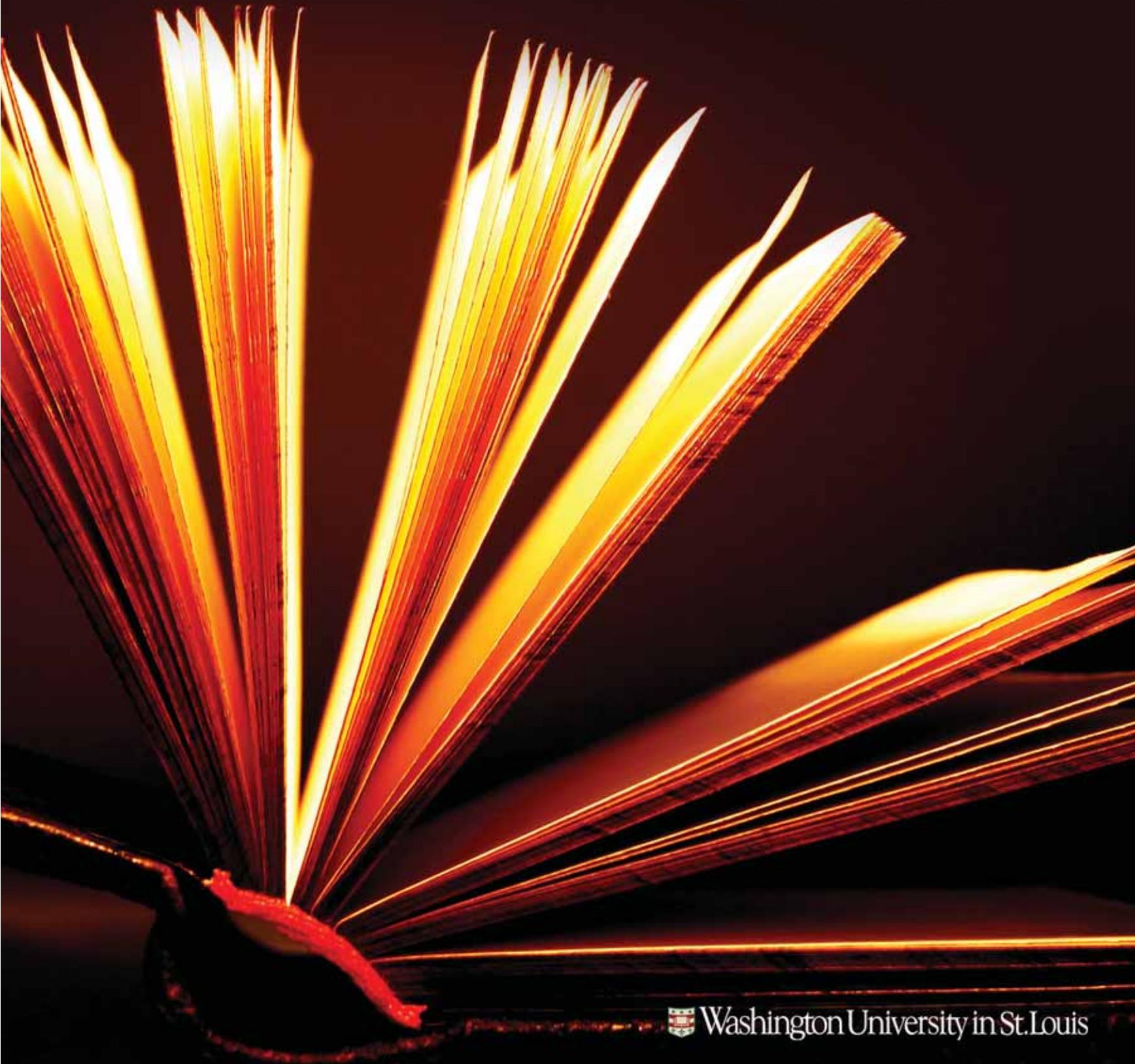


The Art of Education

ARTS & SCIENCES

THE MAGAZINE OF ARTS & SCIENCES AT WASHINGTON UNIVERSITY IN ST. LOUIS SPRING 2010

**Unfolding the stories
of Arts & Sciences**



 Washington University in St. Louis

A MESSAGE FROM THE DEAN

Dear Colleagues, Friends, and Graduates:



It is my pleasure to introduce the first edition of a new Arts & Sciences Magazine in an exciting format which highlights stories about the many

accomplishments of our faculty and students.

When I arrived last July to begin my new position as Dean of Arts & Sciences, I thought I knew something about Washington University in St. Louis. I had been attracted to the university as one of the fastest rising research universities in the United States. Now, almost a year later, I have learned a great deal more. With 40 departments and programs in Arts & Sciences, plus the College, the Graduate School and University College, I now have a close up view of a tremendous wealth of talent, activity and innovation in Arts & Sciences.

The articles in this inaugural issue convey the true breadth and depth of Arts & Sciences and take the reader from astrophysics to creative writing; from the political impact of modern Italian music to discoveries in neuroscience; from developmental economics to new studies of health issues faced by women around the world. As the dean of the faculty, I take pride in the work of our younger faculty, like Sophia Hayes and Andrew Rehfeld, who are already having a great impact on the university, as well as our distinguished faculty who are leaders in their disciplines, like Steven Zwicker; Barbara Schaal, who was recently appointed to President Barack Obama's Council of Advisors on Science and Technology; and Susan Rotroff, this year's winner of the gold medal for

achievement from the Archaeological Institute of America.

Washington University students are truly exceptional. I have devoted a special section of the magazine to their stories. Congratulations to Nick Yozamp, biology major and winner of this year's national college championship on Jeopardy! I invite you to read about our students' pursuit of learning opportunities outside the classroom, like Julia Mellon's theatrical work in London, Kevin Levine spending the summer at the National Institutes of Health, and so many of our graduate students whose research takes them from Antarctica to Africa.

I would like to acknowledge the work of the individuals who are critical to the creation of this magazine. Elizabeth Deal, director of communications, seized the opportunity to create a new look and focus and has had oversight of the production. Candace O'Connor, an accomplished historian of the university, made the stories come alive with her writing. And thanks to Connie Sulewski's unique artistic talents, we have a design and format full of energy, reflective of all that is happening in Arts & Sciences.

This has been a wonderful first year for me as dean. I look forward to sharing many more stories about Arts & Sciences in the coming years.

Gary S. Wihl
Dean of the Faculty of Arts & Sciences
Hortense and Tobias Lewin Distinguished Professor in the Humanities

I N S I D E A R T S & S C I E N C E S

GLOBAL REACH	2	Gender and Health: A New Research-Focused Initiative
	4	The Politics of Music: Luigi Nono
	6	Unlocking the Secrets of Inner and Outer Space
	8	Aiding the Poor Through Economic Research
FACULTY HIGHLIGHTS	10	Breakthrough Training in Brain Sciences: CCSN
	12	Living and Breathing Poetry
	14	Talking About the "Hard Sciences"
	16	Looking for Problems: A Folger Library Seminar
	18	Power Lunch: A Workshop in Political Theory
STUDENT HIGHLIGHTS	20	Honors Program in University College; Student wins Jeopardy!; Arts & Sciences Scholarship Program
	22	All the World is a Stage
	24	Reading and Living History: Students Consider the Japanese Internment
	26	All Parts of the World: Graduate Students Doing Research Abroad
	28	About Arts & Sciences
FACULTY NEWS	30	Faculty News
	35	Strengthening Arts & Sciences: New National Council Head Barbara Schaps Thomas

The Arts & Sciences Magazine is published by the office of the Dean of the Faculty of Arts & Sciences.

Correspondence
Arts & Sciences
Washington University in St. Louis
Campus Box 1094
One Brookings Drive
St. Louis, Missouri 63130
www.artsci.wustl.edu

Managing Editor
Elizabeth B. Deal

Writer
Candace O'Connor

Design
Sulewski Design



Gender and Health: *A New Research-Focused Initiative*

In most West African countries, men are the senior healers who handle life-threatening medical situations, choosing western or traditional healing techniques. But women manage reproductive health, particularly birth, and make child health decisions.

"And in all cases of illness, women perform some mediating role with respect to health care," says Mary Ann Dzuback, director of the Women, Gender and Sexuality Studies (WGSS) program. "So if you are trying to do

research programs, not yet informed by gender theory and analysis, with theoretical underpinnings that would enrich their work.

"We have the theoretical foundations and the interdisciplinary approaches, as well as social science-based empirical research, for a lot of public health problems," says Dzuback, associate professor of education, history and WGSS. "We also have well-known and respected feminist and gender theorists in the humanities and social sciences."

Health at the UCLA School of Medicine, who talked about "Gender, Reproduction and Health: Transnational Perspectives."

"Arts & Sciences Dean Gary Wihl has been enthusiastic about the development of the initiative. His generous support of the seminars in spring 2010 was critical," says Dzuback.

During the May seminar, Dzuback, Sargent and their colleagues will begin to explore program models for the four institutions involved, enlarging their group to include

"...to do research on health



issues in a developing

country, you have to understand how power is distributed by gender..." Mary Ann Dzuback

research on health issues in a developing country, you have to understand how power is distributed by gender in decision-making within local families."

Gender is also a key aspect of St. Louis health care issues: breast cancer and HIV/AIDS, among others. That means it is also important to Washington University scholars who deal with these problems. Within the Department of Anthropology are medical anthropologists including Carolyn Sargent, whose specialty is gender and health in global and transnational contexts. The School of Medicine has an active epidemiology research program. And the George Warren Brown School of Social Work has a new Institute for Public Health that grapples with community health concerns.

How to draw all those working on gender-related issues into one institutional initiative that would foster research and program development? Dzuback and Sargent decided that Arts & Sciences, with its potential for interdisciplinary connections, would be the perfect venue for this community of scholars. Those already engaged in these issues would have an exciting framework for discussion, and they could provide other clinical and

The fact that WGSS is based in Arts & Sciences distinguishes it from any other such efforts in the country. At other universities, much of the teaching and research on health issues take place in public health and medical programs — many of which offer little in the way of feminist and gender analysis.

In consultation with James Wertsch, director of the McDonnell International Scholars Academy, Dzuback, Sargent and other interested faculty members also decided to build on existing institutional relationships and create a working group of schools around the world. Soon they had identified three: The Tata Institute of Social Sciences in Mumbai, India; the School of Public Health at Fudan University in Shanghai, China; and the College of Public Health Sciences at Chulalongkorn University in Bangkok, Thailand.

To explore collaboration with these scholars, the Washington University organizers planned to hold a multi-year "Gender, Sexuality and Health" seminar series that would convene at Washington University. The first seminar, held in February 2010, had a keynote speaker: Carole Browner, professor in the Center for Culture and

humanists from Washington University and abroad. Eventually, they hope to expand their collaborative research and foster scholarly exchanges of faculty and graduate students. They want to link their work more closely with the McDonnell Academy's developing focus on global health, and explore the possibility of a university-based center dedicated to these issues.

The key organizers of these planning efforts will continue to be the medical anthropology program and WGSS, which was founded in 1972 as one of the earliest such programs in the nation. In undergraduate courses and in a graduate certificate program, students examine the effect of gender on such areas as literature, art, history, political structures, social relations, health and economic institutions.

This new seminar series and subsequent work will extend the work of WGSS and related programs. "We're aiming our efforts at people who are doing research related to these problems," says Dzuback, "and what they need to know about gender and feminist research in order to do the research that they want to do in the most effective way possible."



THE POLITICS OF MUSIC: LUIGI NONO

Why do academics study subjects that are complex, obscure or challenging? For example, why did music theorist Bruce Durazzi make Luigi Nono, a 20th-century Italian avant-garde composer, the subject of his dissertation and forthcoming book? Nono's work is dissonant, with clashing sounds; for some people it is "moderately hard to listen to," admits Durazzi.

Take Nono's best-known work, *Il canto sospeso* (1955-56), written for chorus and orchestra. He begins his process of composition with a simple melody, and then ruptures it, shattering the continuity and increasing the music's complexity. The voices fracture, too, into free-floating syllables.

"I find it interesting and provocative," says Durazzi, assistant professor in the Department of Music. "When Nono wrote it, a book had recently been published with the last letters home of victims of Fascism, and Nono set fragments of these letters to music. I am fascinated by the idea that, in writing this piece, Nono was putting a progressive political message in the foreground."

Nono was not only a musical modernist — part of a movement that was just beginning to wane by the time this piece was written — but he was also a lifelong Communist. Born in Venice, he came of age during World War II but, despising Mussolini, managed to avoid military service. A lawyer by training, he turned full-time to music, giving aesthetic expression to his political sympathies.

Even in his private life, Nono melded music and politics. In 1950, he wrote *Variazioni Canoniche*, a variation on a piece by his musical predecessor, Austrian composer Arnold Schoenberg, whose modernist work — using a novel 12-tone technique — was condemned by the Nazis. In 1955, Nono married Schoenberg's daughter Nuria; the couple had two daughters.

Although Nono died in 1990, Nuria Schoenberg Nono still directs a small archive of Luigi Nono's materials in Venice. Durazzi has been there, talked to her and done extensive research; he has also pored over the letters and writings of Nono, which have recently been published. What has emerged from all of this is the portrait of a man who was passionately committed to two things.

"He came of age believing in the Communist Party, partly because they were among the few who actually took up arms against the Germans," says Durazzi. "He also was fiercely loyal to the legacy of composers of the previous generation whose music he believed in."

Around 1960, Nono had a watershed moment. Suddenly, he tired of the 12-note serialist pieces that he and his contemporaries were composing and moved toward less abstract expression. He also realized that styling himself as a Communist was not enough; he should be actively engaged in workers' struggles. At that point, he began attending meetings of labor unions and supporting their causes.

