

Tufts

ALMA MATTERS

- The Danish Pastry House

Tufts

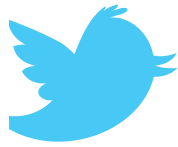
- Tufts Office of
Community Relations

The Mechanics of Good Citizenship

- The Welcome Project

- Somerville's Office of Strategic Planning
and Community Development

- SomerPromise



flickr

Fantastic Four

LinkedIn

blog

In early 2011, the Graduate School of Arts and Sciences was just dipping its toes into the world of social media with the launch of the @TuftsGSAS twitter feed.

Since then, Tufts' GSAS has taken the social media plunge with the launch of its Flickr photostream, LinkedIn group, and higher ed blog.

The goal of these four social media channels? To engage graduate students, alumni, faculty members, and staff in conversations; provide a means for career networking; capture graduate life in pictures; and share practical advice (ranging from how to get research published to how to land a tenure-track job).

We encourage you to join the conversation by following Tufts' GSAS on Twitter, joining our LinkedIn group, visiting our Flickr page, and reading (and commenting) on our blog.

The Tufts University **Graduate Community group on LinkedIn** is a way for students and alumni of the Graduate School of Arts and Sciences and the School of Engineering's graduate programs to network, share best practices related to job searches, and participate in discussions. To join the graduate community group, follow these directions.

- Go to <http://www.linkedin.com>, log in (or join), and search by "Group."
- Type in "Tufts University Graduate Community" and click the button that says, "Join Group." Your request will be sent to the group's administrator.

GradMatters is a monthly higher education blog published by Tufts' GSAS. Recent posts include, "Can't-Miss Tips for Writing a Thesis or Dissertation"; "Road Warriors: What Every Grad Student Needs to Know About Presenting at Conferences or Meetings"; and "A Graduate Student Guide to Publishing Your Research." <http://sites.tufts.edu/gradmatters>

Each week, the **Graduate School of Arts and Sciences Twitter feed** is populated with news about graduate students, graduate alumni, and GSAS and Arts and Sciences faculty members; tweets from current graduate students and alumni; updates about events on campus; and compelling information for current and prospective students. <http://www.twitter.com/TuftsGSAS>

Photo sets on the **Graduate School of Arts and Sciences Flickr photostream** include a glimpse of graduate student life courtesy of photos submitted for the annual Graduate Student Life Photo Contest; images from a graduate student's research in Chile; photos from the excellent summer sustainability adventure of a recent graduate; and art from a graduate alumnus whose creations are inspired by his time as a soldier in Iraq. <http://www.flickr.com/TuftsGSAS>



contents

SUMMER/FALL 2012 VOL.7 NO.1

features

11 Good Neighbors

Doing well at doing good in Medford and Somerville.
by Johanna Schlegel

15 Elephants in the Room

Tufts pundits on the path to the polls, the rift on the right,
and why we all can't just get along.
by Robert Bochnak

19 Wrecking Balls in the West End

How a confluence of professional, institutional,
governmental, and bureaucratic forces brought a storied
neighborhood to rubble.

*by Daniel Abramson, Associate Professor and
Chair in the Department of Art and Art History*



15

departments

- 2 SETTING THE STAGE
MESSAGE FROM THE EDITORS
- 3 QUAD ANGLE
NEWS AND ACHIEVEMENTS
- 23 ON CAMPUS

On the cover: Read about some
active citizens at their best in
Medford and Somerville on page 11.
Photo courtesy of Google Maps



Message from the Editors

Whoever penned the phrase “What goes up must come down” could have been talking about this edition of *Alma Matters*. Articles in this issue cover everything from the rise and fall of an entire community (“The Life and Death of Boston’s West End,” page 19) to the ascent and decline of a whole political party (“Political Animals,” page 15).

