially as the Minnesota countryside “urbanizes”—as the character of rural and small-town Minnesota is transformed and “new settlement forms” and new ways of life evolve—careful long-range planning is critical, says Adams.

### Dedicated public intellectual

In his lengthy tenure at the University, Adams has amassed an impressive record of oft-cited scholarship. That record includes, for starters, more than 100 articles, books, and reports on the American urban landscape.

Perhaps his best known publication is *Minneapolis–St. Paul: People, Place, and Public Life* (University of Minnesota Press, 1993), coauthored with VanDrasek. The book examines the physical, economic, and social environment that sets the Twin Cities apart from other U.S. cities of its size, and also looks at the growth and future of the metropolitan area.

Adams’ impact beyond the academy is no less impressive. Adams has dedicated years of service to organizations such as the Minnesota Department of Transportation (MnDOT), which funded his research on Twin Cities regional dynamics and the transit implications of outward migration. His findings helped shape the agency’s Regional Growth Study, which looked at the impact of metro expansion on transportation as well as on other infrastructure needs.

“John showed MnDOT that a geographer could provide useful information and new ways of thinking about complicated transportation issues,” says Laura Smith, assistant professor of geography at Macalester College, who remembers admiring Adams’ commitment to bridging the gap between the academy and society.

“At meetings of the principal investigators, it was always refreshing when John would remind us of the big picture,” Smith

says. “How do Twin Cities housing markets, transportation funding, and municipal finances fit together? And how do these things affect congestion levels and the provision of transportation infrastructure? And vice versa? These were the types of questions—timely, relevant, and important—that John wanted to analyze.

“And, of course, he was able to articulate these questions and our research results to a wide range of audiences, from academics to policy makers to the general public.”

Throughout his career, Adams has demonstrated a penchant for leadership, both on campus and off. At the University, he chaired the Department of Geography three times and served as first director of the Humphrey Institute of Public Affairs. On a national level, he served as secretary, vice president, and president of the Association of American Geographers.

In recognition of his contributions both inside and beyond the academy, Adams has received several prestigious honors. Among them is the 2004 University of Minnesota Center for Transportation Studies Richard P. Braun Distinguished Service Award, given annually to a “champion of transportation innovation” for “outstanding leadership and contribution to research.” In 2000 he became the University’s first Fesler-Lampert Chair in Urban and Regional Affairs, in recognition of his prodigious scholarly contributions to his field.

In retirement, Adams plans to continue work on research projects—including those for the University’s Center for Transportation Studies. But his greatest legacy, say students and colleagues alike, will be the contributions to the discipline and to communities throughout the world of the many students he has taught and mentored.

“John has nurtured students in research, scholarship, and professional development in ways that impart lasting lessons of practice for a new generation,” says Wylly. “He has encouraged us to renew our commitment to the responsibilities of the engaged public intellectual.” ■

# Map quest

Lance Kollman prepares for a future in urban planning

As a boy, Lance Kollman pored over an old globe and atlas that his grandfather owned. There was something about the tattered, worn objects and the way they depicted space, he says, that fascinated him.

It was an interest shared by his grandfather, who, in addition to being a map and atlas enthusiast, was a successful contractor. Time spent with his grandfather, Kollman says, was time spent thinking about the construction of space. How do people go about building the environments they occupy? he wondered. How does space shape life? And, most importantly, how can those who plan environments shape a sustainable future that meets human needs?

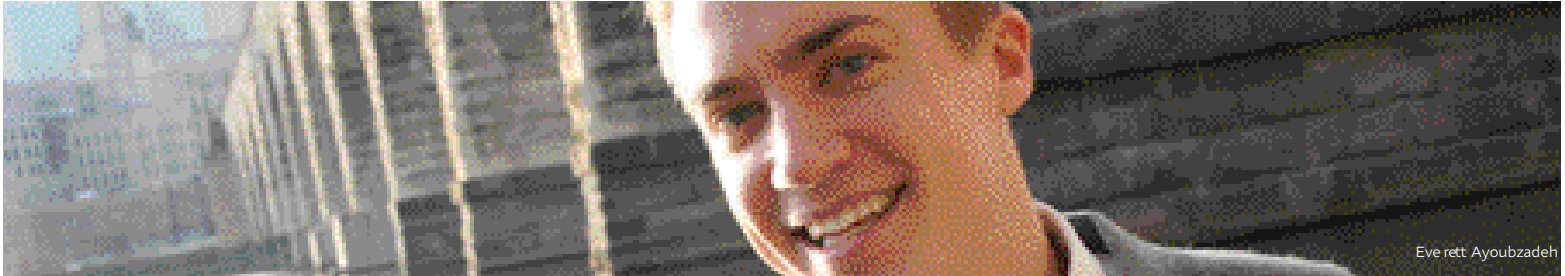
The questions lingered, eventually moving Kollman to imagine a career in city planning. As he began taking courses related to his interests at the University, Kollman began to appreciate just how interdisciplinary those interests were, spanning economics and

atmosphere of the department, the small classes," he says. "You get to know the professors by name, and they know you."

## A scholarship pays forward

University academic scholarships, Kollman says, made his education possible. During his senior year in high school, he was awarded a Minnesota Gold Scholarship, a prize given to students who graduate at the top of their high school classes and demonstrate leadership, creativity, community involvement, and a contribution to diversity.

"The scholarship lightened my financial burden and enabled me to focus more on my classes," Kollman says. It also enabled him to pursue internships that immersed him in urban planning issues. While he was interning with the environmental services division of the Hennepin County Public Works Department, he learned about



Eve rett Ayoubzadeh

governments, history and architecture, urban politics and conservation biology—fields of knowledge that initially seemed as sprawling and scattered as the Twin Cities' suburbs.

Luckily, Kollman quickly found the Department of Geography. With its unique undergraduate major in biology, science, and the environment, geography was a place, Kollman says, where disciplines come together in a way that was relevant to his interest in urban planning.

## Mixing perspectives

"A good planner needs to be able to see things from different angles and come up with a variety of solutions," explains Kollman, who graduated last spring. "The geography degree gave me a great background, from the history of cities and the urban social fabric to today's issues regarding population pressures, environmental degradation, and smart growth."

Best of all, his program gave him the ecological context that he knew would be essential for addressing problems that city planners face. "My interest in biology has a lot to do with environmental issues, land preservation, wildlife conservation, and overall sustainability, especially in urban areas," Kollman says. "With respect to issues like sprawl and brownfields, a biology background will help me investigate unforeseen consequences to the natural environment and develop things like environmental impact statements."

Looking back on his time at Minnesota, Kollman says he is impressed that one of the country's top geography programs was so hospitable to undergraduates. "I really enjoyed the close-knit

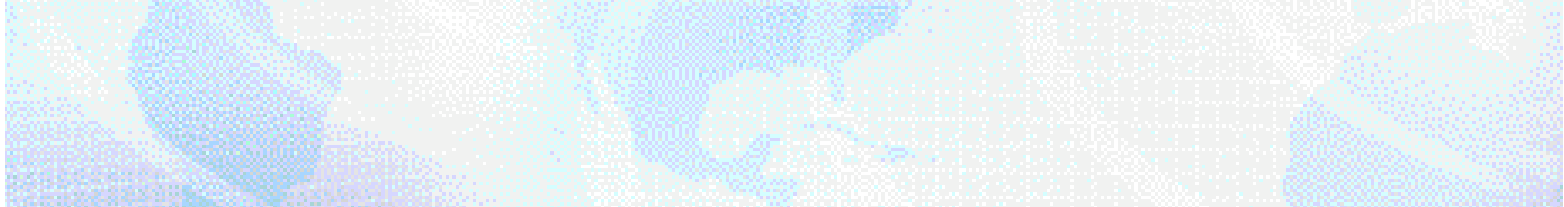
the challenges of brownfield redevelopment. And in connection with a planning class, he worked with the Sierra Club on a project to generate public response to a development proposal affecting neighborhood savannas in Maplewood, Minnesota.

Currently, Kollman is working at the University on the National Historical Geographic Information System, a National Science Foundation-funded project to make aggregate census data accessible in a GIS framework for historical population research. His job is to make sure maps are accurate. He also is doing an internship in city planning for the City of Woodbury, Minnesota, while he is completing his senior geography paper analyzing livable communities.