Nearly 20 years later, another political event shook his life. The Red Brigades, a radical fringe element of the Italian Communist Party, kidnapped and ultimately murdered former Christian Democratic Prime Minister Aldo Moro and members of his entourage. While Nono never commented publicly on the murder, he was likely aghast.

"He entered a mood of deep introspection and really never came out of it," says Durazzi. "Although he never recanted, he started talking about having to find one's own way. His musical style changed, too: Now it became very quiet and contemplative, with a great deal of silence and open space."

One of Nono's final pieces was played in San Francisco this spring, and Durazzi gave the pre-concert lecture. Interest in Nono and his work is growing, particularly in England and the United States, where he was long overlooked. Last year, a London festival featured his work, and recently Durazzi attended a conference devoted entirely to Nono's music.

Durazzi, who also writes about Beethoven and other more mainstream composers, teaches first-year music theory and an upper-level course in 20th-century music; last fall, he taught a graduate course related to his current research. But his research on Nono allows him to explore both the life and music of a man who wrote in the context of an important political struggle.

"It's a fascinating challenge that he posed," says Durazzi, "and I don't think it is well enough understood."



Unlocking the Secrets of Inner and Outer Space

You're driving to an unfamiliar address and, like magic, your global-positioning system (GPS) device leads you to the right spot. A triumph of technology? Partly, says Ramanath Cowsik, director of the McDonnell Center for the Space Sciences. But that gadget also owes its existence to Einstein's theory of gravitation, which gave scientists the tools they needed to develop a direction-finding application for satellite signals.

In hundreds of critical ways, space science enriches our daily lives. "You can't touch things and say, 'here is science' or 'there is science,'" says Cowsik, who is also a professor of physics, "but I can't imagine anything we do that is not deeply affected by this kind of fundamental science. In fact, it is the very fabric of life."

At the McDonnell Center, founded in 1975 by a gift from the late James S. McDonnell, a consortium of researchers — 60 scientists, 30 students and 20 engineers and staff — is working to illuminate mysteries in space science. The group comes from a broad range of disciplines: physics, earth and planetary sciences, biology, chemistry and engineering. And their research reflects a far more sophisticated understanding of space than the moon-planets-and-stars version that most people learn in grade school.

"When we say 'space,' we think of two things: inner space and outer space," says Cowsik. "The inward-bound journey takes you to subatomic particles and how they're put together. In outer space, you not only find the planets, sun and other stars, but also the galaxies, black holes and other

interesting phenomena. Over the last several decades, scientists have realized that there is an exciting interconnection between what is happening in the cosmos and the inner workings of this microcosm inside the atom."

One example is dark matter, the mysterious gravitational force that holds galaxies together in outer space. Though scientists can't see it with a telescope, they can infer its presence by probing inner space, the heart of the nucleus, with high-energy accelerators. But it takes

"You can't touch things and say, 'here is science' or 'there is science,' but I can't imagine anything we do that is not deeply affected by this kind of fundamental science. In fact, it is the very fabric of life." Ram Cowsik

particle physicists and cosmologists working together to open new vistas into the study of dark matter. At the McDonnell Center, researchers in diverse fields — cosmic rays, seismology, neutrino physics, astronomy, experimental gravitation, astrophysics, and the study of pre-solar stardust — are seeking answers to questions about inner and outer space. James Buckley is using gamma-ray telescopes to detect signals from dark matter in nearby galaxies. Mark Alford is exploring quark matter, found at the center of neutron stars. While traditional astronomy is based on electromagnetic waves, Clifford Will and Wai Mo Suen are doing gravitational wave research that will be useful to NASA in its upcoming

Laser Interferometer Space Antenna (LISA) project.

Other scientists study the elements that make up stars or the gases that provide information about the formation of the solar system; still others focus on objects — galaxies, pulsars, supernova remnants — at the outer-most reaches of the universe. In the Earth and Planetary Remote Sensing Laboratory, directed by Raymond Avidson, researchers are actively involved in analyzing data from Mars lander missions and planning new planetary probes.

Cowsik himself, a pioneer in the field of astroparticle physics, has also done important work in astronomy, cosmology and non-accelerated particle physics. In 2001 he established the Indian Astronomical Observatory at Hanle in south-eastern India; at 15,000 feet, it is the highest observatory in the world. His 1972 paper describing the role of neutrinos and other weakly interacting particles in the formation of galaxies and dark matter is widely recognized for its seminal contribution to cosmology. And his research continues to uncover clues to the structure of the universe.

"In the long run, our goal is to understand the origins of the universe and the origins of life," says Cowsik. "Where did it originate? How did we come here? Where do you find life? What kinds of life

are there? These questions can be answered only when you have expertise at various levels."

Sometimes theoretical questions lead to unexpected practical applications. With funding from the National Science Foundation, Cowsik was working on an instrument to measure gravitational forces when he realized it might have another important use. In earthquakes, seismologists can measure forward, backward and sideways motion — but not the twisting movement of the earth that results in devastating damage to buildings. Cowsik is now working on a rotational seismometer capable of measuring that phenomenon.

"If I succeed in developing a sensitive yet low-cost instrument, then we can deploy such instruments in large numbers across the world, especially where there are fault lines," he says. "With these measurements, we can then establish new building codes that make life safer for those living close to these earthquake-prone zones — and save countless lives."

In many cases, the research that he and his colleagues are doing has garnered national recognition. The Earth and Planetary Sciences Department, formed as a direct result of the McDonnell Center's founding, is widely known as one of the best in the world. One major reason for all this success, adds Cowsik, is the Center's wide-ranging expertise.

"Science has expanded so much, yet at the same time has become so very specialized. Nobody can comprehend the whole of science today. But here each person has communication lines to a host of other scientists, and a great synergy develops. The story of science is like that: interconnectivity."

"Nobody can comprehend the whole of science today. But here each person has communication lines to a host of other scientists, and a great synergy develops. The story of science is like that: interconnectivity."

Ram Cowsik



In 1981, a group of Argentine squatters settled on

AIDING THE POOR THROUGH ECONOMIC RESEARCH

land in a poor suburb just outside of Buenos Aires.

Three years later, the government passed a law offering compensation to the owners of that property; if they accepted, the squatters would take ownership of those parcels. A number of owners agreed, but others did not, so only some of the squatters received title to their land.

What difference was there in the long run between those who owned their land and those who did not? wondered Sebastián Galiani, professor of economics. A specialist in development economics, particularly dedicated to the evaluation of public policies adopted by developing countries, Galiani launched a long-term study of the two squatter groups.

"We found that the titled households invested more in their houses and in the human capital of their children," says Galiani, who has worked as a consultant for the World Bank, the Inter-American Development Bank, the United Nations and governments of South and Central American countries, among others. "They had smaller family sizes and their children had a much higher secondary school completion rate. So land titling can be an important tool for poverty reduction."

Early in his career, Galiani knew that he wanted to pursue an academic research career with international implications. He received bachelor's and master's degrees from universities in Argentina, his native country, then earned a Ph.D. in economics from Oxford University. After graduation, he returned to Argentina to join the faculties of the Universidad Torcuato Di Tella and Universidad de San Andrés, though he left to take visiting professorships at several American universities, including Washington University.

He came to the university full-time in

2006 to join a department that was rapidly building up its faculty and course offerings, particularly in applied development. For a long time, Galiani's own work had been influenced by the work of Nobel laureate Douglass North, Spencer T. Olin Professor in Arts & Sciences, on the role that institutions play in economic development.

"We found that the titled households invested more in their houses and in the human capital of their children..."
Sebastián Galiani



Over the years, much of his research has focused on the long-term impact of improving housing conditions for the poor. In one recently released study, he looked at the results of a housing improvement program in Mexico that replaced dirt floors with cement flooring in the homes of some poor people.

First, he chose three cities with comparable demographics and labor markets; one had taken part in the flooring program five years earlier, while the other two had not. Working closely with the National Institute of Health in Mexico, he collected data on the children in these households and interviewed family members. Then he analyzed the

data using econometric techniques.

The results were clearcut, and Galiani described them in a paper, published in the *American Economic Journal* and titled, "Housing, Health, and Happiness." In the houses with cement flooring, the children had fewer parasites, less diarrhea or anemia and improved overall health. The houses were much cleaner. And mothers, too, were happier, reporting much less stress.

Currently, Galiani is working on new projects in applied development. One involves three Latin American countries — El Salvador, Uruguay and Peru — in which a Christian organization has built homes for the poor. But do these modest homes, located in shantytowns, improve people's lives in the long run? Or do they encourage people to stay in the same area, mired in poverty, when they might otherwise have left?

He is also involved in a project within the Dominican Republic, evaluating a government program that gives away grocery money to the poor. The shoppers are limited to certain stores — which quickly raise their prices, knowing they have a captive clientele. Will adding new stores to the mix improve the pricing problem — or will these new stores also victimize the needy?

Governments and NGOs have heard about his work, and they are now asking for his advice. He and research colleagues also conduct courses at universities around the world. Altogether, his work is very satisfying, he says, both intellectually and personally.

"I am very curious. When I read newspapers, I have so many questions that need answers," he says. "I hope my work may help governments and poor countries to adopt better policies."

BREAKTHROUGH TRAINING IN BRAIN SCIENCES: CCSN



Every one of us has a personal stake in the brain sciences. Maybe we'd like to help a stroke victim struggling to recover function; maybe we have a friend with mental illness and want to understand its genetic and neurobiological roots. Or maybe we just want to see our children develop healthy minds and emotional lives.

"For all these things, we need advances in understanding how the brain works, how it goes awry and how to fix it," says Deanna Barch, professor of psychology, psychiatry and radiology. "And coming up with ways to help people recover from impairments will increasingly depend on interdisciplinary work."

An innovative program at Washington University is preparing future brain scientists through training that crosses traditional boundaries to give doctoral students strong interdisciplinary expertise.

Called Cognitive, Computational and Systems Neuroscience (CCSN), it is one of a handful of programs in the United States that takes a vertically integrated approach to learning, through a two-year series of courses that mix psychology, biomedical engineering and neuroscience.

Funding for this exciting effort comes from the National Science Foundation through a five-year, \$2.8 million Integrated Graduate Education and Research Training (IGERT) grant,

awarded in 2006, which provides student fellowships. Kurt Thoroughman of biomedical engineering is the principal investigator; Steven E. Petersen is the lead faculty member from the Department of Neurology in the School of Medicine, as is Jeff Zacks from the Psychology Department in Arts & Sciences. Additional funding comes from the McDonnell Center for Systems Neuroscience.

Traditionally, says Barch, graduate students receive training within individual departments, but CCSN students are different. While they fulfill the requirements of their home departments and receive their degrees from these programs, they also take classes in the CCSN program, thus potentially adding a semester to their graduate experience.

But for this additional work, they receive a rich background in the neural sciences. During the first year, they take three challenging core courses — in cognitive psychology, neural systems and biological neural computation — that lay the groundwork for the second year of the program, which takes a tailored approach. In that year, students study advanced CCSN, with faculty-led case studies in neural science, then progress to CCSN Project Building, in which they develop research projects and grant proposals in their area of interest.

For example, one student has a strong interest in schizophrenia, which has ties to all the areas covered by CCSN. What neural systems misfire

and lead to problems with emotional processing? What kinds of emotional processing deficits occur in individuals with schizophrenia? How are these systems similar or different in animals and humans? What computations is the brain of a person with schizophrenia making — and how are they different from someone without this disorder?

Not only do students receive an exceptional education, they also have another valuable opportunity: to work closely with faculty members from a range of disciplines. "CCSN has moved beyond just a training program for graduate students," says Barch, who serves on the CCSN Steering Committee. "It is really a community-building experience for

both graduate students and faculty." In addition, older and younger students gather regularly to hear outside speakers, compare notes and take part in "journal clubs," reading articles that address a neuroscience question from a multidisciplinary perspective. "What did they like about it? If they were going to redo the study, what would they do? What are the implications for the field?" says Barch.

The program also takes vertical integration two steps further: to interested undergraduates and to the lay public. Through a summer research fellowship program, directed by Zacks, undergraduates have the chance to work with graduate students and faculty members. And an outreach program with the Saint Louis Science Center allows doctoral students to gain the experience of presenting their work to interested members of the public.

Altogether, this program enriches the lives of all those who participate. Faculty find it intellectually stimulating and a spur to scientific partnerships. Graduate students receive cutting-edge training, while undergraduates have a fine summer experience in which they begin thinking from an interdisciplinary perspective. A synergy also develops, says Barch, since great graduate students help attract top-notch faculty and vice-versa.

"In large part, this program was driven by our concern for training graduate students, but it also reflected the values of the faculty," she adds. "We felt this kind of program was necessary for the next generation of scientists, so they could do the work that was going to move the field forward."

As a much-honored poet — three times finalist for the National Book Award — Carl Phillips often receives fan letters. One favorite came from a woman whose son's mysterious illness had robbed him of speech; she hoped that reading poetry, particularly Phillips' poem, "A Mathematics of Breathing," might help her breathe in and out, continue living — and get through this terrible time.

It worked: Poems did offer her consolation and strength. And that is what poetry, song lyrics and the arts in general can do for us all, Phillips says. They let us explore feelings we aren't able to articulate; they give us emotional strength in times of crisis and help us make sense of adversity.

"I tell my students that I believe we could live without poetry, and that life does go on without it for many people, but the texture of life would be lost," says Phillips, professor of English and of African and African American studies, and a faculty member in the Writing Program. "If we didn't have poetry, we would exist, but something would be missing."