But there are some occasions when the inevitable fall doesn’t happen. In a new section titled “Career Moves” (page 8) we share how GSAS alumni and alumni of the graduate programs in the School of Engineering have risen to new career heights, and show no sign of coming down anytime soon. Of the alumni profiled in this section, one was honored by President Obama, joining Tufts School of Arts and Sciences Professor Peggy Cebe and School of Engineering Professor Karen Panetta (“White House Recognizes Two Tufts Professors,” page 5); another mobilized thousands of people for a unique project that got a whole town lip syncing; and yet another took her talents to Taiwan to share her music with the masses.

We hope to take *Alma Matters* to new heights as well. On January 12, 2012, we held the second meeting of our editorial board. During this gathering, members shared a number of ways the magazine could be enhanced. Some of these improvements included an e-version of the magazine for easy web reading (see the flipbook version at <http://gradstudy.tufts.edu/almamatters>) and having more *Alma Matters*-related content featured on the web (something we are currently working on); feedback from members was also instrumental in creating the “Career Moves” section.

How high can this magazine go? You can answer this question. Since this is *your* magazine, we want to hear from you. Please send us your news for “Career Moves,” forward any story ideas you have, and, above all else, let us know what you think of the magazine—what worked and what missed the mark.

We hope you enjoy reading this issue of *Alma Matters*.

ROBERT BOCHNAK, G07
COEDITOR-IN-CHIEF

JULIA C. KELLER
COEDITOR-IN-CHIEF

Tufts

ALMA MATTERS

VOL. 7 NO. 1 SUMMER/FALL 2012

Editors-in-Chief
Robert Bochnak, G07
Julia C. Keller

Managing Editor
Robert Bochnak

Design Director
Tim Blackburn

Original Design
Tufts Office of Publications

Contributing Writers
Robert Bochnak
Julia C. Keller

Helene Ragovin
Johanna Schlegel

Copyeditor/Proofreader
Johanna Schlegel

Contributing Photographers
Mark Benjamin
Robert Bochnak
Jodi Hilton
Geoffrey Inenaga
Melody Ko
Angus Leung
Kelvin Ma

Anne Madden
Alonso Nichols
Steven Puetzer
C. Robinson
Pete Souza
Joanie Tobin
Evan Vucci

Editorial Board
Heather Conover, G78
Karen English, G73
Ingrid Hoogendoorn, A88, G88
John Kolb, E95, EG99
Catherine Marengi, J76, G77
Jessica Pesce, G08
Liz Preston, J72, G75
Hugh Roome, A74, G74, F77, FG80, A11P,
Tufts Trustee

Director of Communications
School of Arts and Sciences
Anne Fishman

Alma Matters is published twice a year by the Tufts University Graduate School of Arts and Sciences and School of Engineering.

We welcome your comments. Correspondence should be sent to: Robert Bochnak, Editor-in-Chief
Alma Matters
Tufts University
Office of Graduate Studies
Ballou Hall, Medford, MA 02155
Tel: 617.627.5826 Fax: 617.627.3016
Email: robert.bochnak@tufts.edu

We're online. Please check out the magazine at <http://gradstudy.tufts.edu/almamatters>.



Tufts Prints Green
Printed on 25% postconsumer waste recycled paper. Please recycle.

Reading Rainbow 2.0

**Accepting an award from Tufts, LeVar Burton stressed the need for “a firm foundation in media literacy.”
by Johanna Schlegel**

On February 3, 2012, Emmy-winning actor and children’s literacy advocate LeVar Burton received the Eliot-Pearson Award for Excellence in Children’s Media.

The award, sponsored by the School of Arts and Sciences Eliot-Pearson Department of Child Development and the Communications and Media Studies program, is given to organizations, individuals, or companies with a commitment to innovation, diversity, nonviolence, and developmentally appropriate media.

Alma Matters had the opportunity to interview Burton, whose *Reading Rainbow* television series is being “rebooted” in multiple media this year. Here are excerpts from the conversation.