Kollman's next step is a master's degree in planning. Ever cognizant of the need to think across disciplines, he plans to complement that work with an M.B.A. to help him understand the "underlying business and economic forces [that] guide development and planning within urban areas as well as private real estate development."

Kollman hopes, ultimately, to put his skills to use in planning the future of those parts of cities most steeped in the past. "Ideally, I would like to work in a large urban setting, especially in the older core of a city," he says. "I have a lot of interest in redevelopment of older uses, addressing the economic and environmental challenges that often go along with redeveloping within the urban core."

Vibrant, economically balanced, and environmentally sound urban cores are key, says Kollman, to a sustainable future. And he wants to be part of their revitalization. ■



# The layered world

Vinay Gidwani studies the underside of globalization



When he was growing up in Delhi, India, in the 1970s, Vinay Gidwani saw his city as a study in stark contrasts: newly constructed buildings abutting slums and villages, members of a successful middle class living amid large swaths of poverty.

His parents taught him to appreciate the gravity of what he saw. His father, a psychologist who came from a well-off family near Karachi, Pakistan, had lost everything during the violent partitioning of India and Pakistan in 1947. His mother was a gynecologist who often provided free care to poor women. “My parents started from modest backgrounds. They always emphasized seeing who’s below you in society rather than who’s above,” says Gidwani, now an associate professor in the Department of Geography and jointly appointed in the Institute of Global Studies.

It’s for that reason that Gidwani grimaces when he encounters best-selling mainstream accounts of globalization. Public intellectuals like Thomas Friedman credit globalization for rapid economic growth and poverty reduction in countries like India and China. Globalization, they say, transforms developing countries, raising standards of living and bringing previously unknown levels of peace and prosperity. Gidwani knows firsthand that these accounts don’t tell the whole story.

## Globalization reconsidered

Friedman’s success stories tend to come from a relatively small segment of the urban population—an increasingly affluent, educated middle class whose employment is tied to the global movement of capital and work, often for multinational corporations. “But there’s a raw end, an underside, of globalization,” one that disproportionately affects poor urban residents in the developing world’s megacities, Gidwani says. Many recent rural-to-urban migrants who have tenuous access to housing, sanitation, basic municipal services, and employment in their urban destinations.

Delhi is illustrative: 300,000 to 500,000 migrants flow into the city annually, mostly to toil in the informal sectors of the urban economy that are not counted in India’s gross domestic product. Their work and their daily existence are fraught with hardship and insecurity. Yet their abject work and living conditions rarely gain media attention amid the glowing reports of globalization.

Not for long, Gidwani hopes. About four years ago, he and research partner K. Sivaramakrishnan, a University of Washington anthropologist who recently accepted a position at Yale University,

began studying the experiences of rural migrants in urban areas. The goal, Gidwani says, was to better understand those overlooked populations and see how their experiences reveal larger patterns of globalization. They wanted to see whether urban work and life experiences allowed migrants to accumulate economic and political resources that could be deployed in rural areas to contest social hierarchies there, and, similarly, whether rural resources were being put to use to negotiate urban existence.

Rural-to-urban migrants straddle the two realms, so they help geographers answer questions about the rural-urban relationship. How do rural and urban labor markets influence each other? Is urban migration a way for groups to gain social and economic mobility or challenge existing caste hierarchies in rural areas? Does the concentration of rural migrants in urban areas raise their political consciousness?

What Gidwani and Sivaramakrishnan found surprised them. Expecting to find that rural workers gained a sense of class consciousness in cities and worked to resist hierarchies in both cities and rural areas, the two found a much more complex dynamic among migrants to urban areas.

## Throwing off the shackles

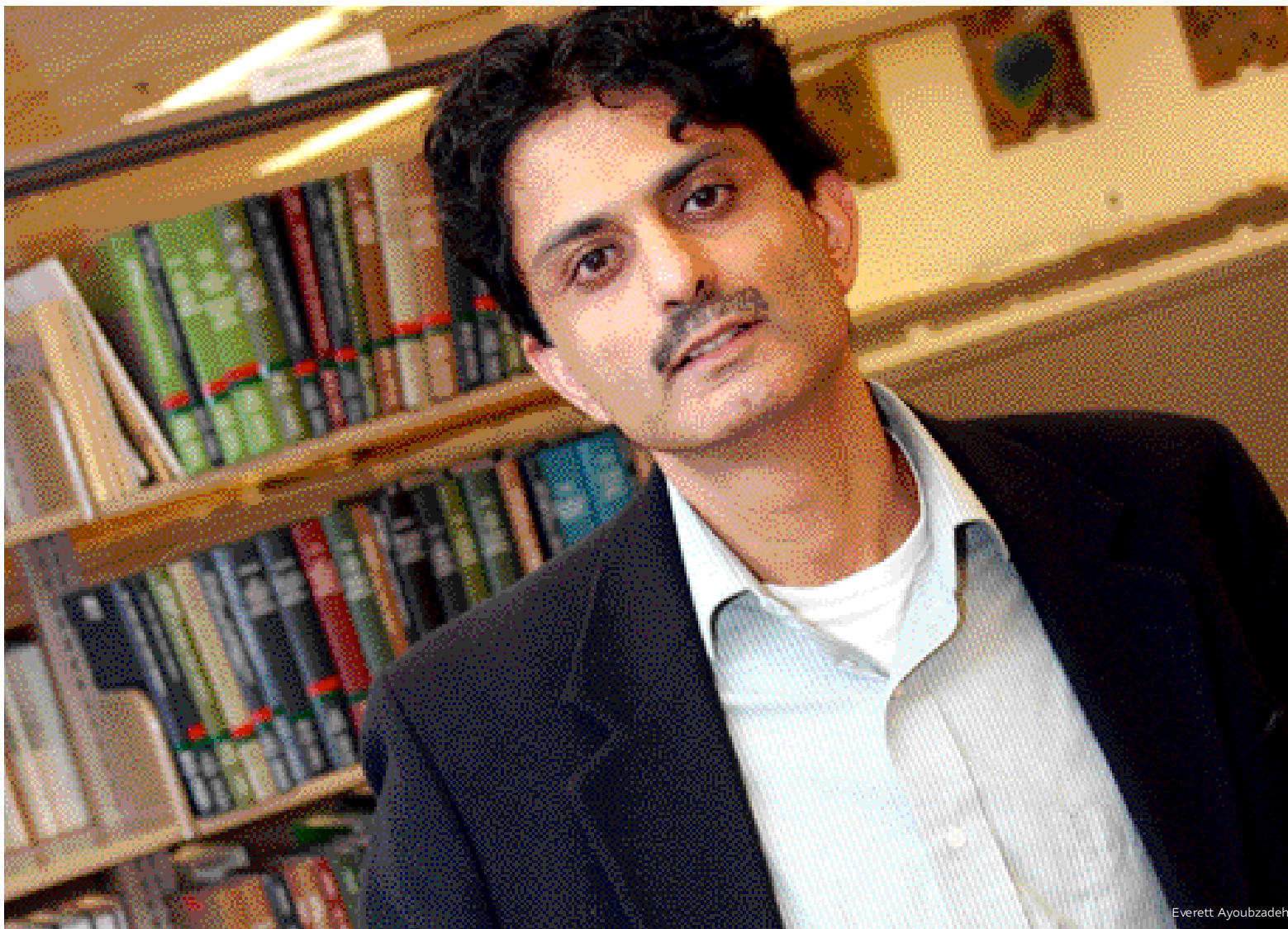
Defying economic wisdom, the rural poor sometimes migrated to cities even if it meant a diminution in their net income. Migration, Gidwani says, was often driven by noneconomic factors such as the desire for anonymity or escape from rural hierarchies that had locked them in rigid positions of subordination.

Counter to expectations that movement to urban areas might stimulate political activism, they found that migrants often tried to advance within, rather than challenge, existing hierarchies. Thus, urban migration could actually heighten conservatism. When they did resist middle-class norms, Gidwani says, it was often through dress, speech, demeanor, and other forms of cultural expression rather than overt resistance.

But those subtler forms of resistance, he’s found, have nonetheless been significant. Even if they aren’t directly challenging the hierarchical system, newly arrived migrants have run into opposition, sometimes fierce, from city residents whose employment is more deeply tied to global flows of capital and who have radically different lifestyles.

In his current research on urban space and the urban underclass in India, Gidwani is studying the impact of the post-1991 liberalization of India’s economy on larger patterns of movement






Everett Ayoubzadeh

to and from urban areas, on the structure of regional labor markets in India, and, finally, on the politics and splintered ecologies of urban life in megacities like Delhi.