In his own life, poetry is the centerpiece of his writing and teaching. In 2009, he published his tenth collection of poems, *Speak Low* — his latest National Book Award contender. An earlier volume, *The Rest of Love*, won the prestigious Theodore Roethke Memorial Foundation Poetry Prize, while *The Tether* won the coveted Kingsley Tufts Poetry Award in 2002.

At the university, where he has taught since 1993, he regularly teaches a graduate poetry workshop and sometimes courses in the Interdisciplinary Project in the Humanities, a sequence for students seeking honors in Arts & Sciences. In the classroom, he often draws upon his broad knowledge of the classics, gained during his undergraduate years at Harvard and the decade he spent teaching Latin at secondary schools before becoming a writer.

As he tells his students, anything they do in life may be material for their next poem. "Whatever you're reading or listening to, you never know how it is going to figure in, because poems come from experience and everything should count," he says. "When students worry that they are wasting time — they didn't write this weekend — I tell them: 'You lived, you thought, you felt...'"

In his own life as a poet, he mines daily experiences for inspiration. A walk with his white dog, for example, became a well-known poem in which the narrator releases his white dog into the world, knowing she will disappear. Some readers were aghast that he would dream of letting an animal go. But he intended the dog — in real life, still his beloved pet — as a metaphor for difficult life choices.

"The dog represents a part of ourselves, the small part that is innocent and deserves to be released rather than, in a sense, stained by all the other parts," he says. "At the end the speaker knows that, if he lets the dog go, she won't come back, and he still lets her go. It's the idea of releasing the good part of oneself because it is too much at odds with the demons."

Many of his poems return to the same themes, particularly the question of social convention versus personal authenticity. What happens when our lives diverge from ordinary patterns of social behavior? This question resonates strongly with Phillips, he says, because he is both gay and bi-racial.

"Not fitting in has made me spend my life asking who decides how we should be, whether in terms of race, sexuality or even age. Who's to say that, if you're 50, you shouldn't go out and play pool if you want to?" says Phillips, who turned 50 last summer. "Yet there are people who would say, 'oh, grow up and be more mature.'"

Some time ago, he stopped worrying about his need to return to the same subject

IN HIS OWN LIFE AS A POET, HE MINES DAILY EXPERIENCES FOR INSPIRATION. A WALK WITH HIS WHITE DOG, FOR EXAMPLE, BECAME A WELL-KNOWN POEM IN WHICH THE NARRATOR RELEASES HIS WHITE DOG INTO THE WORLD, KNOWING SHE WILL DISAPPEAR...HE INTENDED THE DOG — IN REAL LIFE, STILL HIS BELOVED PET — AS A METAPHOR FOR DIFFICULT LIFE CHOICES.

matter. After all, one of his favorite poets — William Shakespeare — came back to the theme of love again and again. And all of us find that our perspective on love and loss, happiness and despair, changes as we get older.

Critics have also noted that some of his poetry has a spiritual feeling. As the Judges' Citation for the 1998 National Book Award put it, "Carl Phillips' passionate and lyrical poems read like prayers, with a prayer's hesitations, its desire to be utterly accurate, its occasional flowing outbursts."

"I don't know what the relationship really is," he says, "but I do feel as if poetry is a way of abandoning yourself up to something you believe exists and that seems a form of prayer, even though I don't think of myself as a religious poet or even a religious person."

Even if he could, he would not want to abandon teaching to write all the time.

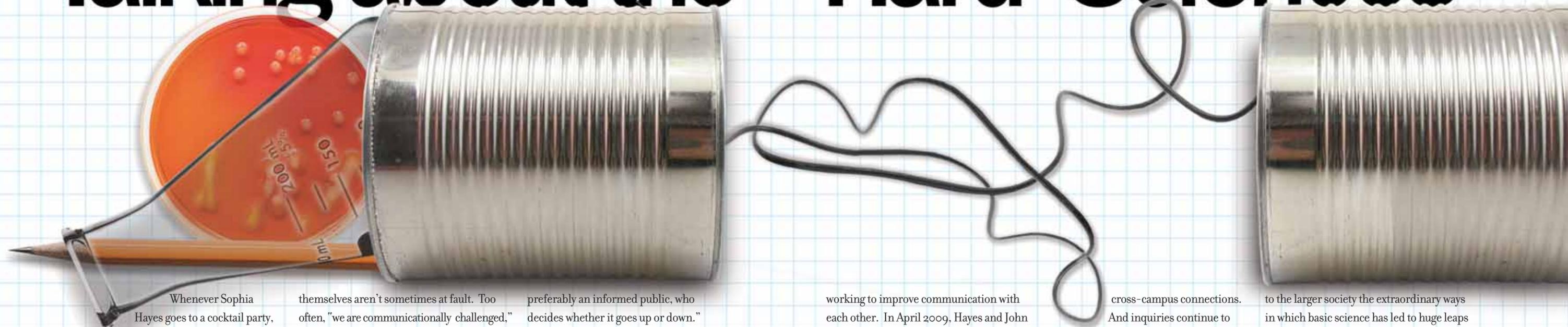
During the school year, he finds that his poetry output is higher than in summers, despite his increased commitments. He draws inspiration from his students, whose fresh insights are always exciting.

"Sometimes I'm working with students, and the way they talk about writing makes me turn to my own writing and ask myself, 'What if I thought about language a little differently from the way I've gotten used to thinking about it?' Or in reading a scene from the *Aeneid*, inevitably someone will see something that I've never seen after all these years," he says. "And I love watching someone discover, say, the *Iliad* for the first time. There is something really magical about all these things. For me, that's where inspiration often begins."

LIVING and Breathing Poetry



Talking about the “Hard” Sciences



Whenever Sophia Hayes goes to a cocktail party, she can predict what will happen. As soon as she tells someone she is a scientist, her acquaintance will look uneasy and politely begin edging away. If she goes further, mentioning that she is a chemist, the reaction is still more dramatic.

“It is the same with many of my friends who are physicists, engineers, mathematicians,

themselves aren’t sometimes at fault. Too often, “we are communicationally challenged,” she says, “failing to explain our work in terms that non-scientists can understand. We may rely on highly technical jargon—in my case, such terms as semi-conductors and nuclear magnetic resonance—that are opaque to anyone not in my field.”

But the rewards of doing a better job at conveying these concepts would be great, says

preferably an informed public, who decides whether it goes up or down.”

In her view, universities must play a key role in translating science, serving as educational beacons for information about scientific research, engineering and medicine. In general, they should do more educational outreach in their communities; they might consider serving as community resources to local business

working to improve communication with each other. In April 2009, Hayes and John McCarthy, professor of mathematics, held a one-day symposium, *Frontiers in Science and Technology*, aimed at helping young Washington University faculty better understand each other’s work. Participants had to explain their research at the level of any faculty member trained in at least one science, technology, engineering and math

cross-campus connections. And inquiries continue to come in from faculty members around the university—evidence, says Hayes, of the demand for building these cross-disciplinary ties.

Another university effort aimed at promoting dialogue among faculty members, she says, is the International Center for Advanced Renewable Energy

to the larger society the extraordinary ways in which basic science has led to huge leaps in technological advancement,” says Hayes. “Think of your cell phone, the fuel-efficient car you drive or the Internet you use daily.”

In promoting themselves, adds Hayes, scientists need to follow the lead of physicians who have managed to convey complex medical concepts to the public and have become compelling advocates for

“Too often, we are communicationally challenged, failing to explain

even biologists,” says Hayes, who is associate professor of chemistry. “The next thing we hear is a sigh and, almost always, the person we’ve met will say, ‘Oh, that was my worst class.’”

Why are lay people afraid of science? Perhaps they did have a bad experience with science education in the past. But some areas of science don’t terrify them—medicine, for example—so what is it about the “hard” sciences that creates so much anxiety?

Hayes wonders whether scientists

Hayes. At the university, she and her colleagues might be able to rely on one another for more help across departmental boundaries. And in the outside world, lay people with a greater understanding of scientific concepts would be better citizens.

“At the end of the day, public policy is determined by average people, most of whom are not scientists,” she says. “Science funding from such agencies as the National Institutes of Health or the National Science Foundation is also determined by the public,

people or government officials who need scientific advice.

Already, Washington University is moving forward in all of these areas. For example, the university sponsors the active, successful Science Outreach program, which brings university resources to K-12 classrooms in St. Louis. During the 2008-09 school year, these resources reached some 2,100 teachers and 25,700 students.

University faculty members are also

our work in terms that non-scientists can understand.” Sophia Hayes

(STEM) discipline.

“On a weekly basis, I encounter problems in my research that feel as though they could be resolved if I knew the right person on campus,” says Hayes. “I may need help soldering a special piece of equipment together or solving a differential equation. It’s great to meet fellow scientists whom I can call upon for help.”

This conference, though just a beginning, ended on a high note. Participants left with a great deal of enthusiasm and a network of

and Sustainability (I-CARES), established in June 2007 and directed by Himadri B. Pakrasi, Ph.D., the George William and Irene Koechig Freiberg Professor of Biology in Arts & Sciences. By fostering research on energy, environmental concerns and sustainability, I-CARES hopes to contribute to rapid progress in meeting the world’s energy needs. But this progress will only come if investigators from different fields work together.

“Scientists struggle to communicate

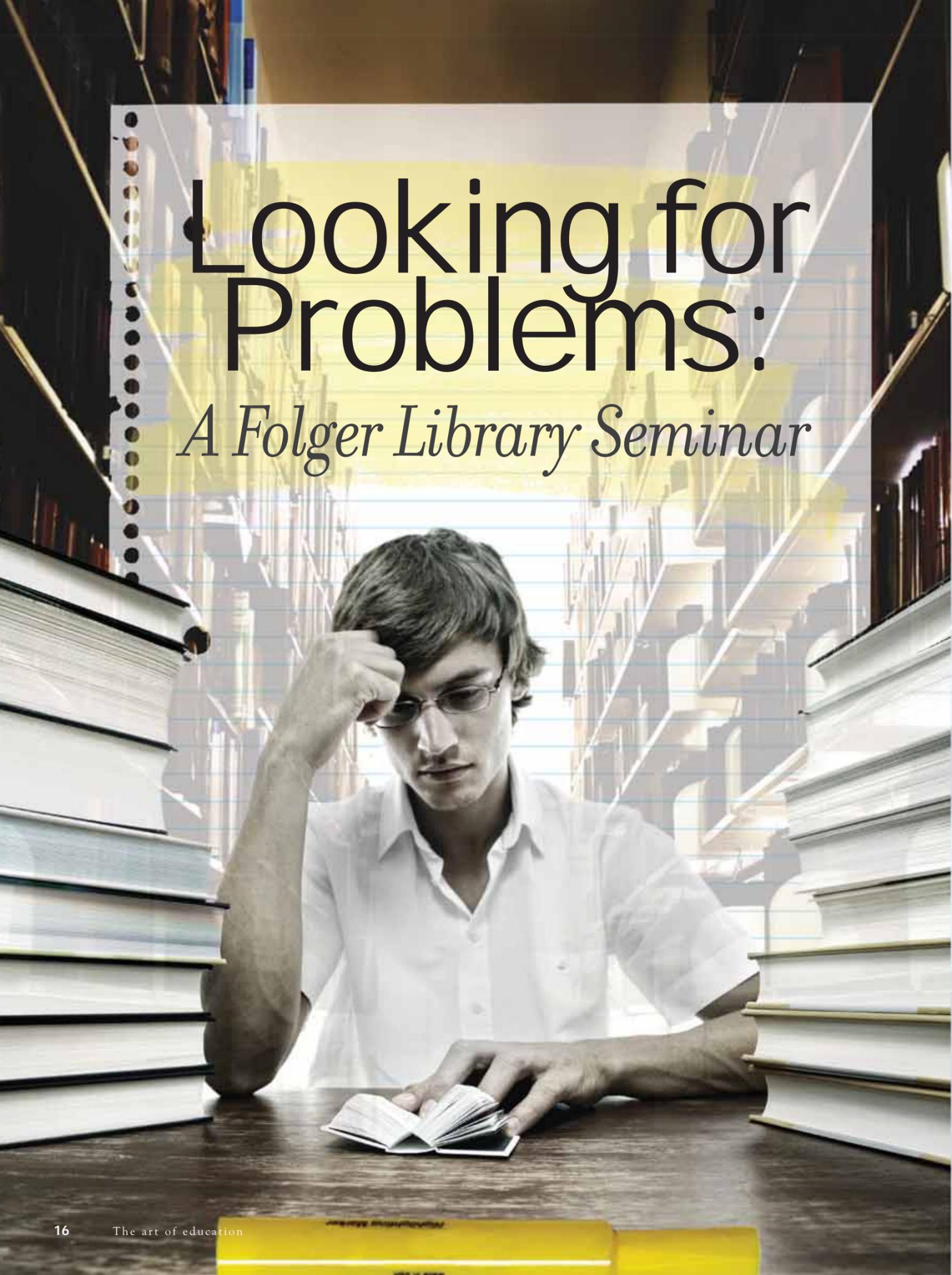
their field. They also need to take a lesson from the media, which has popularized science in such shows as *CSI* or *Wild Kingdom*. In the past, scientist Carl Sagan successfully translated high-level ideas in physics to a popular audience.

“It’s the people who are not interested in science for whom scientists do a very important thing,” she says. “Couldn’t we take our excitement about science and transfer that excitement to others who don’t choose to go into our disciplines?”



Looking for Problems:

A Folger Library Seminar



You are a graduate student just beginning your dissertation.

By now, you have a field: perhaps Renaissance drama or modern American fiction. You may even have a subject, such as Shakespeare and the classics or Faulkner and rural Mississippi. But you are still lacking something crucial.