**How would you complete this sentence:
Kids today...?**

They don’t have any appreciation for their elders! [Laughs.] Kids today are living in a remarkable time in terms of the evolution of technology and social structures. Evolution works best when there is a conscious handoff from one generation to another. Sometimes that handoff is consciously violent, and when we’re lucky it is not violent. Technology gives us an opportunity to experience a nonviolent handing off of the baton.

They call these kids “digital natives.” It’s important to teach them the balance—not to allow technology and our fascination with it to blunt our social skills. No amount of cultural evolution is successful if we disconnect ourselves from the essential nature of cooperation.

As we think about children reading, learning social skills, and experiencing media, what kind of conversation should schools and parents be having that they’re not?

The conversation we don’t have often enough begins with the axiom, “All media is educational.” The question is, What are we teaching?

Media literacy has become more important now than ever before. We’ve moved in a very short period from a universe that was dominated by three networks to a universe of limitless choice. It’s overwhelming for me, so it has to be overwhelming for an emergent identity.

Children are ill-equipped at a young age to know the adeptness with which advertising companies are trying to manipulate them. We need to do a much better job of teaching them how to recognize when they’re being manipulated. And why.

How have those principles and sensibilities gone into the design of the new *Reading Rainbow*?

The reboot of *Reading Rainbow* will have at its heart an emphasis on books—books that invite us to explore the real world and our place in it. I’m really excited about being able to continue that conversation with kids about the role literature plays in enhancing every aspect of life.

Would you have predicted that part of the solution might be through entertainment and smart devices?

I’ve always believed in the power of the medium to educate and inspire. I’ve experienced it firsthand in my life. So I get it. I think it’s the most natural thing in the world to want to do.



They call these kids “digital natives.” It’s important to teach them the balance—not to allow technology and our fascination with it to blunt our social skills.



Mastering the Connection Between Engineering and Biology

E

NGINEERS AND BIOLOGISTS HAVE ALWAYS BEEN GREAT PARTNERS, DEVELOPING TECHNOLOGIES THAT affect everything from the health of our bodies to the cleanliness of the environment.

Traditionally, biologists make scientific discoveries and engineers apply those discoveries to create new technologies. However, the professional boundaries are becoming increasingly blurred, with the emergence of a new breed of bioengineers whose training and expertise blend the principles of biology and engineering.

“As one of the newest graduate programs at the School of Engineering, the master in bioengineering program responds directly to this interdisciplinary way of thinking,” said Kyongbum Lee, bioengineering program director and chair and associate professor of the Department of Chemical and Biological Engineering.

The program reaches beyond biomedical or biochemical disciplines, said Lee. “Though many bioengineering technologies have applications in biopharmaceuticals and medical devices, bioengineers can exploit principles from engineering and biology to create new bio-fuels, to mine vast databases, and to create faster and more efficient circuit technology,” said Lee.

The possibilities within the bioengineering field drew current master’s degree student Karyn Mahoney (read

a profile of Mahoney on page 24) to the program. Mahoney is an associate in research and development at Biogen Idec, a company that develops and manufactures biological products for treating neurological disorders.

Six Bioengineering Tracks

- Bioinformatics
- Biomaterials
- Biomechanical Systems and Devices
- Cell and Bioprocess Engineering
- Environmental Biotechnology
- Signals and Systems

Mahoney said a presentation in biomechanics piqued her interest even though she’s primarily concerned with biofuel production and metabolic engineering. “I don’t have a strong background in mechanical engineering, but it was really interesting to hear about recent papers and the latest developments. Even though it’s foreign information to me, it’s exciting to know what advancements are being made.”

The program is particularly well suited to working professionals like Mahoney, said Lee. “A prospective student might be looking to learn a particular bioengineering technique to take back to their R&D group; or maybe someone working in industry wants to explore a new career path.”

Classes are designed so that students who work full-time can earn their degree within two years.

“The program is introducing me to a number of available fields,” said Mahoney. “I don’t think that as a biology undergrad, I got enough exposure to the connections between engineering and biology.”