His findings, he hopes, will culminate in a book (*Eviscerating Urbanism*) and contribute to a larger body of knowledge that will help us understand how and why globalization produces an uneven landscape where the privileges of global integration and interdependence accrue to a minority. Gidwani says that phenomena he sees in Delhi—the daily travails of living and making a living, and emerging conflict over uses of space between the city’s affluent and underprivileged residents—also have occurred in Bangkok, Manila, Mexico City, and other major cities.

To collect the data he needs to make his arguments, Gidwani often spends long stretches of time living in rural and urban Indian communities. On sabbatical during the 2007–08 school year, he will return to the city of his childhood to live and work

alongside those whose voices he hopes will one day inform dinner table and cabinet table discussions of globalization. (A book based on his earlier research—*Capital Interrupted: Development, Agrarian Change, and Politics of Work in Western India*—is forthcoming from the University of Minnesota Press.)

It’s exhausting, time-intensive work, but Gidwani says that globalization can be truly understood only when academics have firsthand experience of the economic processes and lives they write about. “Without the vital but unremarked contributions of poor migrants, cities and the infrastructure of urban life would crumble. It is the obligation of academics who work on urban globalization to witness their struggles and aspirations—and to ask which lives are considered worth caring for and which lives are treated indifferently. Where is the justice?” 

# The giving trees

Physical geographers like Susy Ziegler are helping Minnesotan

For physical geographers like Susy Ziegler, there's no such thing as being unable to see the forest for the trees. Indeed, it's only by immersing yourself in those details, Ziegler says—in lake sediments, pollen, charcoal, macrofossils, tree rings—that you can really understand what an environment was, is, and can be.



If you know how to read them, she says, those details will tell you stories about a landscape's past: tales of blazing fires and the regeneration that followed, of decades of gradual climate change and its lasting effects.

These are stories we need to hear, says Ziegler, an assistant professor. "Understanding vegetation response to past climate and disturbance regimes helps predict the impact of environmental change on future vegetation patterns. If we can understand the past, we can manage land, forest, and water resources better; we can understand the influence people have had on vegetation and better think about what kind of environment we want—and what we want our protected land to look like."

Take, for instance, the region in southeastern Minnesota where the Zumbro River and Weaver Dunes abut the Upper Mississippi River Valley—a complex landscape made up of wetlands, tributaries to the Mississippi River, terraces, and upland sand dunes. Rare, threatened, and endangered species make their homes there. And sundry groups of people have vested interests in the region and its future for agriculture, recreation, conservation, water management, transportation, and utilities.

With the help of a grant from the Center for Urban and Regional Affairs Faculty Interactive Research Program, Ziegler is examining the physical characteristics and dynamics of this Minnesota landscape. She's finding out about its past and learning how humans have already affected the area. Based on her findings, Ziegler and her research assistant, Mary Williams, will propose changes in land-use planning and policy that best support the landscape's role as wildlife corridor, hunting and fishing ground, food source, and wastewater treatment area.

In conducting her research, Ziegler is carrying on the department's tradition of studying the connection between vegetation and its larger environment—factors such as climate, landforms, soils, nutrient cycles, and historical events.

Other physical geographers in the department are engaged in similar work. Kurt Kipfmüller conducts research on climate change in Itasca State Park and the Boundary Waters Canoe Area Wilderness and its effect on patterns of vegetation there. Bryan



Kelly MacWilliams

Shuman studies the effects of fire and climate change on the vegetation history of the Big Woods of southern Minnesota. Kathy Klink examines variations in wind speeds over space and through time in Minnesota.

Together, these scholars are constructing the knowledge that Minnesota residents need to make sound decisions about how to preserve and maximize the quality of open space and undeveloped land in the state.

A photograph of a lake in autumn. The water is calm, reflecting the sky and the surrounding trees. The trees have vibrant orange and yellow leaves, while some are bare. The sky is a clear, pale blue. The overall scene is peaceful and scenic.

make wise decisions


“If we can understand [vegetation response to past climate change and disturbance regimes], we can manage land, forest, and water resources better: we can . . . better think about what kind of environment we want—and what we want our protected land to look like.”—Susy Ziegler

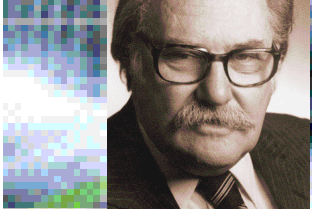
George Peters

Sharing their findings with Minnesota students in the classroom, Ziegler says, is an important part of that process. In a course called Biogeography of the Global Garden, Ziegler teaches students to understand in historical perspective the relationship of plants and animals with their larger habitat, including climate, soils, landforms, glaciers, and long-term environmental change.

“It’s a challenging and fun class to teach,” Ziegler says. “We take an evolutionary perspective, looking at change over a range of time scales from millions of years to seasonal cycles. We discuss current events such as the spread of bird flu and the SARS epidemic from a geographic perspective. And we cover a range of topics to help students become better informed global citizens who think about how their choices affect the environment.”

Ultimately, Ziegler hopes, the course will prepare a generation to think intelligently and responsibly about how to use untapped land. That’s an ambitious goal, but the class is a good beginning—more than 500 students, global citizens all, enroll annually in the course.

“We hope the class will inspire students to be excited about geography, explore the world around them, and embark on projects that will help them understand science and make the world better,” Ziegler says. “That’s what geography education is all about.” 



# The Lukermann legacy

Fred Lukermann, professor emeritus of geography, began his life at the University in 1940 as a freshman. After serving on the faculty of the Department of Geography, he led the College of Liberal Arts as dean from 1978 until his retirement as dean in 1989. As dean, he was known for his commitment to cultural pluralism and interdisciplinary study; he led efforts to gain recognition and support for ethnic studies and women's studies. In 1968 he created the University's Center for Urban and Regional Affairs. Fred and his wife, Barbara, continue to reside in the Twin Cities.

On these pages, several former students remember Lukermann's inspirational teaching, his maverick intellect, his leadership in his discipline and in the College of Liberal Arts, his unerring support for students and for principles of equity and diversity, and his grace, humor, and generosity—not to mention his mustache.

By John Adams

You don't meet Fred Lukermann—you encounter him. My encounter occurred in March 1961 when I was a first-year grad student in economics. I registered for Fred's economic geography course, which my friend Fred Zimmerman had recommended. "This guy is really something," Fred exclaimed, and he was right. Standing about six-three, well over 200 pounds, full beard, strikingly handsome, knee-high riding boots—Fred looked like he'd just returned from the field, maybe East Africa, the Hindu Kush, or (as it turned out) Anatolia.

My economics curriculum emphasized models that typically assumed that Y was some function of X, etc. Fiddle with X, and you change Y. But Fred knew the world was complicated, with everything depending on everything else. He'd lecture and sketch on the blackboard about the iron and steel industry, or the cement industry, or the flour milling industry, or the Upper Midwest railroad industry, starting with A, moving on to B, then C, and so on. And when the bell rang (we had bells in those days), you realized that he had been describing the elements and interactions of complex systems of causes, effects, and feedbacks, with a level of complexity and ingenuity that enthralled those of us who like to think that way.

In the late 1950s Fred was a full-time instructor in the geography department and was becoming a leading intellectual light contributing to the incipient "quantitative revolution" that was overtaking American social science in general and geography in particular. His theoretical writings inquired: What kind of knowledge is geographical knowledge? What did Herodotus have to say? How about Emanuel Kant? He published a string of well-received papers (e.g., "The Concept of Location in Classical Geography," "The Role of

Theory in Geographical Inquiry," "On Explanation, Model, and Description") that placed him on the frontier of geographical research of those days—just as I happened along.

In the classroom, the seminar, and the field, Fred was endlessly stimulating. We were a smart and cocky bunch, but his knowledge impressed us as encyclopedic. He seemed to have read everything, not only in physical and human geography, but also philosophy history, geology, economics, anthropology, the history of technology, and Martin Luther's place in Reformation history. For those of us who arrived in grad school with old-fashioned undergraduate liberal arts educations, he provided steady encouragement and useful advice.

We wanted his approval, and he was always generous in providing it—even to those who perhaps deserved something less than they received. Fred knew how to adjust the bar depending on how high we could jump. He took us into the field, and after long days exploring and discussing the historical geography of the Mississippi Valley in places like Nauvoo and Galena, it was Fred who introduced us to the pleasures of drinking room-temperature Jack Daniel's from plastic cups in cheap motel rooms.