"What is the *problem* that you are interested in working on?" asks Steven Zwicker, Stanley Elkin Professor in the Humanities. "What questions do you want to ask? What kinds of evidence will supply the answers? What archives should you be planning to visit?"

During the 2009-10 school year, Zwicker and Derek M. Hirst, William Eliot Smith Professor of History, are teaching a monthly seminar at the Folger Shakespeare Library in Washington, D.C., to help doctoral students in history and literature learn more about problem-based research. They are focusing on an area familiar to both of them: the vast array of materials available for the study of early modern Britain.

Zwicker himself has written widely on 17th-century English literature, particularly the intersection of politics and literature. Hirst is an expert on early modern British history, showing how cultural and social issues have shaped historical events. With such similar interests, Zwicker and Hirst have collaborated in the classroom and in writing projects, currently on a study of Andrew Marvell and his work.

In their own reading of early modern scholarship, they have often sensed the writer's failure to take a problem-solving approach. "We ought to be able to answer the question: 'Why should I be interested in this?'" That is a question I don't think is asked often enough, but it seems to me very important to be

able to say: "The problem I'm interested in here has to do with economics and culture or race and gender or issues of identity."

His own research, focusing primarily on a group of Renaissance authors, has dealt with a number of key questions: How did men and women in the Renaissance view love, desire, selfhood or identity? Did they think differently about these categories than we do? How did their religious beliefs or notions of the body shape their attitudes?

Both Zwicker and Hirst have

"It is important to conceptualize things in a way that makes your work accessible and exciting — and not just to a few scholars who work in exactly the same field of research."

Steven Zwicker

brought their own rich experience to the seminar, which is sponsored by the Folger Institute, the educational division of the Folger library. They travel to the Folger once a month for research and for the Friday afternoon seminar.

In class, they have a stellar crop of graduate students from a range of schools, including Notre Dame, Vanderbilt, Harvard, Yale, the University of Pennsylvania, Rutgers, Boston University and the University of Maryland. All of them are writing dissertations in the early modern field; their subjects cover a variety of topics, from travel narrative to the nature of numbers and astronomy; from conceptions of childhood to heroic figures in drama.

In October, Zwicker and Hirst presented

a session on the "History of Reading," which provoked a spirited response. Some of the students asked how we can know what people in the early modern period thought of their texts; one answer is "marginalia," the notes that readers left in the margins. But people often read out loud during this period — so perhaps their reactions were also influenced by the responses of the listeners or by the act of reading the text?

"It was a good session and it got us to the question of what is the nature of evidence: How do you think about evidence of acts and performances that have disappeared, like the act of reading?" says Zwicker.

He hopes that these students will carry such conversations back to their own institutions and use the lessons they learned while formulating issues in their dissertations and in their teaching. They also want students to consider the interdisciplinary character of much early modern scholarship: Do colleagues in history, political thought or history of science share some of these concerns? How can their questions and problems shape work in allied fields?

It is important to remember, Zwicker says, that we are in the midst of an electronic revolution that is powerfully changing the ways in which we read, our access to research materials and the kinds of intellectual problems that interest us now and will remain important in the future.

Overall, he adds, "It is important to conceptualize things in a way that makes your work accessible and exciting — and not just to a few scholars who work in exactly the same field of research," he says. "We must *engage* people: in the academic community, in the intellectual community and readers more generally."

Power

A Workshop in Political Theory

The Workshop in Politics, Ethics and Society (WPES) — a multi-disciplinary group of scholars from Washington University and beyond — meets weekly to consider thorny questions in political theory, all related to the uses of power in society. Over lunch, a member presents research in progress dealing with a problem in justice, democracy or authority. Then a stimulating, sometimes eye-opening, discussion ensues.

One WPES member, political scientist Frank Lovett, is working on a theory that gets to the heart of why social domination is nearly always harmful. As an example, he talked to the group about the master/slave relationship. If a master is encouraging a slave to learn and the slave is benefiting from that help, what makes the relationship wrong?

"You can't say the slave is worse off than he would be otherwise, because he is not," says Andrew Rehfeld, associate professor of political science. "You can even imagine a case in which he is better off for being under that tutelage. But there's still something wrong: in large part, because this is a relation built upon domination, with the master's will replacing the slave's."

With a grant from the Center for Ethics and Human Values, Rehfeld started WPES in fall 2002 to discuss just such issues. From fewer than a dozen participants, it has grown to a mailing list of more than 250 people, with 20 to 40 faculty and graduate student attendees at each session. The group has also expanded to include a wide range of disciplines: history, philosophy, anthropology,

economics, English and political science; social work and law. Faculty from Saint Louis University and the University of Missouri—St. Louis also drop by.

Altogether, it has become one of the top interdisciplinary political theory efforts at any American university, says Rehfeld. While a handful of other schools have similar programs — Brown, Harvard and the University of Virginia, among others — Washington University began its WPES nearly a decade ago, and the community of scholars is well developed.

At any given meeting, the group may hear a paper that is quite different, in tone and content, from the one the week before. A historian, for example, may ask such a question as: What did individuality mean in the 18th or 19th century? Comments made by the diverse faculty in attendance broaden and deepen the presenter's thinking about the issue.

"The political scientist will bring to the discussion different questions than the historian," says Rehfeld, who directed WPES for seven years and has recently turned

Lunch:

over its leadership to his colleague, Frank Lovett. "I think this interdisciplinary perspective enriches each other's work. We have a common sense of purpose, but we're coming at these issues from different angles."

This lively conversation also gives faculty a welcome chance for regular engagement. "Scholars work alone and tend to be very isolated," says Rehfeld, whose own area of interest is political representation. "This builds community like nothing else that I'm affiliated with, and I think that's very important for our intellectual development."

By stimulating scholars, the university may benefit through improved teaching, says Rehfeld, who directs undergraduate studies in his department. When academics are "pumped up about ideas," they will bring these ideas to their students, who will think even more critically about power, justice, education and representation.

That may encourage them, in turn, to become better citizens and, after graduation, do something meaningful with their lives.

Furthermore, WPES may actually foster social change. For one thing, the scholars who are involved may write editorial

pieces that advocate for a position. And some of the participants, particularly the social work faculty, may find ways to translate ideas into action.

"Our point is not simply to comment on the world," says Rehfeld. "We want to move it in a direction of keeping those things that have been good for society and changing those that ought to be changed. We want to do this with an eye both to serious scholarship and maintaining our interdisciplinary focus but also inspiring people to take up issues and change the world around us."

WPES has been so successful that, with funding from the dean's office and several departments in Arts & Sciences, it is taking a step forward. Under a 15-member advisory council, it is growing from a workshop into a broader initiative — Politics, Ethics and Society — that is hosting its third annual conference on political theory this spring and hopes to sponsor one or two visiting faculty members each year.

With the help of an enthusiastic political science major, senior Gregory Allen, WPES has also moved onto the Internet. In a weekly blog, the student posts a statement about the most recent workshop, and other interested parties add their comments.

"I have a vision for this effort," says Rehfeld. "It's a vision about shaping ideas, doing good intellectual work and changing and preserving the world. As John Stuart Mill said, we need to preserve that worth preserving and change that worth changing. That's what we're about: We need people to do the preservation and the changing."

New Recognition for Worthy Students: The Honors Program in University College

Robert E. Wiltenburg, dean of University College, the evening and special-programs division of Arts & Sciences, recalls one Commencement vividly. That year, the award for academic achievement was going to a young woman with a 4.0 grade point average (GPA) in applied mathematics. When she stepped to the podium, she was holding a baby in one arm and had a toddler by her side; a small voice from the back of the room called out: "Way to go, Mommy!"

"We have some astonishing students," says Wiltenburg, "whose dedication, talent and achievements make us grateful every day that we have a chance to work with them and help them further their education."

High achievers like these, he says, deserve a chance for the same college honors — *cum laude*, *magna cum laude* and *summa cum laude* — that their day-school counterparts can earn.

So in fall 2010, University College is inaugurating a new honors program — possibly the first of its kind in the nation — that will allow its top evening students to win this kind of recognition.

The program will offer other advantages as well. Honors students will work closely with a faculty member on a research project and take one class a semester in the day program. If they have a strong academic record, they will be eligible for a

\$1,000 merit scholarship, in addition to any need-based aid. To remain in the program, honors students must maintain a 3.5 GPA. They take a one-credit Dean's Seminar, which will introduce them to various approaches to learning, and a course, "Individual and Organizational Introspection," which will help with personal and professional development.

"We have some astonishing students whose dedication, talent and achievements make us grateful every day that we have a chance to work with them and help them further their education."

Robert E. Wiltenburg,
Dean of University College

In addition, they will have two classes in the American Experience, two in some aspect of the Global Environment and a special section in critical thinking.

"Through this new program, we hope to attract more of the best area students to University College," says Wiltenburg. "This is an exciting initiative, and a unique step forward in continuing education."

Arts & Sciences Junior Wins Jeopardy!



Junior biology major Nick Yozamp won the 2010 Jeopardy! College Championship and a \$100,000 cash prize in February. "Nick's enthusiasm and breadth of interests become immediately apparent when you talk to him," said Ken Olsen, professor of biology and Yozamp's major advisor. "I was delighted that he won. He made us all proud throughout the competition." Yozamp

plans to use his winnings toward tuition for medical school in the future. And how did he feel about being a participant on Jeopardy!?" "I've watched hundreds of contestants being introduced on Jeopardy! from home," Yozamp said, "but to actually be one of those contestants was simply amazing."

Preparing "World Changers": The Arts & Sciences Scholarship Program

In 1985, when the Arts & Sciences Scholarship Program was established, the first scholarship dinner was a modest affair. That year, 26 scholarships were awarded; the roster of awardees was two pages long. The inaugural dinner, held at Whittemore House, attracted a small but enthusiastic crowd.

What a difference 25 years make! By fall 2009, that brochure had grown to 28 pages of donors and student recipients. The annual scholarship dinner, held at the Crowne Plaza, was a gala occasion with some 275 guests. It also marked a quarter century of growth in the program, which had awarded scholarships to some 2,500 students.

"Providing scholarships for undergraduate and graduate students is at the very core of making Washington University available to the best and brightest students from around the nation and the world," wrote Dean Gary S. Wihl to donors.

Donors say they welcome the chance to help these "best and brightest." "By assisting students in their efforts to fund their education, scholarship funds are the catalyst for Washington University's ascendancy," says Gregg Walker, A.B.'94, who endowed The Harlem Scholarship in honor of the Walker family.

Melanie Newbill, A.B.'64, D.D.S.'68, also a scholarship donor, has still another reason. "There is only one thing you can give someone that no one can take away — and that is learning," she says. "Times can be good or bad, and it doesn't matter. An education is the one thing that lasts."

"Providing scholarships for undergraduate and graduate students is at the very core of making Washington University available to the best and brightest students from around the nation and the world."

Dean Gary S. Wihl

With their education, many scholarship recipients in Arts & Sciences are doing remarkable things. Current student Kevin Levine, who receives a Roland Quest Scholarship, did research last summer at the National Institutes of Health (NIH). Christopher Lawton, A.B.'01, who received the Warren and Deloris Coy Boecklen Scholarship, is a writer for *The Wall Street Journal*.

Over the next five years, the university plans to create more scholarships for Arts & Sciences students. Last year, the minimum level to fund an annual scholarship rose from \$2,500 to \$5,000. In September 2010, the level to endow a scholarship will follow suit, rising from \$50,000 to \$100,000.

"As the cost of education has gone up, so has the need for scholarship help," says Wihl. "Washington University offers an outstanding educational experience, and we want to be sure that it remains affordable for our extraordinary students."

Student recipients, past and present, are grateful for the scholarships that made their education possible. As sophomore Kelly N. Bunch, speaker at the 2009 dinner and recipient of the William Julius and Marie Prange Oetting Scholarship, put it, "The students at Washington University are being transformed into world changers...I can't say it enough: Thank you."

All the World is a Stage:

Julia Mellon and the Performing Arts

In Shakespeare's *Hamlet*, the part of Ophelia is a tough one to handle, even for the most experienced actress. Just before her death — by accident or suicide — the young woman has gone mad: spurned by Hamlet, grieving for her dead father. She appears on stage, with tousled hair, fading in and out of reality.

But for Julia Mellon, a Washington University junior, playing Ophelia last year in the Performing Arts Department (PAD) production of *Hamlet* was the chance of a lifetime. Months ahead, she researched the role avidly; during rehearsals, she kept a detailed journal, complete with the symbolic meanings of Ophelia's favorite flowers, to delve more deeply into the emotional life of her character.

When opening night came, she was ready — and it showed. "I know it was my best work," says Mellon, a joint major in drama and political science, who is spending this semester abroad at King's College in London. "I loved playing the part. It was an amazing opportunity."

The play's director, Henry Schvey, was also pleased. "Her performance of Ophelia's madness was powerful and intensely, imaginatively felt," says Schvey, professor of drama and comparative literature. "It was the result of Julia's work ethic and dedication to exploring every painful facet of Ophelia's psyche."

Actually, the entire cast did well — and that, says Julia, is due to the sense of community fostered by Schvey and his PAD colleagues. Students feel secure in exploring their roles and testing the limits of their creativity. They also become closely connected to their faculty mentors, who are both teachers and friends.

"We have a very strong, special blend of critical studies and performance," says Robert Henke, PAD chair. "Students get a lot of personal attention — mentoring and nurturing — in the studio and in seminar. They also get the knowledge and research expertise of people who are publishing nationally."

Altogether, there are some 30 drama majors in PAD and a host of other students who take part as cast or crew. In most years, PAD puts on five plays a year and two dance concerts; one might be a musical, which takes a large, talented

18 campuses, including Washington University, though she was dubious about coming all the way to the Midwest.