“I think Tufts really stresses that connection and tries to engage their students in all the different fields,” she said.

For more information, visit <http://engineering.tufts.edu>.



Associate Professor Kyongbum Lee (center), director of the master in bioengineering program, heads up the cell and bioprocess engineering track.

White House Recognizes Two Tufts Professors

IN FALL 2011, PRESIDENT BARACK OBAMA recognized two A&S&E professors for their efforts in mentoring science and engineering students.

Peggy Cebe, professor of physics in the School of Arts and Sciences, and Karen Panetta, professor of electrical and computer engineering in the School of Engineering, were among the recipients of the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. The White House announced the awards on November 15, 2011.

Cebe and Panetta were among nine individuals and eight organizations cited for their work in teaching and guiding students of all ages in science, technology, engineering, and mathematics (STEM) disciplines, particularly students from groups that are traditionally underrepresented in those fields. Tufts was the only institution to have more than one faculty member honored.

“I am thrilled and deeply honored to have been chosen to receive the award,” said Cebe, a researcher in the field of polymer physics, who was recognized for her program that brings deaf and hard-of-hearing students into her lab for summer internships. An article on Cebe’s program was included in the spring 2006 edition of *Alma Matters*.

“I believe that early exposure to research in the STEM disciplines is the key to getting students excited about science and engineering generally,” she said. “Many of the deaf and hard-of-hearing interns have said this was a life-changing experience for them. As a result of this program, several former interns were motivated to pursue advanced degrees and have completed, or are now in, graduate school in STEM-related fields.”

Panetta was honored for promoting interest in engineering among women and underrepresented minorities. In 2000, she founded the highly successful Nerd Girls program, which both furthers students’ research skills through real-world interdisciplinary team



President Barack Obama greets recipients of the 2010 Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring in the Oval Office, December 12, 2011.

projects and offers role models to younger girls, countering the often-negative stereotypes of women engineers and scientists in society.

Girls’ projects have included building a solar race car; developing alternative energy solutions to power an eighteenth-century lighthouse off the coast of Rockport, Massachusetts; and devising a system to enable people with physical disabilities to interact more effectively, assisted by “helper monkeys.” (Learn more about these monkeys on page 23.) Ninety-eight percent of Nerd Girls graduates pursue a graduate degree within three years of receiving their undergraduate degree in engineering.

“It’s great that it’s been recognized that Nerd Girls has been successful at changing the way our nation views women and engineering and science,” said Panetta. “Now they understand that smart girls can do it all.”

A longer version of this article originally appeared in Tufts Now on November 18, 2011.



Professor Peggy Cebe and President Obama



Professor Karen Panetta and President Obama

Humanities Fellows Study Free Verse, Radical Drama

A GSAS drama student studying the radical dramas of Langston Hughes and an English graduate student researching late nineteenth- and early twentieth-century American poetry were the two Center for the Humanities at Tufts (CHAT) fellows for 2011–2012.

As fellows, Catherine Vrtis (drama) and Erin Kappeler (English) each received an \$18,000 stipend and office space in the CHAT house. The pair also presented their work during a CHAT seminar in spring 2012.

“I was able to get valuable feedback on my work and had the opportunity to develop informal discussions in our shared office spaces,” said Kappeler, whose dissertation is *Shaping Free Verse: American Prosody and Poetics from 1880–1915*.

Added Vrtis, whose dissertation is titled, *Black, White, and Red: Langston Hughes and the Radical Left*, “One of the greatest advantages of the fellowship was the collegial atmosphere of the CHAT building and the opportunity I had to get to know the other fellows, including the postdocs and faculty fellows.”

For Kappeler, the fellowship gave her time to focus on her research *and* on landing a job.

“Because I didn’t have any teaching duties—for the first time in four years—I was able to really concentrate and make large strides in completing my Ph.D.,” she said. “Thanks to this fellowship, I was able to complete enough of my dissertation to go out on the job market.”