It was Fred who invited me to change my Ph.D. major to geography as I became disenchanted with my earlier path. I was his first Ph.D., followed by 20 more—three of us later elected to the presidency of the Association of American Geographers. When I received my degree in 1966, a phone call got me an excellent position at Penn State, from which the Minnesota department lured me back in 1970. Fred my teacher became Fred my colleague.

When our department was ranked "number one" by the National Research Council survey in the early 1980s, most of us felt that much of the basis for that accolade rested on the intellectual vitality, program breadth and depth, and scholarly performance of faculty members and students that Fred's leadership had nurtured over the previous two decades.

Fred came to the University of Minnesota as a student in 1940, retired from the Department of Geography in 1991, then taught part-time for three more years. At a time when many have lost sight of the basic mission of the university, Fred understood better than most what it was all about. The generosity that he and Barbara have showered on our department will make it possible for others to experience the personal and professional benefits that came to me. He provided me with a lifetime of excellent example, and I am extremely grateful. ■

*John S. Adams is professor emeritus of geography, planning, & public affairs at the University, where he was awarded the Fesler-Lampert Chair in Urban and Regional Affairs.*

### Ronald F. Abler

Fred Lukermann seems to possess a pedagogical philosopher's stone. He has the ability to transmute base metals into something noble, and he has done so not only in my own case, but in others as well. Sometimes when I'm in need of a dose of humility, I recall how unpromising I was as academic material when Fred first began to work his pedagogical magic on me. That is indeed a sobering exercise, and a testament to his abilities and faith. Fred's appreciation of diversity extends to support for individuals who do not fit the customary mold, to the great benefit of a fair share of his students and advisees, and to the discipline.

Teachers are widely believed to be people who can provide answers. Fred performs the pedagogical equivalent of showing people how to fish instead of giving them a fish. He makes his students formulate their own answers by asking questions. [Fred's students learned] to see geography and their individual research and teaching as part of a much bigger intellectual enterprise. They were encouraged to establish their own intellectual independence, confident of their place in scholarly as well as in worldly contexts.

*Abler (B.A. '63, M.A. '66, Ph.D. '68, geography) is secretary general and treasurer (since 2000) of the International Geographical Union (IGU), which he previously served as a Vice President (1996–2000) and as a member of the IGU Commission on Communications and Telecommunications (1984–96). He was executive director of the Association of American Geographers (1989–2002) and director of the Geography and Regional Science Program at the National Science Foundation (1984–88).*

### William Craig

Fred Lukermann set me on the path to everything that matters to me. In the spring of 1963 I was at loose ends. I had started the University in 1960, had taken a full set of courses for nearly three years, but had no passion and no idea what I might do with my life. I asked a friend to recommend a course. Geography 41: Economic Geography lit a fire in me that burns today. Fred Lukermann helped me learn what is happening in various places around the world and, more importantly, to understand the connections between natural resources and society. Not every place that has resources is rich and not every place that lacks them is poor. Much depends on human skills and effort. I switched majors and went on to get advanced degrees in geography from the best department in the country.

*Craig (B.A.'67, math; M.A.'72 and Ph.D.'80, geography) is associate director of the Center for Urban and Regional Affairs and past chair of the University Consortium for Geographic Information Science, the Urban and Regional Information Systems Association, the Minnesota Governor's Council on Geographic Information, and the MetroGIS Coordinating Committee.*

### Everett G. Smith

From my days in the department from 1956 to 1961, I remember Fred Lukermann for his profound intellect, always evident but never flaunted; the great weekend parties the Lukermans hosted for graduate students with gatherings that invariably wound up in heated but memorable conversations about the meaning and utility of geography as a discipline and science; his innate ability to get to the heart of issues with pertinent and rational questions; his knack for explaining subjects; his infectious good humor; and his willingness to listen with calm to students and colleagues, regardless of how mundane and absurd their comments.

*Smith (Ph.D. '62 geography) is professor emeritus of geography, University of Oregon, Eugene.*

### Mary Cunningham

I am often asked, "Why did you ever move to Minnesota?" Fred Lukermann is the reason I'm in Minnesota. While teaching in Farmingdale, New York in 1965, I came across information for a National Defense Education Act Institute in Geography at the University of Minnesota. What a delightful and intense learning experience for a "city kid"! I went home enamored of Minnesota, the University of Minnesota, and Fred Lukermann, mustache and all. Professor Lukermann was an iconoclast. He loved confusing his students in order to get them to think—inside, outside, upside, downside, under or around the box. Coming from seminar sessions I would have a hodgepodge of thoughts and notes and many more questions than answers. But oh how I enjoyed the mental confusion!

*Cunningham (M.A. '67, geography) has been a teacher most of her adult life. Most recently she was Winona State University liaison in South Washington County Schools and K-12 social studies curriculum coordinator for South Washington County Schools.*

If you wish to honor Fred Lukermann, there's no better way than to give to the Fred Lukermann Geography Fellowship Fund. Your contribution will help us continue Fred's legacy of dedication to students.

To make a tax-deductible donation, you may write a check payable to the University of Minnesota Foundation, fund #6737, and send it to:

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# Topical geography

Steven Manson examines the earth's skin to discover what

Steven Manson's research is "topical" in more ways than one. Manson trains his eye on the earth's "skin"; using a technique called "agent-based modeling," he examines the rate at which humans are altering the land surface of planet Earth. Given the alarming pace of change in the earth's surface, and given the increasingly charged debates about global warming, his work couldn't be more timely.

Manson seeks to help people understand what is happening to the earth, why it is happening, and what we might do to avert potentially disastrous changes. "The major intellectual challenge," he says, "is trying to come up with an approach that captures the complexities of human/environmental interactions."

Since joining the Department of Geography in 2002, Manson has established himself as a rising star, working in an area that professor and department chair Robert McMaster has called "of extraordinary intellectual and practical importance." And kudos are coming in. Last spring, he was awarded a prestigious 2006–2008 McKnight Land-Grant Professorship. A New Investigator grant from the National Aeronautics and Space Administration (NASA) followed a few months later.

In essence, what Manson does is create virtual landscapes based on information about particular geographic regions. In a study of the Yucatan Peninsula in Mexico, he collects a variety of data to describe the region, including household interviews, archival material, and satellite images. Feeding the data into a software program of his own creation, he models patterns, processes, and effects of environmental change within the region and places it in the context of global environmental change. In other words, he finds global patterns in local and regional phenomena.

## Weighty stuff

The transformation of the earth's land is happening at a mind-boggling pace, says Manson, affecting everything from the price of a cup of coffee to the lives of polar bears. "Land change is the key component of climate change," Manson explains. "A quarter to a third of anthropogenic, or human-caused, greenhouse gases originate in farming practices, including deforestation."

This is all pretty weighty stuff for a kid who grew up in the deep woods of a Canadian pulp mill town. As a boy in Kamloops, British Columbia, four hours inland from Vancouver, Manson was blessed with a streak of geekiness that longed for an outlet. "I always had something of a technical bent," he says. "I was one of



Kelly MacWilliams

those guys who was forever taking apart toasters, much to my mother's chagrin." Like many aspiring young scientists of his time, Manson was fascinated with computers as a boy in the '80s. Unfortunately, his high school had just two of them, and, combined, they had the approximate power of a modern cell phone.

Manson left Kamloops after his junior year to attend an international baccalaureate program at the Lester B. Pearson College of the Pacific in Victoria, B.C. There he was introduced into a wider world of social and scholarly concerns. Two hundred teenagers from 76 nations gathered at Pearson for a two-year program that included a strong public service component. Through this public service Manson developed a serious concern



Kelly MacWilliams

for the state of the environment, which he carried with him to the nearby University of Victoria.


At Victoria, Manson was increasingly drawn to the growing link between geography and technology—a link that would one day find expression in programs like MapQuest and automobile navigation systems. And he grew increasingly aware that “technology, in and of itself, is rather useless unless we use it to ask or answer questions about the world.” Working “in the geospatial world” for Microsoft’s Encarta systems, he decided to chase after those questions in graduate school at Clark University in Worcester, Massachusetts—where a professor named Billy Lee Turner II urged him to pursue his studies of the Yucatan Peninsula.