"The day I visited I happened to find Henry Schvey in his office, and he found time to talk to me for two hours," recalls Mellon. "It was an incredible conversation. We talked about what a collaborative department it was and how the whole mentality in the PAD made it unique. Within minutes of leaving his office, I had decided to come to Washington University."

She has never regretted her choice.

MONTHS AHEAD, JULIA RESEARCHED THE ROLE AVIDLY; DURING REHEARSALS, SHE KEPT A DETAILED JOURNAL, COMPLETE WITH THE SYMBOLIC MEANINGS OF OPHELIA'S FAVORITE FLOWERS, TO DELVE MORE DEEPLY INTO THE EMOTIONAL LIFE OF HER CHARACTER... WHEN OPENING NIGHT CAME, SHE WAS READY — AND IT SHOWED.

cast. Last September's production of *Ragtime*, for example, involved some 50 actors, plus others behind the scenes.

It was this opportunity for performance and personal attention that brought Mellon to Washington University in the first place. In Connecticut, where her parents are professional sculptors, she attended high school at Choate Rosemary Hall and performed in five theatrical shows. Her most memorable was *Sweet Charity*, in which she played Ursula March, a broadly comic part.

Hooked on drama, she knew that she wanted to continue her education at a strong liberal arts institution where she could also study political science — but not many schools offered that combination. All in all, she visited

In her freshman year, she appeared in *She Stoops to Conquer*. The next summer, she traveled to London as part of the university's month-long Globe Theatre program. She is a member of Mama's Pot Roast, one of several improvisational comedy troupes on campus. And she has taken exciting drama courses with Annamaria Pileggi and William Whitaker.

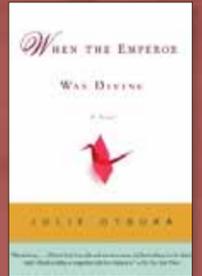
With another undergraduate year to go, Mellon is now weighing her options for the future. She may study public policy or teach; she may go into theater education or human rights advocacy. But she hopes the theater will always be part of her life.

"I am passionate about it. It is something I have always loved," she says. "It is exciting to work in community to create something beautiful."

Reading and Living History:

Students Consider the Japanese Internment

As part of the annual Freshman Reading Program this year, incoming students read and discussed a poignant novel – *When the Emperor Was Divine* by Julie Otsuka – about the World War II-era internment of Japanese-American citizens. It was a disgraceful period of American history in which Washington University played a small but admirable part.



If college-age children of internees could find a school willing to take them, they would escape the fate of their families and continue their education. Washington University accepted 28 of these students into eight campus programs. “The attitude of the University is that these students, if American citizens, have exactly the same rights as other students who desire to register in the University,” wrote Chancellor George Throop in a 1942 letter.

These students lived in dorms, faced no restrictions, engaged in extracurricular activities — and 23 eventually graduated. One of them was Yoshio Matsumoto, a third-year engineering student no longer welcome at the University of California—Berkeley. He traveled by train to St. Louis with three companions: Gyo Obata, B. Arch. ’45; Richard Henmi, B. Arch. ’47; and Theodore K. Ono, B.A. ’43.

Fast forward to fall 2009: Andrew Matsumoto is an incoming Arts & Sciences freshman, reading the Otsuka book. When he came to campus, he had with him his father, Joseph, and another special visitor. For the first time in six decades, his grandfather — Yoshio Matsumoto,

E.N. ’44, now retired after 26 years with 3M in Minnesota — returned to the university for a visit and had a special meeting with Chancellor Mark Wrighton.

“We were very happy and grateful to be able to come here,” Yoshio Matsumoto recalled during that meeting. “There were a number of schools that didn’t want to take Japanese-Americans. But there were educators who got together and said, ‘We want to get these college kids back to school.’”

Other events also honored these war-era students. Obata, a founder of the internationally known architectural firm HOK, held a public conversation with Michael Adams, M.D. ’67, about the experiences of their fathers, who were friends. Chiura Obata, an artist, captured scenes at the Topaz Relocation Camp in Utah; renowned photographer Ansel Adams took photos of another camp, Manzanar, in California. An exhibition on campus featured work by both men.

Among many activities related to the internment period was a faculty debate — with Kit Wellman from philosophy, Andrew Rehfeld of political science and Camille Nelson from law — on the political justification of ethnic profiling. Julie Otsuka herself gave a September Assembly

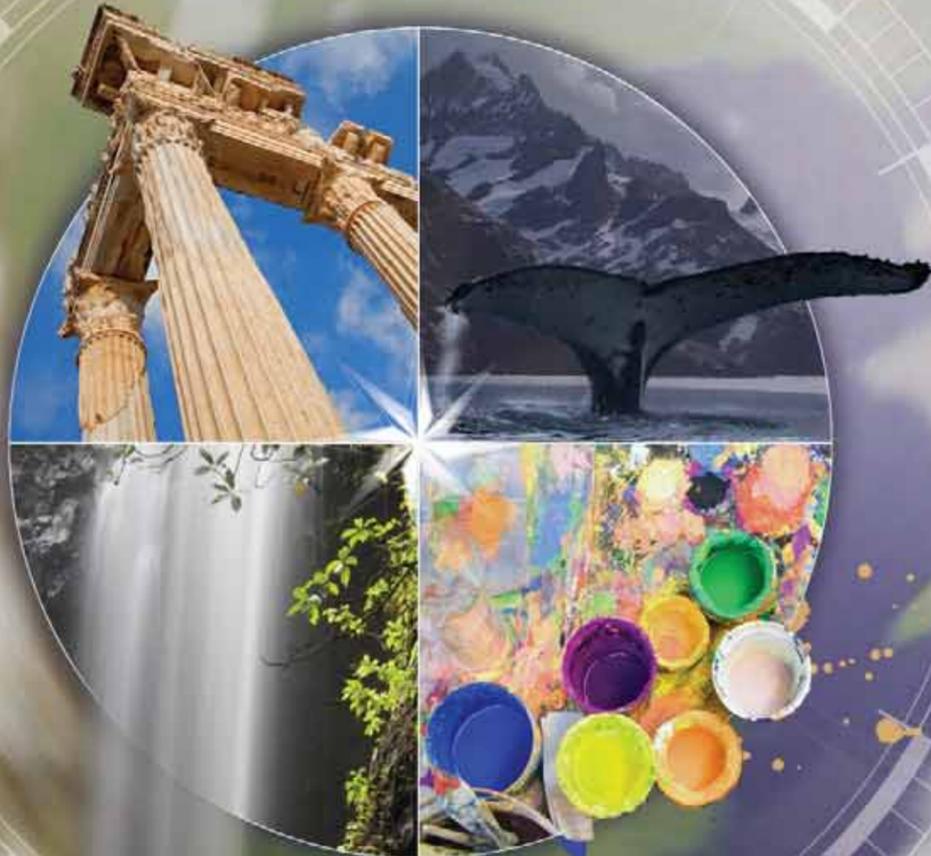
Series lecture about the camps and her book. And Risa Zwerling Wrighton, wife of Chancellor Mark Wrighton, gave the Otsuka book to participants in her “Home Plate” program, which matches students with host families in the university community.

Altogether, the Freshman Reading Program reaches much of the Danforth Campus community. “It’s also a welcoming event on the part of the faculty,” says Sharon Stahl, associate vice chancellor for students. “Some 65 to 80 faculty are involved who may not be teaching or advising these students, but they are welcoming them into the community by leading the discussion of a book that they shared. That’s one of the wonderful things about it.”

And this year’s program may have been the most successful yet, says Alicia Schnell, A.B. ’97, M.S.W./M.B.A. ’02, director of the Freshman Reading Program. “The topic had so many dimensions they could explore in discussion: the internment itself, politics at the time and parallels to things happening today in society. I think students found it neat, too, that there was a personal connection to one of their classmates. That makes it more real to them.”

ALL PARTS OF THE WORLD:

GRADUATE STUDENTS
DOING RESEARCH ABROAD



It is no exaggeration to say that Washington University graduate students go to the ends of the earth to do research. Just ask Amanda Lough and David Heeszal, both Ph.D. candidates in the Department of Earth and Planetary Sciences (EPS), who have traveled to Antarctica on separate projects. He is using surface waves from distant earthquakes to calculate the age of a mountain range, completely buried by ice. She is studying the twice-daily movement of the Whillans Ice Stream, using seismological techniques.

"Having the opportunity to travel to Antarctica in support of my research has definitely enriched my time here at Washington University," says Heeszal, who will finish his dissertation in fall 2010. "The guarantee my advisor made me prior to attending Washington University is one of the major reasons that I chose this program over those at other universities."

Within EPS, other students have also gone to exciting locations, including Fiji, the Mariana Islands and Cameroon. And that is just the beginning. In other graduate programs — history, anthropology, art history and archaeology, music, economics, chemistry and a range of languages — students are conducting research overseas. While some choose familiar places, others are off to more remote spots, such as Madagascar, Kenya, Sri Lanka or Syria.

"The exchange of knowledge, experience and cultures enriches our campus."

Richard J. Smith, Dean of the Graduate School of Arts & Sciences

"Graduate students at Washington University are heavily involved in international collaborations. Approximately one-third of the new Ph.D. students arriving each year are international students, and our enrolled students are conducting research all around the globe," says Richard J. Smith, dean of the Graduate School of Arts & Sciences. "The exchange of knowledge, experience, and cultures enriches our campus."

The chance to study abroad makes it possible for students to learn about their subjects firsthand. During the 2008-09 academic year, history graduate student John Aerni-Flessner spent 10 months in the African country of Lesotho, where he conducted interviews to gather more information about nationalism during the 1950s and 1960s. At that time, young people were challenging the status quo through their involvement in youth groups.

He made some of his most interesting contacts serendipitously. "I knocked on the wrong door, looking for a different person, and ended up doing an hour-and-a-half interview with the man

who answered the door," he recalls. "I met another interviewee in a bus station, where we were both standing in line."

First-year Ph.D. student Andrew Findley has been to Turkey four times and will return for six weeks this summer to delve further into his topic: sacred spaces in Late Antique Asia Minor. In particular, he hopes to define the factors that contributed to the creation, destruction and then re-use of holy buildings in regional centers like Ephesus, as Christianity gained ascendancy over paganism.

Both he and his wife, a fellow Peace Corps volunteer whom he married in Turkey, understand Kurdish, and that has made possible some interesting interactions. Shortly after Kurdistan gained more autonomy following the second Iraq war, they were sitting in a small Istanbul restaurant, in which the only other table was occupied by Kurds. Soon they all got together, exchanging unforgettable stories and impressions.

Occasionally, graduate students would like to visit the country they are studying but, for political reasons, cannot. Sarah Kendzior, a Ph.D. student in anthropology, is examining the resistance movement among Uzbek dissidents forced to flee after a 2005 massacre. Now they live in countries around the world, unable to return to Uzbekistan; they rely on the Internet to keep in touch with each other and also with Kendzior, as she does her research.

And not every memory of a research trip is a triumphant one; occasionally, students have found themselves in a terrible fix. When Amanda Lough travels to Antarctica, for example, she flies first to New Zealand, then boards a military C-17 cargo jet to get to her icy destination. So if crucial equipment goes missing,

she can't walk to the corner store to find replacements.

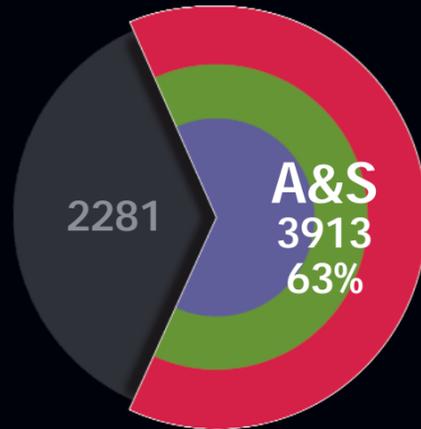
"This past season, someone misplaced our instrument boxes, so I had to help another team member fashion new boxes out of scrap materials we scavenged around McMurdo Station," she says.

And in 2007, David Heeszal was helping to install a station in Antarctica when he dropped his specialized tool — six feet long, with a sharp point — and it promptly disappeared. Poking gingerly into the powdery snow, which might hide a dangerous crevasse, the team's mountaineer eventually found the upper tip of the tool — a full two feet below the surface.

Despite such small problems, says Andrew Findley, the experience of doing research trips abroad is vitally important. "For art historians, the opportunity to engage in research travel allows us to establish a physical context for the art, objects and buildings we study," he says. "We can much better understand the original intent if we experience the environment in which a work of art was created."

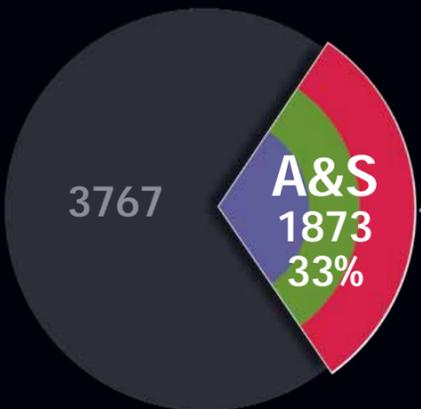
Washington University Students by School

Arts & Sciences is the core of undergraduate, graduate, and continuing education at Washington University



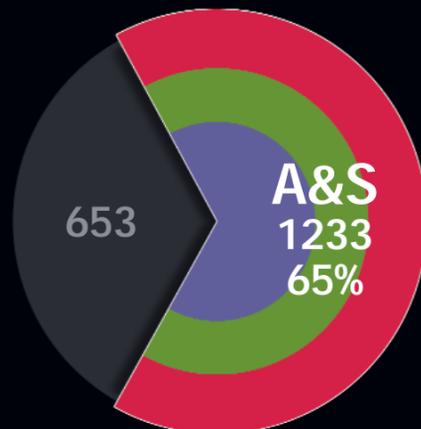
Undergraduate Students

- All undergraduates take courses in Arts & Sciences
- Arts & Sciences faculty teach over 70% of the courses taken by undergraduates



Graduate and Professional Students

- Ph.D.s are offered in over 30 fields by the Graduate School of Arts & Sciences
- Six programs include dual or joint degrees between Arts & Sciences and another school of the university
- Interdisciplinary certificates are offered in nine areas



Evening Students

- University College in Arts & Sciences is the primary resource for courses taken by evening students and adult learners

Source: Washington University Office of Student Records, Total Enrollment by School, Fall 2009 10th-week enrollment

Other Washington University schools: George Warren Brown School of Social Work, Olin Business School, Sam Fox School of Design & Visual Arts, School of Engineering & Applied Science, School of Law, School of Medicine

Programs

Centers

Departments

Comparative Literature

Jewish, Islamic and Near Eastern Studies

American Culture Studies

Center for the Humanities

Film and Media Studies

Women, Gender and Sexuality Studies

Interdisciplinary Program in Archaeology

Max Kade Center for Contemporary German Literature

Interdisciplinary Project in the Humanities

African and African American Studies

Philosophy-Neuroscience-Psychology

Religious Studies

International and Area Studies

Environmental Studies

Center for Applied Statistics

Center for the Study of Regional Competitiveness in Science and Technology

Center for Urban Research and Public Policy

Center for New Institutional Social Sciences

Center in Political Economy

Weidenbaum Center on the Economy, Government, and Public Policy

Center for Materials Innovation

McDonnell Center for the Space Sciences

Tyson Research Center

Humanities

- Art History and Archaeology
- Asian and Near Eastern Languages and Literatures
- Classics
- English
- Germanic Languages and Literatures
- History
- Music
- Performing Arts
- Philosophy
- Romance Languages and Literatures

Social Sciences

- Anthropology
- Economics
- Education
- Political Science
- Psychology

Natural Sciences and Math

- Biology
- Chemistry
- Physics
- Earth and Planetary Sciences
- Mathematics



ACHIEVEMENTS AND AWARDS

January 2009 through March 2010

American Culture Studies

Wayne Fields, 2009 Outstanding Faculty Mentor award from the Graduate Student Senate in Arts & Sciences

Anthropology

Rebecca Lester, 2009 Stirling Prize for Best Published Work from the Society for Psychological Anthropology

Art History and Archaeology

Angela L. Miller, 2009 Outstanding Faculty Mentor award from the Graduate Student Senate in A&S

Biology

Garland E. Allen, named Fellow of the American Association for the Advancement of Science (AAAS), the world's largest general scientific society

Roger Beachy, asked by President Obama to lead a new federal agency to transform the way that plant science research is funded in the United States

Jonathan M. Chase, Outstanding St. Louis Scientist Innovation Award from the Academy of Science of St. Louis

Ursula Goodenough, named 2009 Fellow of the American Academy of Arts & Sciences

Victoria L. May, Outstanding St. Louis Science Educator Award from the Academy of Science of St. Louis

Barbara Schaal, appointed by President Obama to the President's Council of Advisors on Science and Technology (PCAST); was installed as the first Mary-Dell Chilton Distinguished Professor in Arts & Sciences

Chemistry

J. Dewey Holten, 2009 Outstanding Faculty Mentor award from the Graduate Student Senate in Arts & Sciences

Classics

Susan Rotroff, awarded archaeology's 2011 gold medal for achievement from the Archaeological Institute of America

Earth and Planetary Sciences

Robert Criss, inaugural Barry Commoner Science in Environmental Service Award from the Missouri Coalition for the Environment

International Astronomical Union (IAU) named Haskin Crater on the moon after the late **Larry Haskin**, former professor of earth and planetary sciences, department chair, and member of the McDonnell Center for the Space Sciences

Proposed Moon mission, MoonRise, one of three finalists bidding on a \$650 million NASA space science mission, researchers **Bradley Jolliff** (principal investigator), **Randy L. Korotev** and **Ryan Zeigler**

Economics

James C. Morley, 2009 Outstanding Faculty Mentor award from the Graduate Student Senate in Arts & Sciences

English

Carl Phillips, selected for the third time as a finalist for the 2009 National Book Award in poetry for his 10th collection of poetry, *Speak Low*

Gary S. Wihl, named the Hortense and Tobias Lewin Distinguished Professor in the Humanities

Film and Media Studies

Gaylyn Studlar, named the David May Distinguished University Professor in the Humanities

Germanic Languages and Literatures

The Max Kade Center on Contemporary German Literature, directed by **Paul Michael Lützeler** celebrated 25 years

Gerhild S. Williams, named vice provost

History

St. Louis Public Schools' social studies teacher of the year award was named in honor of **David T. Konig**

Steven Hause, awarded Innovative Entrepreneurship Education Course Award from the U.S. Association of Small Business and Entrepreneurship for his course "Economic History and Entrepreneurialism in Modern Western Civilization"

Elizabeth Borgwardt, winner of the 2009 Stuart L. Bernath Lecture Prize from the Society for Historians of American Foreign Relations

International and Area Studies

Priscilla Stone, named assistant provost for international education

James V. Wertsch, named a 2009 Fellow of the American Academy of Arts & Sciences; appointed as university associate vice chancellor for international affairs

Performing Arts

Sean Savoie, received 2009 Rising Star Award from the U.S. Institute for Theatre Technology

Carter Lewis, Best New Play, *Evie's Waltz*, from Repertory of St. Louis.

Philosophy

Mark Rollins, named to the newly created position of Faculty Fellow in the Office of the Provost

Political Science

Matthew Gabel, selected for 2010 John Simon Guggenheim Memorial Foundation Fellowship

Mona Lena Krook, 2009 Outstanding Faculty Mentor award from the Graduate Student Senate in Arts & Sciences

Norman J. Schofield, received the W. Glenn Campbell and Rita Ricardo-Campbell National Fellow at the Hoover Institution, Stanford University, to work on an original research project, "The Political Economy of Democracy and Autocracy"

James F. Spriggs, 2009 Outstanding Faculty Mentor award from the Graduate Student Senate in Arts & Sciences

Psychology

Henry L. "Roddy" Roediger, III, received 2009 Washington University Arthur Holly Compton Award for Faculty Achievement

Physics

Thomas J. Bernatowicz, professor, received the 2009 inaugural Arts & Sciences David Hadas Teaching Award.

Ramanath Cowsik, 2009 O'Ceallaigh Medal by the International Union of Pure and Applied Physics' Cosmic Ray Commission and the Dublin Institute for Advanced Studies

Romance Languages and Literatures

Stephanie Kirk, 2009 Outstanding Faculty Mentor award from the Graduate Student Senate in Arts & Sciences

Elzbieta Sklodowska, received 2009 Washington University Distinguished Faculty Award; 2009 inaugural Arts & Sciences Distinguished Leadership Award; named to the newly created position of Faculty Fellow in the Office of the Provost

Women, Gender and Sexuality Studies

Mary Ann Dzuback, received 2009 inaugural Arts & Sciences Distinguished Leadership Award

SELECTED PUBLICATIONS

January 2009 through March 2010

Anthropology

John Bowen
Can Islam be French? Pluralism and Pragmatism in a Secularist State, Princeton University Press (2009)

Bret Gustafson
New Languages of the State: Indigenous Resurgence and the Politics of Knowledge in Bolivia, Duke University Press (2009)

Shanti Parikh
The Secret: Love, Marriage and HIV, co-authored, Vanderbilt University Press (2010)

Art History and Archaeology

William E. Wallace
Michelangelo: The Artist, the Man and His Times, Cambridge University Press (2010)

Alicia Walker
Negotiating Secular and Sacred in Medieval Art: Christian, Islamic, and Buddhist, co-edited with Amanda Luyster, Ashgate Publishers (2009)

Asian and Near Eastern Languages and Literatures

Robert Hegel
True Crimes in Eighteenth-Century China: Twenty Case Histories, University of Washington Press (2009)

Marvin Marcus
Reflections in a Glass Door: Memory and Melancholy in the Personal Writings of Natsume So-sek, University of Hawaii Press (2009)

English

Mary Jo Bang
The Bride of E, Graywolf Press (2009)

Gerald Early
Best African American Essays 2010, Best African American Fiction 2010, Best African American Essays 2009, and Best African American Fiction 2009, New York: Bantam Books (2009, 2010)

Marina MacKay
The Cambridge Companion to the Literature of World War II, Cambridge University Press (2009)

Robert Milder
The Business of Reflection: Hawthorne in His Notebooks, co-edited, Ohio State University Press (2009)

Carl Phillips
Speak Low, Farrar, Straus & Giroux (2009)

Economics

Michele Boldrin
Tremonti, istruzioni per il disuso, with Alberto Bisin, Sandro Brusco, Andrea Moro, Giulio Zanella, Ancora del Mediterraneo (2010)

Germanic Languages and Literatures

William Layher, Gerhild Williams
Consuming News: Newspapers and Print Culture in Early Modern Europe (1500-1800), Editors, Amsterdam: Rodopi (2009)

Paul Michael Lützeler
Buergerkrieg Global: Menschenrechtsethos und deutschsprachiger Gegenwartsroman, Munich: Fink (2009)

Lynne Tatlock
Catharina Regina von Greiffenberg: Meditations on the Incarnation, Passion and Death of Jesus Christ, (The Other Voice in Early Modern Europe), edited, introduced, and translated, University of Chicago Press (2009)

History

Lori Watt
When Empire Comes Home: Repatriation and Reintegration in Postwar Japan, Cambridge: Harvard University Asia Center (2009)

Mathematics

David Wright
Mathematics and Music, American Mathematical Society (2009)

Music

Peter Schmelz
Such Freedom, If Only Musical: Unofficial Soviet Music During the Thaw, Oxford University Press (2009)

Philosophy

Christopher Wellman
A Theory of Secession: The Case for Political Self-Determination, Cambridge University Press (2009)

Political Science

Mona Lena Krook
Quotas for Women in Politics: Gender and Candidate Selection Reform Worldwide, New York: Oxford University Press (2009)

William R. Lowry
Repairing Paradise: The Restoration of Nature in America's National Parks, The Brookings Institution (2009)

Douglass C. North
Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History, Cambridge University Press (2009)

Guillermo Rosas
Curbing Bailouts: Bank Crises and Democratic Accountability in Comparative Perspective, University of Michigan Press (2009)

Norman J. Schofield
The Political Economy of Democracy and Tyranny, Oldenbourg (2009)

Andrew Sobel
Challenges of Globalization: Immigration, Social Welfare, Global Governance, edited, Routledge (2009)

Stephanie Springer
Reforming the Presidential Nomination Process, co-edited, Brookings Institution Press (2009)

Psychology

Pascal Boyer and James Wertsch (Anthropology)
Memory in Mind and Culture, New York: Cambridge University Press (2009)

Dawn Brancati
Peace by Design: Managing Ethnic Conflict through Decentralization, Oxford and New York (2009)

Randall Larsen
Personality Psychology, with David Buss, New York: McGraw-Hill (2010)

Henry L. Roediger, III
Experimental Psychology: Understanding Psychological Research, Wadsworth (2009)

Romance Languages and Literatures

William G. Acree, Jr.
Building Nineteenth-Century Latin America: Re-Rooted Cultures, Identities, and Nations, co-edited, Nashville: Vanderbilt University Press (2009)

Ignacio M. Sánchez Prado
Naciones intelectuales. Las fundaciones de la modernidad literaria mexicana (1917-1959), West Lafayette, IN: Purdue University Press (2009)

Elzbieta Sklodowska
Espectros y espejismos: Haiti? en el imaginario cubano (Specters and Mirages: Haiti in Cuban Imaginary), Madrid: Iberoamericana (2009)



EXTERNAL GRANTS

January 2009 through March 2010

Anthropology

Rebecca Lester (and graduate student **Anubha Sood**), \$7,025 grant from the NSF for "Women's Pathways to Mental Health: Comparing Psychiatry and Mystical-Spiritual Healing in Urban North India"

Herman D. Pontzer

\$196,972 grant from the NSF for "Metabolic Cost of Living in Human Foragers." (with Susan B. Racette, physical therapy)
\$23,950 grant from the Wenner-Gren Foundation for research titled "Metabolic Cost of Living in Bonobos"
\$20,484 grant from the NSF for "Hominin Gait Optimization and Analysis Using Evolutionary Dynamic Modeling" (with William D. Smart, engineering)

Biology

Yehuda Ben-Shahar, \$456,000 grant from the National Institute on Deafness and Other Communication Disorders for "Chemosensory Roles for Epithelial Sodium Channels"

Robert E. Blankenship

\$20 million — the largest grant ever received on the Danforth Campus — from the DOE to establish a Photosynthetic Antenna Research Center (PARC)

\$900,000 grant from the DOE for "SISGR: Controlling Electron Transfer Pathways in Photosynthetic Reaction Centers." (with **Dewey Holten** and **Christine Kirmaier**, chemistry)

Tiffany M. Knight (with postdoctoral research associate **Laura A. Burkle**) \$74,998 grant from the NSF for "RAPID: Comparing Historic and Contemporary Plant-Pollinator Interaction Networks to Investigate the Effects of Climate Change and Invasive Species"

Jonathan M. Chase, Brian Allan, Robert E. Thach, \$237,439 grant from the EPA for "Developing Landscape Design Guidelines For Mitigating Human Risk Of Lone Star Tick-Associated Pathogens"