Working with colleagues and researchers across the social and natural sciences, Manson began collecting data for a virtual landscape program he named SYPRIA (Southern Yucatan Peninsular Region Integrated Assessment). The program could model not only actual current land use but also probable consequences. SYPRIA has since been renamed HELIA (Human Environmental Land Integration Assessment) to suggest the broadening of studies beyond the Yucatan Peninsula to embrace other geographies (e.g., in the Twin Cities). The program remains a

powerful new way to examine interactions among individuals, organizations, and large social and environmental systems.

Thanks to the Land-Grant Professorship, Manson will be able to use his modeling program to examine the problems of urbanization in the Twin Cities with the same measure of detail that marked his study of deforestation in the Yucatan. He’s already begun working with staff of the Twin Cities’ Metropolitan Council and the University’s Center for Urban and Regional Affairs to begin collecting data for his future studies.

He will be using his NASA grant to continue his study of “the patterns, processes, and impacts of urbanization in the United States and deforestation in Mexico.” And he already has begun implementing the K-12 outreach component of the grant: He’s working with the St. Paul–based science education group Eco-Education to create a curriculum centered on human-environment research, geographic information science, and remote sensing. The outreach activities will include a new University course and K-12 classes offered in collaboration with Eco-Education.

“These outreach programs are as exciting as the research,” says Manson. “And the research is pretty darn exciting.” 



## MAKING SENSE

# of the census

## Unlocking the potential of two centuries of data collection

Understanding of many hot-button issues of this century—war and terrorism, political and religious divisions, environmental degradation, social and economic inequalities—begins with demographic data. For years, social science researchers, educators, business managers, government officials, journalists, and others have relied on census data to examine growth and change in American populations and to shed light on the associated cultural, social, and economic issues.

They have used aggregate data tables to describe characteristics of states, municipalities, and neighborhoods. They have taken snapshots of populations and noted shifts and trends. But they have been limited in their ability to access, analyze, and draw conclusions from the data.

At the turn of the century, massive amounts of data covering the period 1790 through 2000 existed, but the data were scattered across dozens of archives and stored in incompatible formats in different media. Only a small fraction of the data was available on the Internet. High-quality census boundary files existed for only the 1990 census. To study change, researchers had to develop their own maps at great expense.

The challenge: to unlock the potential of two centuries of data collection and make the information broadly accessible not only to researchers but also to students and the public. This would be a project of unprecedented magnitude. Skeptics said it would be too big, too complicated, and too costly.

Enter the University of Minnesota.

### The project takes off

The University of Minnesota Population Center had already developed the most powerful and widely used tool for access to census microdata (individual census records), the Integrated Public Use Microdata Series (IPUMS). The geography department, with its Geographic Information System (GIS) expertise, was an ideal partner in the project. An idea took shape, then a proposal.

In 2001 the University applied for and received a \$4.8 million, five-year grant from the National Science Foundation to develop the National Historical Geographic Information System (NHGIS). Thus began a project that would cull and organize 750 gigabytes of data from over a million separate source files to create what is being called a priceless data archive—a comprehensive, accessible, high-precision database of U.S. summary data on population, housing, agriculture, manufacturing, business climate, voting patterns, and other georeferenced statistics.

The system is an enormous boon to social science researchers, as well as students, public officials, and the merely curious. It can yield up data to advance understanding of everything from immigrant and ethnic settlement patterns to patterns of residential segregation; from the decline and renaissance of central cities to suburbanization and urban sprawl, rural depopulation and agricultural consolidation; from changes in ecosystems to issues related to transportation, public health and epidemiology, electoral politics, and criminal justice.

“The database opens a new range of powerful approaches to familiar problems, broadening the scope of local and regional analysis and exploring variations across time and space simultaneously,” says geography department chair Robert McMaster. “All users, from high school students to research scientists, will be able to adopt comparative and historical perspectives.”

### Taking the measure of communities

Want to know how immigration has changed your community? Or how your community’s housing stock, health, or voter participation have changed over the past 50 years? Or how your city’s ethnic makeup or income distribution compares to those of Sacramento, El Paso, or Queens? NHGIS puts such information at your fingertips.

Data that previously required archival specialists to spend days digging (if the data were available at all) are now available at [www.nhgis.org](http://www.nhgis.org). Small data files pop up instantly; large files take no more than a few minutes.

Suppose you want to study residential segregation and urban racial and ethnic change across comparable cities within regions or across the nation. Most segregation studies over the past 40 years focused mostly on a single moment in time or on short-term change. Gathering complex data sets across census years or tracts was just too labor intensive.

NHGIS opens new avenues for studying these patterns. Researchers can now study trends such as changing residence patterns rather than relying on simple snapshots of segregation at a given time. By linking individual census records to tract-level data over time, analysts can even assess how neighborhood change is associated with individual behavior (such as movement between neighborhoods), or study how neighborhood characteristics affect and are affected by the presence of businesses. (A case in point might be the proliferation of restaurants along the stretch of Nicollet Avenue in Minneapolis now known as “Eat Street.”)





Or suppose that you're interested in the impact of AIDS or the incidence of certain cancers in your community—and the associated mortality rates among different populations. Such epidemiologic understanding can be gleaned from census data that allow you to trace disease patterns and assess the disparate effects on neighborhood subpopulations over time. And the results of such analysis can form the basis not only for good individual decision making (about where to live, for example) but also for good public policy (public health alerts and interventions, or environmental cleanup).



### A new educational toolbox

Through *Social Explorer*—based at Queens College of the City University of New York ([www.socialexplorer.com](http://www.socialexplorer.com))—NHGIS is bringing the excitement of discovery into secondary school classrooms as well as to a wide range of college courses, from geography to ecology. Designed for students and teachers, *Social Explorer* features an online historical mapping feature to display demographic changes since 1790. Using the system, teachers can design animated maps showing historical changes, conduct exercises using the data, and generate new understanding of populations trends.

### Not for academics only

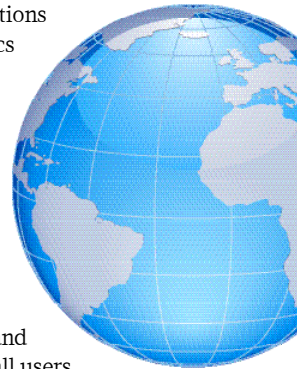
NHGIS has been warmly received by journalists, community planners, and the private sector. News organizations are able to provide audiences with local statistics and thematic maps displaying thousands of numbers in a single image. Planners use local area statistics as an essential tool for decisions on education, transportation, care of the aged, and other community planning issues. And small businesses, as well as large firms, rely on small-area census data to conduct market research.

"Because NHGIS offers the opportunity to assess demographic and economic trends at the local level, all users will be able to move beyond static analysis and better prepare for the future," McMaster says. "In short, this project not only provides fundamental infrastructure for the social sciences, but also promises to expand the use of such material by the public."

Although the five-year grant is ending, work will continue as the University maintains the database, with a goal of further refining the data access system and expanding the number of data files available within the system. Responding to developments in geographic standards, statistical infrastructure, and information technology, the University has submitted a funding proposal for system upgrades.

Additional funding will support two main tasks. One is to realign NHGIS boundary files to ensure compatibility with new Census Bureau standards and to add geographic levels—including block, congressional district, and zip code areas. The second is to incorporate the American Community Survey, which is replacing the long Census Bureau form. ■

*The project's principal investigators are the University's John Adams, Bill Block, Mark Lindberg, Robert McMaster, Steven Ruggles, and Wendy Thomas.*



# The road to geography

We asked Rob Britton (B.A. '73, M.A. '76, Ph.D. '78, geography)—who has just announced his retirement from a long career as a communications executive for American Airlines—to send us his reflections on his nine or so years in the Department of Geography.

Britton, who grew up in Minnesota, has lived and worked in Fort Worth and Dallas, Texas, for many years. But he returns regularly to the Twin Cities for a tonic dose of Midwest air. When we contacted him to ask for an essay, he exulted, “Hooray for reconnection, and with an assignment to boot!”

In a letter to the college a few years back, Britton said, “The words *University of Minnesota* prompt a flood of images: running across the field in Memorial Stadium, at age 9, on a snowy night in 1961; learning about the etymological origins of *hoosegow* in Larry Mitchell’s English class; standing at the corner of Oak and Fulton, hitchhiking to my afternoon job . . . ; burrowing into the sub-basement of Wilson Library to write my dissertation. . . . These are just a few images from a mental file of thousands.”