Ellen Damschen (with postdoctoral research associate **Dirk V. Baker**), in biology, \$140,323 grant from the NSF for "How Structural Heterogeneity and Connectivity of Landscapes Affect Wind Dispersal"

Sarah C.R. Elgin, \$201,488 grant from the National Institute of General Medical Sciences for "Formation, Structure and Function of Heterochromatin"

Ursula W. Goodenough, \$430,000 grant from the NSF for "Development of Sexual Cycles in Marine Picoprasinophytes Based on Molecular Homologies with Chlamydomonas Sexual Cycles"

Elizabeth Haswell, \$408,562 subaward from the California Institute of Technology for "Biophysical, Structural and Functional Analysis of Mechanosensitive Channels"

Allan Larson (and graduate student **Joshua Reece**), \$9,020 grant from the NSF for "Phylogenetics and Phylogeography of Moray Eels (Muraenidae): the First Coral Reef Fishes With Panmictic Populations Throughout the Entire Indo-Pacific"

Victoria May, \$36,878 subcontract from Cornell University for "Microbial Fuel Cell Technology for Large-Scale Wastewater Treatment"

Kathryn G. Miller

\$280,350 grant from the NSF for a program titled "REU Site: Cellular and Developmental Biology Research Apprenticeship Program at Washington University in St. Louis (CD-BioRAP)"
\$40,000 grant from the Children's Discovery Institute (CDI) for the CDI Summer Undergraduate Research Fellowship Program

Kenneth Olsen, \$915,000 CAREER award from the NSF for "Clover Cyanogenesis: Integrating Ecological and Molecular Genetics in the Study of Adaptation"

Himadri B. Pakrasi, \$1.8 million grant for I-CARES, from the DOE for "Development of Cyanobacteria as a New Model Organism for Biological Hydrogen Production"

Peter H. Raven (with graduate student **Kyra Krakos**) \$10,873 grant from the NSF for "The Role of Reproductive Trait Shifts in the Diversification of Oenothera (Onagraceae)"

Robert Thach, \$25,000 subaward from Time for Lyme Inc. for "Vertebrate Reservoirs for Tick-Borne Diseases in the Central United States"

Chemistry

Dewey Holten and **Christine Kirmaier**, (with **Robert Blankenship** in biology), \$900,000 grant from the DOE for "SISGR: Controlling Electron Transfer Pathways in Photosynthetic Reaction Centers"

Michael L. Gross, \$40,166 grant from the National Center for Research Resources for "A Resource for Biomedical Mass Spectrometry," for students learning under **Henry Rohrs**

Sophia E. Hayes, \$375,539 grant from the NSF for "MRI: Development of Combined Optically-pumped and Optically-detected NMR of Bulk and Nanostructured Semiconductors"

Richard A. Loomis, \$356,048 grant from the NSF for "Experimental Interrogation of Exciton Dynamics Within One-Dimensional Semiconductor Quantum Materials"

Liviu M. Mirica, \$100,000 grant from the American Chemical Society Petroleum Research Fund for "Renewable Energy Catalysis: The Study of Water Oxidation by Binuclear Metal Complexes"

Kevin D. Moeller, \$455,000 grant from the NSF for "New Synthetic Methods for Building Chip Based Libraries"

Postdoctoral research associate **Gang Shen**, \$342,000 grant from the U.S. Army Medical Research Acquisition Activity for "Development of Lipid and Nanoparticle-Based Anti-sense Breast Cancer Imaging Agents"

Earth and Planetary Sciences

Jan P. Amend

\$169,975 grant from the NSF for "RCN: A Deep-Biosphere Research Coordination Network"

\$293,261 grant from the NSF for "Development of Numerical Models Linking Fluid Geochemistry and Biological Communities in Mid-Ocean Ridge Hydrothermal Environments"

Raymond E. Arvidson

\$9 million for the Earth and Planetary Remote Sensing Laboratory from NASA to extend and improve the Geosciences Node of the Planetary Data System (PDS)
\$30,652 subaward from the Colorado School of Mines for research titled "The Sedimentary Record of Arabia Terra: Remote Sensing and Hydrologic-Climatic Modeling"

Robert Criss

\$65,863 subcontract from University City, Missouri, Department of Public Works, for "Geochemical Monitoring of the River Des Peres in University City"
\$35,000 subaward from the Missouri Botanical Garden for "Missouri Botanical Garden Deer Creek Watershed Initiative"

David Fike

\$265,247 grant from NASA for "Insights into the Late Archean Sulfur Cycle From a Unique Combination of SIMS Analysis of Multiple Sulfur Isotopes and Scanning SQUID Microscopy of Sedimentary Pyrite and Carbonate-Associated Sulfate"
\$213,900 grant from The Agouron Institute for "Constraining the Ediacaran-Paleozoic Rise of Oxygen"

Anne Hofmeister

\$121,646 grant from the NSF for "An Integrated Experimental and Observational Study of Cosmic Silicate Astromineralogy"

\$74,939 grant from the NSF for "Incorporating Temperature-dependent Physical Properties Into Numerical Models of Magmatic and Related Hydrothermal Systems"

Randy Korotev

\$213,000 grant from NASA for "Geochemical and Petrologic Analysis and Modeling of Lunar Rocks and Regoliths"

Katharina Lodders, \$92,000 grant from NASA for "Bright Earths: Models of the Post Giant Impact Atmospheres of Young Terrestrial Planets"

William McKinnon, \$264,622 from NASA for "Numerical Studies of Convection and Tectonics in Icy Satellites"

Frederic Moynier, \$171,153 from NASA for "The Isotopic Composition of Transition Metals in Lunar Materials: Solar Wind Implantation and Stable Isotopic Fractionations"

Jill Pasteris, \$376,200 from the NIH for "Structure function Relationships at the Tendon-to-Bone Insertion Site," with P.I. Steve Thomopoulos of the medical school

Philip Skemer, \$285,000 grant from the NSF for "Deformation and Microstructural Evolution of Harz-burgite"

Douglas A. Wiens

\$413,112 grant from the NSF for "Mantle Serpentinization and Water Cycling Through the Mariana Trench and Forearc"

\$249,999 grant from the NSF for "Polenest East: An International Seismological Network for East Antarctica"

\$193,416 grant from the NSF for "Extending the Lau Imaging Experiment to Study the Deep Tonga Seismic Zone"

Douglas A. Wiens, Michael E.

Wyession, and **Viatcheslav Solomatov**, \$74,881 grant from the NSF for "Acquisition of a New Linux-Based Computer System for Geophysical Research"

Michael Wyession and Douglas A.

Wiens, \$725,417 grant from the NSF for "Investigation of Sources of Intraplate Volcanism Using PASSCAL Broadband Instruments in Madagascar, The Comores, and Mozambique (MACOMO)"
\$389,949 from the NSF for "Development of New Rotational Seismometers of High Sensitivity" (with **Ram Cowsik**, physics)

Economics

Haluk Ergin, \$201,644 grant from the NSF for "A Subjective Model of Temporal Preferences"

David K. Levine, \$212,040 grant from the NSF for "Applications of the Self Control/Dual Self Model in Economics"

Robert A. Pollak, \$335,516 grant from the Eunice Kennedy Shriver National Institute of Child Health & Human Development for "Time Use and Household Production"

Education

Anne Newman, \$55,000 grant from the National Academy of Education for "Collaborating to Realize Rights: Lawyers, Community Groups, and Education Reform"

English

J. Dillon Brown

British Studies Fellowship Award at Harry S. Ransom Center, University of Texas

Sarah Rivett (and Stephanie Kirk,

Spanish), \$5,000 grant from the Program for Cultural Cooperation Between Spain's Ministry of Culture and United States Universities to fund a conference titled "Religious Transformations in the Early Modern Americas"

Interdisciplinary Project in the Humanities

Joe Loewenstein, \$290,000 grant from the NEH for Edmund Spenser project

Mathematics

Nan Lin, \$119,934 grant from the NSF for "Statistical Aggregation in Massive Data Environments"

John McCarthy, co-PI, \$959,477 grant to the Medical School, from NIH for "Monitoring Disease and Therapy in Dystrophin-Deficient Muscle Using Ultrasound"

John Shreshian, \$196,821 grant from the NSF for "Algebraic, Topological and Enumerative Combinatorics"

Xiang Tang, \$109,088 grant from the NSF for "Noncommutative Geometry: Its Applications to Geometry and Analysis"

Performing Arts

Annamaria Pileggi, \$487,209 from the NSF for "A Physical Vocabulary for Human-Robot Interaction"

Philosophy

Christopher H. Wellman, \$123,371 grant from the NEH for a summer seminar for college and university professors titled "Philosophical Perspectives on Liberal Democracy and the Global Order"

Physics

W. Robert Binns, \$3,225,740 grant from NASA for "Super-TIGER: A Very-Large-Area, High-Resolution Trans-Iron Cosmic Ray Investigation." **Martin H. Israel** is a co-investigator; other WUSTL investigators are **James H. Buckley** and **Henric S. Krawczynski**

Anders E. Carlsson, \$1,026,560 grant from the NIH for "Control of Actin Assembly and Cell Migration by Actin-Regulating Proteins"

Ramanath Cowsik

\$502,191 grant from the NSF for "Experimental Investigation of Forces in the Submillimeter Range"
\$389,949 grant from the NSF for "Development of New Rotational Seismometers of High Sensitivity." (with **Doug Wiens** and **Michael Wyession**, earth and planetary sciences)

Francesc Ferrer, \$120,000 grant from the NSF for "Research in Cosmic Rays, Magnetic Fields and the Nature of Dark Matter"

Christine Floss, \$168,493 grant from NASA for "Search for Impact Craters on the Stardust Interstellar Collector Tray"

Kenneth F. Kelton, \$405,000 grant from the NSF for "Relations Between Structure, Phase Formation and Phase Transitions in Supercooled Metallic Liquids and Glasses"

Henric Krawczynski

\$244,472 subcontract from the University of Illinois at Urbana-Champaign for "A CdZnTe Detector for MRI-Compatible Spect Systems"

\$921,717 grant from NASA for "Optimization of CZT Detectors with Sub-mm Pixel Pitches"
\$98,000 grant from NASA for "Revisiting the Blazar Sequence Based on Contemporaneous Swift and Fermi Blazar Observations"
\$32,592 grant from NASA for "Target of Opportunity Observations of the Blazars MRK 421, MRK 501, and 1ES 1959 650"

Alexander Meshik, \$751,834 grant from NASA for "Analysis and Interpretation of Genesis Mission Noble Gases"

James C. Miller, \$1,306,757 grant from the National Institute of Arthritis and Musculoskeletal and Skin Diseases for "Enhancing Bone Quality Assessment Using Quantitative Ultrasound"

Frank J. Stadermann, \$368,540 grant from NASA for "Atom-Probe Tomographic Studies of Individual Meteoritic Nanodiamonds"

Jason C. Woods, \$1,508,000 grant from the National Heart, Lung, and Blood Institute for "Evaluation of Endobronchial Interventions for COPD via CT and 3He MRI"

Ernst Zinner, \$1,921,500 grant from NASA for "Laboratory Studies of the Isotopic Compositions of Presolar Dust Grains"

Psychology

Deanna M. Barch, \$798,000 grant from the National Institute of Mental Health for "Cognitive Neuroscience Task Reliability and Clinical Applications Consortium"

Todd Braver

\$418,000 grant from the National Institute on Drug Abuse for "Negative Reinforcement Effects on Neural Mechanisms of Cognitive Control"
\$376,812 supplemental grant from the National Institute of Mental Health for ongoing research titled "Dual Mechanisms of Cognitive Control"



EXTERNAL GRANTS

(Continued from page 33)

Mark A. McDaniel and **Todd Braver**, \$780,796 grant from the National Institute on Aging for "Neural Mechanisms of Age-Related Changes in Prospective Memory"

Henry L. "Roddy" Roediger, III, **Larry L. Jacoby**, **Mark A. McDaniel**, and **Kathleen B. McDermott**, \$6.47 million collaborative activity grant from the James S. McDonnell Foundation, to use what cognitive psychologists in the discover laboratory to improve learning in the classroom

Mitchell Sommers, \$556,027 grant from the NSF for "RI: Medium: Collaborative Research: The Effect of Subglottal Resonances on Machine and Human Speaker Normalization"

Michael Strube, \$275,000 from National Institutes of Health for "Effects of Weight Bearing Exercise on People with Diabetes and Neuropathic Feet"

KEY

National Science Foundation (NSF)
U.S. Department of Energy (DOE)
U.S. Environmental Protection Agency (EPA)
U.S. National Aeronautics and Space Administration (NASA)
U.S. National Endowment for the Humanities (NEH)
U.S. National Institutes of Health (NIH)

Rebecca Treiman, \$26,319 from the National Science Foundation of China for "Early Development of Writing in Chinese Children Aged Between 2 and 6: Comparison Between Writing and Drawing, Character Writing and English Writing"

Carol Woods \$137,747 subaward from the University of Missouri-St. Louis for "Neuropathogenesis of Clade C HIV in South Africa"

\$67,012 grant from the NSF for "Differential Item Functioning (DIF) Testing With Estimation of the Latent Densities"

Political Science

Dawn Brancati, \$119,300 grant from the NSF for "Another Great Illusion: The Advancement of Separatism through Economic Integration"

James L. Gibson \$98,700 grant from the NSF for "SCER: Money, Politics, and the Legitimacy of State Supreme Courts: The Impact of Recusals and Disqualifications"

\$40,000 grant from the NSF for "Public Support for the Supreme Court in the Obama Era: Expectancy Theory and the Replacement of Justice Souter"

Andrew D. Martin \$75,688 subaward from Northwestern University for "Backdating the U.S. Supreme Court Judicial Database, 1793-1946"

\$7,000 grant from the NSF for "Discrete Time-Series Cross-Section Models of Political Economy" (with graduate student **Xun Pang**)

Steven S. Smith (and Sarah A. Binder, fellow at Brookings Institution), grant from The Brookings Institution and WUSTL's Academic Venture Fund for "The Rise and Reform of the 60-Vote Senate Project"

\$597,000 from the NSF for "Empirical Implications of Theoretical Models Summer Institute"

Romance Languages and Literatures

Stephanie Kirk (and **Sarah Rivett**, English) \$5,000 grant from the Program for Cultural Cooperation Between Spain's Ministry of Culture and United States Universities to fund a conference titled "Religious Transformations in the Early Modern Americas"

Center for the Humanities

Gerald L. Early, \$208,521 grant from the NEH to sponsor a 2010 summer institute for school teachers titled "The New Negro Renaissance in America, 1914-1941." Other A&S faculty included in institute: **Rafia Zafar** of English and of African and African American studies, **Joseph Thompson** of African and African American studies, **Patrick Burke** of music, and **Sowande Mustakem** of history

Center for Materials Innovation

Tyrone L. Daulton, \$35,176 grant from the Naval Research Laboratory for "Microcharacterization of Biogenic Nanowire Structures by Electron Microscopy"

STRENGTHENING ARTS & SCIENCES: New National Council Head Barbara Schaps Thomas

When Barbara Schaps Thomas, A.B.'76, came to Washington University as a freshman, she was more interested in performing arts than in practical skills—like balancing her checkbook. But by the time she graduated, she had made it all the way to infinite matrix math, and her horizons had broadened forever. Soon she had moved into a business career, and today she is senior vice president and chief financial officer of HBO Sports.