A few more follow.

By Rob Britton

My traveling-salesman father was my first geography teacher. He was highly social, and it got lonely on the road, so he relished a young rider in summers. His livelihood depended on Midwest farm and town economies—when they did well, he did, too. He grew up in rural Montana; he knew crops and livestock, and could explain it all to his suburban son. He came of age in a poor neighborhood in Chicago and thus had a basic understanding of how to read urban health from clues in the landscape, and from visiting with buyers at, say, Herberger’s in St. Cloud, or a little dress shop in Hibbing.

At the U, it took three tries (political science, sociology, and journalism) before I understood that geography fit me best. My first course, physical geography from Professor Ward Barrett, seems in hindsight to have been an unlikely attractor: the MWF lectures were on closed-circuit black-and-white TV. Boring! But what brought it all to life were the TuTh tutorials by an energetic T.A. named Ken Smith and the positive reinforcement of an A on the midterm. The hook was set the next quarter, when a Canadian visitor, Andrew Burghardt, taught a 3,000-level course on his native land; I had traveled a lot in Canada in previous years, and the course validated much of what I saw.



Chet Snedden, American Airlines

Because I worked every afternoon and commuted (carless, by thumb), I wasn’t able to spend much time in the department. Still, there was a welcoming atmosphere, which attracted me to grad school after a year of hitchhiking, flying, and working around the world. And when John Adams called with news of a Bush Foundation fellowship, life really got sweeter.

The department boasted the nation’s top-rated geography faculty, and the breadth of talent and interests was remarkable. Three areas were especially interesting to me: a strong urban and regional interest anchored by the great John Borchert; a cultural focus rooted in rural landscapes, well advanced by John Fraser Hart and Cotton Mather; and a deep emphasis on economic development in poor countries, best represented by Phil Porter. I ended up in the latter camp, aiming to understand the role of international tourism in Caribbean economic development; it was a natural outgrowth of my fascination with travel.

A huge range of visitors made their way to the West Bank. Three come to mind. Peirce Lewis, a hugely talented observer of

# Moment of truth

By Dennis Maetzold (B.A. '64, geography)

**I think it was winter quarter 1961. Professor Cotton Mather was discussing the differences between the Carolinas in his Geography of the Eastern United States class. I remember thinking, "Hey, this is really good stuff." Shortly thereafter I changed my major to geography and away from a premed focus (never mind that organic chemistry just didn't click for me).**

That moment of truth in Professor Mather's class told me that I had a fascination for the land and its "whys." Why are Minneapolis and St. Paul different?

My interest in the whys of the land helped shaped many areas of my life. I joined the Navy to see the world (the sign in Dinkytown said I would). I didn't actually see all of the world, but I did see much of the Pacific and Southeast Asia and a large portion of the U.S. After leaving active duty, I spent 22 years in the Navy's Reserve Intelligence programs asking military whys. I also joined a large Twin Cities bank looking for branch bank locations asking not whys but wheres based on my study of American cities under Professor John Borchert. I later managed branch banks.

Love of geography carried over into my personal life. My wife and I travel the U.S. by car enjoying the prairies, forests, and mountains. We stop in small towns and walk down Main Street. We have the lunch special at a local eatery, and we stay at a drive-up-to-your-door motel. We ask ourselves, what makes this town tick?

When our daughter was young, we set a goal to visit every state with her by her 18th birthday. In August 1999 we accomplished this goal when we set foot in Anchorage. We think our love of the land rubbed off on her, although she said that she is writing a book about her travels to be titled "They All Looked the Same to Me." We think she is kidding, but she is a Carlson School of Management grad, you know.

In the end, I think my geography studies didn't create my interest in the land, but rather helped me put everything in context. I have answers to the whys. I know why Minneapolis and St. Paul are different—it's their geography. 📍

*Dennis Maetzold is a retired vice president of Marshall and Isley Bank and a former mayor of Edina, Minnesota. This essay is reprinted from "135 Voices," a collection of alumni memories published on the 135th anniversary of the College of Liberal Arts.*

U.S. urban places, visited from Penn State. J. B. Jackson, cranky but brilliant, came north from New Mexico to talk about the changing American landscape. And a fellow student, Rob Freestone, arrived from Australia and quickly became a "best mate"; after-school pitchers of 3.2 beer at Culla's lubricated some of the most memorable conversations of my graduate career. All three were compelling because they embraced real geography, without the diversions of excess ideology and goofy "theory" that were beginning to wash over social science.

Those years were truly a liberal education in the best sense. After my Ph.D., I lived the academic life for several years, teaching and doing research and some freelance travel writing. But for a range of reasons I departed the academy, headed to business school, and recycled myself into the airline industry. It was a good place to be—complex, geographical, and with the fringe benefit of free flying that still causes my geographer friends to drool. Much has changed, but I still think of myself as a Minnesota geographer. 📍

*Rob Britton retired in 2006 after nearly 20 years with American Airlines. He is now a marketing consultant and guest lecturer at business schools worldwide, including the University of Minnesota Carlson School of Management, University of Texas–Austin, Cambridge, INSEAD, and the universities of Toronto and New South Wales.*

## ROB BRITTON REMEMBERS JOHN BORCHERT

**"Though I departed academic geography in 1983 for the airline business, not a workday ends without me reaching back to John's lessons. An hour after learning of his death, I was studying a spreadsheet showing large losses across TWA's route network. I think he would have been proud of my ability to quickly convert columns of numbers into patterns on an imagined route map. Like most of you, I have been blessed with abundant time to learn from many teachers. Professor Borchert was the greatest teacher I ever had."**

*Read at the John Borchert memorial service, April 2001. To see the complete eulogy, go to*

[http://www.borchert.com/john/rob\\_britton.htm](http://www.borchert.com/john/rob_britton.htm).



Everett Ayoubzade

# Fallout

Moira McDonald studies the collateral damage of federal

**We all remember those images: stranded people awaiting rescue from New Orleans rooftops amid swirling dark water.** These images were searing reminders of human fragility in the face of natural forces. But as stories of those unable to leave the devastated area began to circulate in the media, economics and race relations emerged alongside meteorology and geography as explanations for the human fallout of a natural disaster.

For Moira McDonald, a doctoral student in the Department of Geography their plight raises some critical questions about race, class, and public policy.

McDonald has spent the past three years studying federal flood control and agricultural policies in the Yazoo Delta of Mississippi. Her work explores whether federal agriculture and flood control policy plays a role in perpetuating historical economic and environmental inequalities. "These programs do not exist in a vacuum to stabilize agriculture prices or improve the lives of farmers," she says. "They have social, economic, and environmental consequences."

In the culture of engineering, projects are often framed in stark bottom-line terms, McDonald says. "In calculating the costs and benefits of its projects, the Army Corps of Engineers inevitably makes value judgments about what kinds of land and what kinds of people need protection," she explains. "These questions go to the very heart of the issue of ecological and economic sustainability."

Just how those judgments get made is the focus of McDonald's work. McDonald studies the relationships federal agencies such as United States Department of Agriculture and the Army Corps of Engineers have with their local offices, members of Congress, and nonprofit organizations in the Delta. She also studies the culture of the area and how it shapes the ways people who work in regional offices interpret and implement directives from the agencies' Washington headquarters. Finally, she examines practices of large farming operations, the politics of race and poverty in the area, and the relationships of those interest groups to the federal agencies.

McDonald's sources have been as multifaceted as the topic she's taken on. With fellowship support from the University and the Environmental Protection Agency, McDonald has been able to conduct extensive on-site research. In trips to Washington, D.C., and the Mississippi Delta, she has gathered agency documents that will help her understand how federal agricultural and flood control policy have operated in the Delta. She's interviewed federal workers and the Mississippi residents—agency personnel, black and white farmers, and representatives of environmental and agricultural organizations—who are major stakeholders in federal projects. And she has used a wide range of tools—geographic information systems data, spatial statistics, census data, and water quality reports—to examine the relationship between flood and agricultural subsidies, social and economic inequalities, and environmental quality.

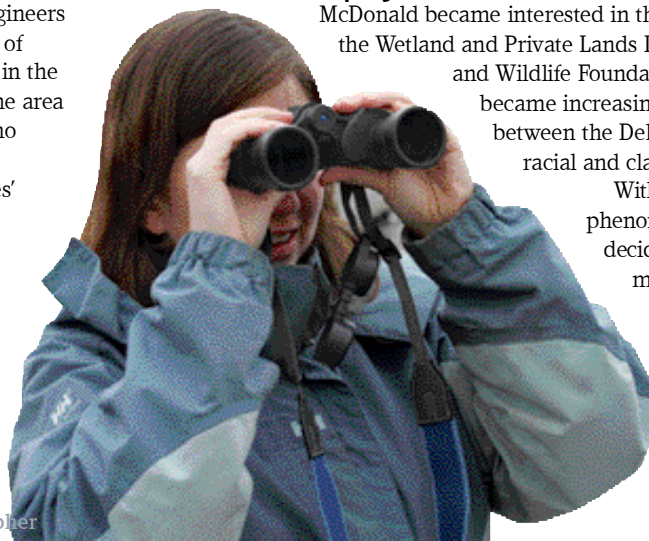
"I'm particularly interested in whether the number and amounts of agricultural subsidies differ in areas with different levels of flood protection," she says. "I also want to tease out the relationship between flood protection, agricultural productivity, farm incomes, and racial characteristics of the population."

Her initial findings suggest that despite the pervasive African-American poverty—with roughly 50 percent of the African-American population living below the poverty line—flood control and agriculture debates consistently obscure racial and economic inequalities by pitting environmental and agricultural interests against one another.

## A project evolves

McDonald became interested in these questions as the director of the Wetland and Private Lands Initiative of the National Fish and Wildlife Foundation in Washington, D.C. She became increasingly aware of the contrast between the Delta's rich ecology and its stark racial and class disparities.

With anecdotal evidence that these phenomena were related, McDonald decided to return to school to study more systematically the relationship between natural resources, social and economic inequality, and public policy.





environmental policy

Moira McDonald by the Mississippi River as it flows south from Minneapolis toward the site of her Yazoo Delta research.

Everett Ayoubzadeh

Eric Sheppard, McDonald's adviser, says her research helps to bridge the gap between human and physical geographers.


"There has been a tendency in the discipline in recent years for human and physical geographers to drift apart. Human geographers tend to neglect the significance of biophysical processes, and physical geographers often neglect the significance of social and cultural theory," Sheppard says. By examining the link between ecological and social processes, McDonald's work links those two geographical traditions.

McDonald has also brought a new rural perspective to the growing body of geography scholarship related to environmental justice, which looks at the disparate impact on human communities of the environmental consequences of human activity. Such work has focused almost exclusively on urban areas.

"Katrina forced a variety of state, local, and federal agencies to acknowledge that engineering cannot always overcome nature," says McDonald. "Inside the Army Corps of Engineers, the hurricane

precipitated a real examination of how decisions were made in the past and a rethinking of how they can be made in the future."

McDonald hopes to contribute to that reexamination by helping policy makers think more broadly and critically about the social and cultural context and implications of proposed policies. She'll do that by bringing her knowledge and perspectives to higher education classrooms, where, she notes, tomorrow's policy makers are spending their time today.

"I would like a teaching position where I can continue to examine natural resource use and conservation from an interdisciplinary perspective," McDonald says. "I want to bring students into contact with natural resource issues through direct involvement with local groups working to understand and protect wetlands and streams in their communities." 

# Accolades

for the Department of  
Geography 2005–06

**Bruce Braun** was invited to give the annual Cultural Geographies keynote address at 2005 Association of American Geographers meetings in Chicago on "Biopolitics and the Molecularization of Life." He spent part of his sabbatical year in the School of Philosophy, University of New South Wales, Sydney, Australia. Braun also received a McKnight Land-Grant Professorship.

**Phil Gersmehl** received grants from the U.S. Department of Education, NASA, and National Geodetic Survey to support research into early childhood spatial cognition and development of model educational materials for preschool mapping, middle-school social studies, junior high earth science, and high school global history and geography. He completed the book, *Teaching Geography*, published by Guilford Press, in 2006.

**Vinay Gidwani's** book, *Capital, Interrupted: Development, Agrarian Change, and the Politics of Work in India*, will be published by the University of Minnesota Press. He also received a McKnight Land-Grant professorship

**George Henderson** received a fellowship to study at the University of Minnesota Institute for Advanced Study in spring 2007.

**Kurt Kipfmüller** received the Andrew E. Douglass Scholarship for outstanding academic achievement in dendrochronology from the University of Arizona Tree-Ring Laboratory.

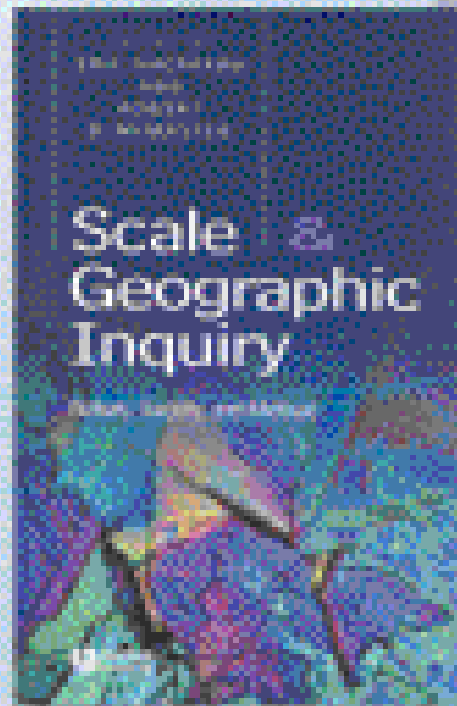
**Katherine Klink** served as secretary for the Association of American Geographers.

**Helga Leitner** completed her edited volume *Contesting Neoliberalism: Urban Frontiers* (with Eric Sheppard and J. Peck), published by Guilford Press.

**Steven Manson** received a grant of \$343,000 in 2006 from NASA's New Investigator Program in Earth-Sun System Science. This award is NASA's equivalent of the NSF CAREER award and is given to only 20 junior faculty members every two years. It is significant that Manson's research was essentially the only social science project funded in the 2005–2007 round. He also received a McKnight Land-Grant Professorship.

**Judith Martin** continues to manage her *Metropolitan Portraits* book series; volume #6 was published last summer and a proposal for volume #10 is under review. She was recently appointed, with John Adams, co-director of the Metropolitan Studies Consortium.