"Arts & Sciences gave all of us the ability to communicate our thoughts clearly, think both strategically and creatively and, most importantly, understand other points of view. The results: we were able to pursue professional degrees and positions with success," she says. "Going through Washington University's program taught us how to reason and write. That is the real strength of Arts & Sciences."

It is the heart and soul of the university. Barbara Schaps Thomas

Since fall 2009, Thomas has been bringing her skills and commitment to a new role: chair of the National Council for Arts & Sciences. Previously vice chair of the Council, she assisted her predecessor, Earle H. Harbison, Jr., A.B.'48, chairman of the Harbison Corporation and former president and chief operating officer of Monsanto Corporation, who served as chair for 18 years.

Harbison, she says, was a marvelous mentor and a dedicated Council head. With great skill, he led the group in advising Dean Edward Macias, who built Arts & Sciences to new prominence. "Earle did a tremendous job in giving Arts & Sciences the respect and renown that it has," says Thomas.

Now Thomas has taken over, with Harry Seigle, A.B.'68, as vice chair, heading the 46-member Council during an important transitional period. With Macias now university provost, new Dean Gary Wihl is making plans to continue building Arts & Sciences and highlighting its educational prominence. Twice a year, the Council has meetings in St. Louis, at which they assemble with the dean to advise, assist

and advocate for Arts & Sciences.

They will need to be fluid and reactive, given the economic stress facing the University and entire country. It is a challenging time, yet her lively, energetic members are just "chomping at the bit to participate," she says. "Dean Wihl wants interactivity and feedback from the Council and I know he will get it, because this dynamic group is not hesitant to state opinions."

As she moves forward in her new role, Thomas has some goals for the Council. She would like to increase and diversify its membership, adding people who can also spend time between meetings on Council work. She will implement a new Council structure, developed by the dean, consisting of committees that deal with the educational mission of Arts & Sciences, the university and the public and the faculty in the 21st century.

Unfortunately, some people—even graduates—don't think of Arts & Sciences as a discrete entity within the University. A French major recalls the French department; a history major thinks of history. Encouraging graduates to remember that they were part of a wide-ranging liberal arts curriculum, she says, poses a tough fund-raising challenge.

The experience of her own son, Jeremy S. Thomas, A.B.'08, testifies to the success of this broad curriculum. Before coming to the University, he planned to major in physics, but then became interested in literature, graduating with a comparative literature major and both a physics and French minor. However, his physics background was still strong enough that, as a new recruit in the Teach For America program, he could jump readily into a job as a middle school science teacher in New York City.

How easy it is to feel motivated by a program like that, she says. Arts & Sciences "is one of the best programs of its kind in the country and probably one of the best in the world. It is the heart and soul of the university."

Arts & Sciences National Council 2010

Chair
Barbara Thomas LA76
Senior Vice President
and Chief Financial Officer
HBO Sports, Inc.

Vice Chair
Harry Seigle LA68
Chairman, Seigle's, Inc.

Immediate Past Chair
Earle H. Harbison, Jr. LA48
Chairman, Harbison Corporation
Retired President, Monsanto Corporation

John Biggs GR83
Former Chairman and Chief Executive Officer
TIAA-CREF Trust Company

Gordon Black LA64
Chairman and Chief Executive Officer
Harris Interactive, Inc.

Kate Bloch LA83 GR83
Professor, University of California, Hastings

Joanne Boher LA74
Senior Vice President
General Counsel and Secretary
JC Penney Company, Inc.

Morris C. Brown LA67 LW70
Shareholder, Greenberg Traurig

Barbara Bryant LA68
Retired Elementary Teacher

John Michael Clear LA71
Partner, Bryan Cave, LLP

Carol Epstein UC08 GR08
Community Volunteer, Animal Welfare & Humane Education

Jon Feltheimer LA72
Co-Chairman and CEO
Lionsgate Entertainment

Steven Fradkin LA84
President, Corporate & Institutional Services
National Trust Corporation

Henrietta Freedman LA75
Retired Vice President, SEMCOR

Mark J. Ginsburg LA73 HS81
Retired Internal Medicine/Rheumatology
Rheumatology Associates of Southern Florida

Andrea J. Grant LA71 LW74
Partner, Piper Rudnick LLP

Narmen Fennoy Hunter GR73
President and CEO, Fennoy Consulting Group

Diane D. Jacobsen GR95
GR00 GR03
Retired President
The DeMell Group

David W. Kemper
Chairman, President, and Chief Executive Officer, Commerce Baneshares, Inc.

Lawrence P. Klamon LA58
Retired President and Chief Executive Officer, Fuqua Enterprises

Wilfred R. Konneker GR50
Retired President
Konneker Development Corporation

Kenneth Kousky LA76
President & Chief Executive Officer
Ip3, Inc.

Sanford Loewentheil LA76
Partner, L&M Equity Participants, Ltd.

Carolyn Losos LA54
Executive Director
Lewis and Clark Foundation

Kenneth Makovsky LA62 LW65
President, Makovsky & Co., Inc.

Mark E. Mason LA51
Vice Chairman
Oxford Development Co.

Michael Newmark LA60 LW62
Partner, Bryan Cave, LLP

Paul Pariser LA76
Co-Founder & Co-CEO
Taconic Investment Partners, LLC

William B. Pollard III LA70
Partner/Attorney
Kornstein Veisz Weider & Pollard

Ronald Rettner LA72
President, Rettner Management/
Baron Associates

Richard Rosenthal LA55
Insurance Sales
Rosenthal Associates

Thomas K. Ryan GR76
Retired Vice President
Goldman Sachs & Co.

Michael Salem LA82
President and Chief Executive Officer
National Jewish Medical and Research Center

James M. Schwartz LA76
Group Executive Vice President
Masi Industries, Inc.

Russell Schwartz LA77
Senior Vice President
Business Affairs
HBO & Company

Bradley J. Siegel LA79
Vice Chairman
Gospel Music Channel

Nicholas E. Somers LA84
Partner, Schroeder Ventures

Gary Summers LA75
Senior Managing Director & COO—Real Estate Group
The Blackstone Group, L.P.

Judith E. Tytel LA68
Assistant General Counsel
Pfizer, Inc.

Georgia Van Cleve Colwell LA51

Bob Virgil MBA60 DBA67
Dean Emeritus, John M. Olin School of Business
Washington University in St. Louis

Retired, Edward Jones

Gregg A. Walker LA94
Vice President for Mergers/
Acquisitions, Viacom

Joseph F. Wayland LA79
Partner
Simpson Thacher & Bartlett

Mark S. Weil LA61
E. Desmond Lee Professor Emeritus
Director, LECC

Kiki Wilson LA74
Retired, Delta Airlines, Inc.

Eugene Zeffren LA63
Retired Executive Vice President
and Chief Operating Officer
Unilever Home & Personal Care

NEW FACULTY 2009-2010

Roshan Abraham
Ph.D., University of Pennsylvania
Assistant Professor of Classics
and of Religious Studies

William Acree
Ph.D., University of North Carolina at Chapel Hill
Assistant Professor of Spanish

Pannill Camp
Ph.D., Brown University
Assistant Professor of Drama

Shefali Chandra
Ph.D., University of Pennsylvania
Assistant Professor of History and of International and Area Studies

Frederick Eberhardt
Ph.D., Carnegie Mellon
Assistant Professor of Philosophy
and of Philosophy-Neuroscience-
Psychology

David Fike
Ph.D., Massachusetts Institute of Technology
Assistant Professor of Earth
and Planetary Sciences

Ignacio Infante
Ph.D., Rutgers University
Assistant Professor of Comparative Literature and of Romance Languages and Literatures

Sonia Lee
Ph.D., Harvard University
Assistant Professor of 20th-century African-American History

William J. Maxwell
Ph.D., Duke University
Associate Professor of English
and of African and African American Studies

John W. Patty
Ph.D., California Institute of Technology
Associate Professor of Political Science

Elizabeth Maggie Penn
Ph.D., California Institute of Technology
Associate Professor of Political Science

Crickette Sanz
Ph.D., Washington University in St. Louis
Assistant Professor of Anthropology

Philip Skemer
Ph.D., Yale University
Assistant Professor of Earth and Planetary Sciences

Priscilla Song
Ph.D., Harvard University
Assistant Professor of Anthropology

Gaylyn Studlar
Ph.D., University of Southern California
Director Film and Media Studies,
David May Distinguished University Professor in the Humanities

Sarah Westphal-Wihl
Ph.D., Yale University
Associate Professor of Germanic Languages and Literatures

Gary S. Wihl
Ph.D., Yale University
Dean of the Faculty of Arts & Sciences
and Professor of English, Hortense and Tobias Lewin Distinguished Professor in the Humanities

Li Yang
Ph.D., Georgia Institute of Technology
Assistant Professor of Physics

The Faculty of Arts & Sciences

Gary S. Wihl
Dean, Faculty of Arts & Sciences
Hortense and Tobias Lewin Distinguished
Professor in the Humanities

James E. McLeod
Dean, College of Arts & Sciences
Vice Chancellor for Students

Robert E. Wiltenburg
Dean, University College in Arts & Sciences

Richard J. Smith
Dean, Graduate School of Arts & Sciences
Ralph E. Morrow Distinguished University
Professor in Arts & Sciences

Dennis Martin
Associate Dean

Larry Kuykendall
Associate Dean, Finance

Laura Barker
Administrative Assistant

Jonathan Cohen
Senior Human Resources Professional

Elizabeth Deal
Director of Communications

Jennifer Gibbs
Administrative and Events Coordinator

Nancy Lyons
Assistant to the Dean

Jason Patton
School Accountant

Rachel Retzlaff
Personnel and Payroll Processor

Tom Simmons
Director of Facilities

Stephanie Smith
Payroll and Accounting Assistant

Tara Warne
Research Analyst

Ken Keller
Director of Arts & Sciences Computing

Kathy Atnip
Academic Projects and Systems Coordinator

Gary Kornell
Senior Director of Development
for Arts & Sciences

Department Chairs

Anthropology	T.R. Kidder
Art History and Archaeology	Elizabeth Childs
Asian and Near Eastern Languages and Literatures	Fatemeh Keshavarz
Biology	Kathryn Miller
Chemistry	Joseph Ackerman
Classics	Judith Evans Grubbs
Earth and Planetary Sciences	Douglas Wiens
Economics	Michele Boldrin
Education	William Tate
English	Vincent Sherry
Germanic Languages and Literatures	Stephan Schindler
History	Jean Allman
Mathematics	David Wright
Music	Dolores Pesce
Performing Arts	Robert Henke
Philosophy	Mark Rollins
Physics	Kenneth Kelton
Political Science	Andrew Martin
Psychology	Randy Larsen
Romance Languages and Literatures	Elzbieta Sklodowska

Program and Center Directors

African and African American Studies	Garrett Duncan
American Culture Studies	Randy Calvert
Center for Applied Statistics	Jeff Gill
Center for Materials Innovation	Stuart Solin
Center for New Institutional Social Sciences	Itai Sened
Center for Political Economy	Norman Schofield
Center for the Humanities	Gerald Early
Center for the Study of Regional Competitiveness in Science and Technology	William Tate
Center for Urban Research and Policy	Carol Camp Yeakey
Comparative Literature	Harriet Stone
Environmental Studies	Jan Amend
Film and Media Studies	Gaylyn Studlar
Interdisciplinary Program in Archaeology	David Browman
Interdisciplinary Project in the Humanities	Joseph Loewenstein
International and Area Studies, Overseas Programs	James Wertsch
Jewish, Islamic and Near Eastern Studies	Pamela Barmash
Max Kade Center for Contemporary German Literature	Paul Michael Lützeler
McDonnell Center for the Space Sciences	Ramanath Cowsik
Philosophy-Neuroscience-Psychology	José Bermúdez
Religious Studies	Daniel Bornstein
Tyson Research Center	Jonathan Chase
Weidenbaum Center on the Economy, Government, and Public Policy	Steven Smith
Women, Gender, and Sexuality Studies	Mary Ann Dzuback