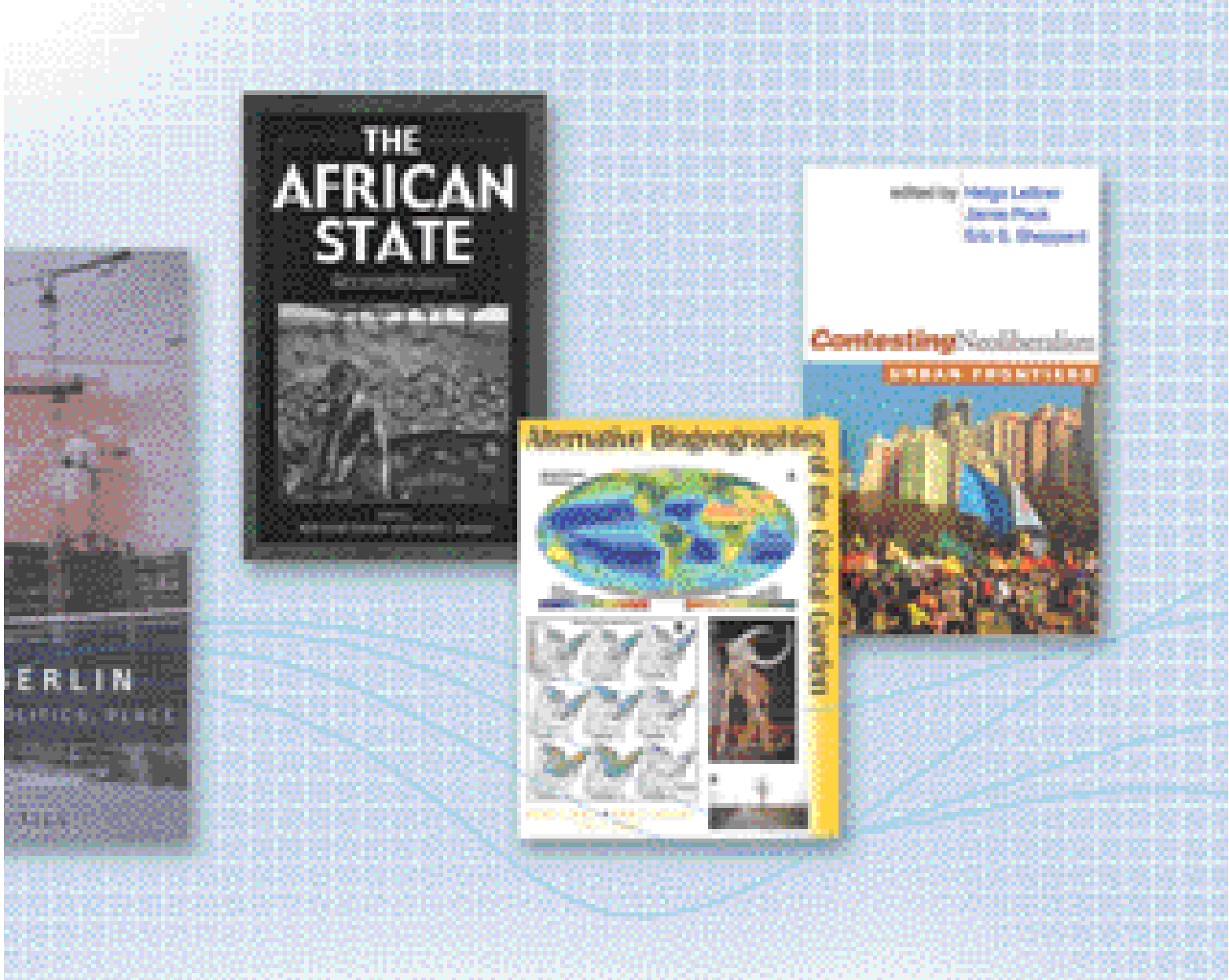
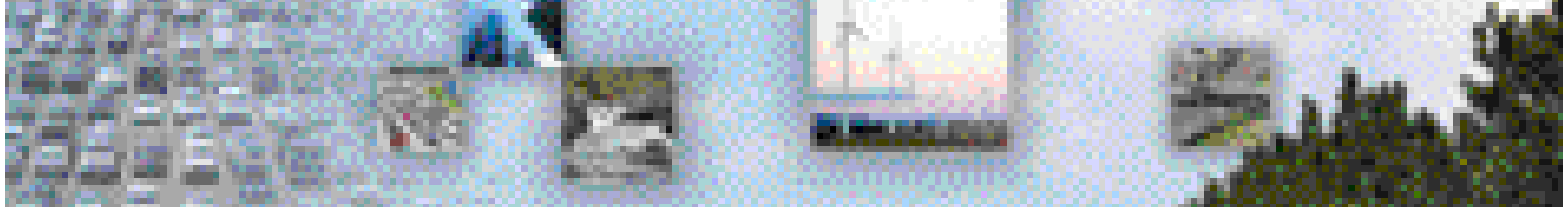
**Robert McMaster** published a book, *Thematic Cartography and Geographic Visualization* (along with Terry Slocum, Fritz



Kessler, and Hugh Howard). He was elected a vice president of the International Cartographic Association and was appointed to a term on the National Academy of Sciences/National Research Council Mapping Science Committee.

**Arun Saldanha** completed his work *Psychedelic White: Goa Trance and the Viscosity of Race*, which will be published by the University of Minnesota Press. He has received a fellowship to study at the University of Minnesota Institute for Advanced Study in spring 2008.

**Abdi Samatar** published his book *The African State: Reconsiderations* (Heinemann). He continues to appear regularly in the local and national media, such as *The NewsHour with Jim Lehrer*, for his expertise on East Africa, especially Somalia and Ethiopia.



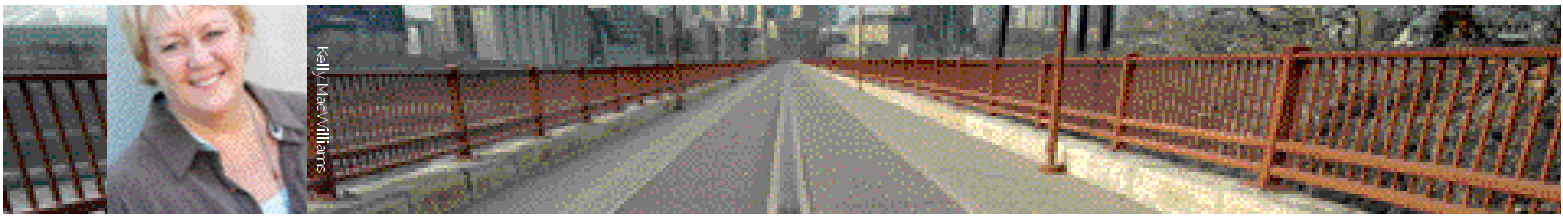
**Eric Sheppard** completed a year in residence at the Institute for Advanced Study at Stanford University during 2005–06. He also completed the edited volume *Contesting Neoliberalism: Urban Frontiers* (with Helga Leitner and J. Peck) and the second edition of *A World of Difference* (with former geography faculty member Philip Porter and graduate students Richa Nagar and David Faust), both published by Guilford Press.

**Bryan Shuman**, who received a University of Minnesota McKnight Land-Grant Professorship, published the *Atlas of Pollen-Vegetation-Climatic Relationships for the United States and Canada*. Bryan also received the William S. Cooper Award for an Outstanding Contribution in Geobotany and Physiographic Ecology from the Ecological Society of America.

**Rod Squires** continued his work for the Minnesota Society for Professional Surveyors as an expert witness in several court cases.

**Karen Till**, who recently returned to Minnesota after two years in the geography department at Royal Holloway in London, completed her book *The New Berlin*, published by the University of Minnesota Press.

**Susy Ziegler** received a \$24,000 grant from the Center for Urban and Regional Affairs (CURA) for a project, “Land-Use Policy to Conserve Resources in Southeastern Minnesota, 2006–2007,” and a \$31,000 grant from the College of Liberal Arts for a project, “Continued Integration of Three-Dimensional Visualization into Geography Education.”



Supporting Geography | **THE LAST WORD**

# A community of giving

Dear friends,

Last spring, I attended the geography department's lively year-end celebration, Ralph Brown Day. John Adams—who is profiled in this issue on page 2—gave the Golden Shovel Award to a deserving graduate student “who was able to shovel the most . . . .”

The good-humored display of camaraderie that ensued told me that this is a great department—one that not only stands tall in international rankings but also knows how to have fun. It's that good cheer, perhaps—not to mention the sense of shared enterprise—that accounts for the genuine sense of community.

That same evening, I met some students who talked about the exceptional education they are receiving in their Masters of Geographic Information Science program. They raved about the wonderful teaching and then launched into a deep discussion of the far-reaching implications of Google Earth ([earth.google.com](http://earth.google.com)). It occurred to me that such a site wouldn't exist had it not been for the pathbreaking work of geographers such as John Borchert and John Adams.

One of the students, Sarah Dolan, received the Outstanding Senior Paper award, and several other students received scholarships and graduate fellowships. As I joined in the thunderous applause, I realized that *this* was the department's center of energy and the source of its strength—the all-important connection between professors and their students.

These students and their peers will one day be responsible for how we live in and find our way through this century. They

will shape the communities we inhabit. Their efforts will determine the quality of the air we breathe, the water we drink, and the larger ecosystems we are a part of. Their leadership will help ensure a healthy environment for a sustainable planet.

I can't imagine a better investment than scholarships and fellowships for these emerging leaders. That's why I'm inviting you to join me in making an investment with both personal and global impact—a gift that will help students, and one that will help sustain and grow this esteemed department's contributions to the betterment of human communities.

If you wish to talk about giving opportunities, please be in touch. You may give to an existing fund, such as the Ralph H. Brown Fund, which provides funding for graduate and undergraduate research and study in geography; or you could establish a new fund (whose impact could be doubled if your gift qualifies for a match through the 21st Century Graduate Fellowship program or the Promise of Tomorrow Scholarship program).

On behalf of the department, I thank you for your generosity. I look forward to hearing from you! 📧

Mary Hicks, Director of External Relations  
612-625-5541 or [hicks002@umn.edu](mailto:hicks002@umn.edu)

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**UNIVERSITY OF MINNESOTA**

Department of Geography  
414 Social Sciences Building  
267 19th Avenue South  
Minneapolis, MN 55455

Phone: 612-625-6080  
Web: [www.geog.umn.edu](http://www.geog.umn.edu)

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