From left: Erin Kappeler and Catherine Vrtis



Academia or Bust!

The odds of winning the Powerball lottery in Massachusetts are 1 in 195,249,054. There's a 1 percent chance your child will play baseball at the professional level (including the minor leagues). The odds—before the season began—of the Chicago Cubs winning the 2012 World Series were forty to one.

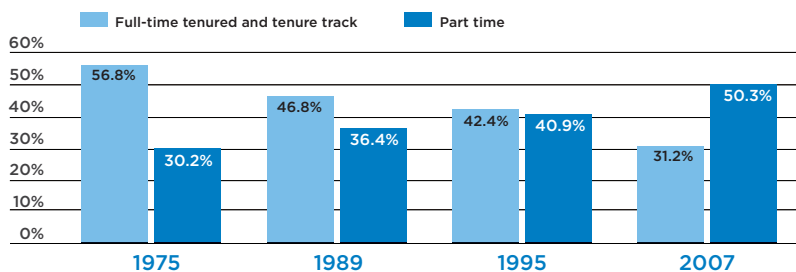
Graduate students interested in becoming tenure-track faculty members are facing some long odds as well. (See *Inside Higher Ed* article, “The Disappearing Tenure-Track Job”; the piece references a ten-year study by the American Federation of Teachers that points to a decline of tenure-track jobs and an increase in nontenure-track positions.)

But not all hope is lost for Tufts GSAS students and students from the School of Engineering's graduate programs who hope to have “professor” on their business cards. In a very competitive academic marketplace, preparation is key. One step GSAS and Engineering have taken to give students a leg up is the “Preparing Future Faculty Workshop.” (Aspiring professors can also participate in the Graduate Institute for Teaching, a program that offers workshops on pedagogy and the chance to coteach a Tufts class with a faculty mentor.) The first workshop, held in November 2011, featured panels led by Tufts faculty members that focused on best practices for networking and applying for academic positions, strategies for interviewing, and approaches to negotiating the first offer. There was also a discussion of nontenure-track options and what to look for in a postdoc appointment.

“Getting students to really think about the future, particularly as they near the end of their Tufts careers, is very important,” said Carl Hagmann, a psychology graduate student. “I have just started my searches, and the workshop was a good starting point and motivator.”

Tenure-Track Faculty Members Yield to Part-Timers

Shown are national totals for all degree-granting institutions for selected years.



SOURCE: U.S. Department of Education, IPEDS Fall Staff Survey. Compiled by the American Association of University Professors. By Ron Coddington

Added Michael Shah, a computer science graduate student, “The workshop was very helpful for a first-year graduate student like me. It provided me with a road map for how to prepare myself for a future in academia.”

Hagmann's and Shah's impressions of the event were almost universal. In a survey of forty-four individuals who attended the workshop, every respondent indicated that it was “helpful to their understanding of what it takes to successfully pursue a career in academia” and 92 percent of respondents found the workshop either “very well done” or “well done.”

Lynne Pepall and Lewis Edgers, dean of GSAS and associate dean of the School of Engineering, respectively, said the workshop met the goals they set for it.

“It's important to serve the growing number of Ph.D. students interested in careers in academia,” said Associate Dean Edgers. “The workshop was another in our efforts to enhance, at the institutional level, the training and mentoring programs for our graduate students.”

Dean Pepall said, “We wanted the workshop to draw on the mentoring expertise of our faculty members, alumni, and administrators, which it did. It was also crucial for students to understand that networking for a job in research and/or academia is very different from how one networks in other fields.”

Welcome to "Career Moves." What follows in this section is a look at where some GSAS alumni and alumni from the graduate programs in the School of Engineering have been and where they are going professionally.

If you have career-related news to share for "Career Moves," email *Alma Matters* managing editor Robert Bochnak at robert.bochnak@tufts.edu.



Todd Pagano

Rochester Institute of Technology (RIT) Associate Professor and Tufts GSAS chemistry alumnus **Todd Pagano, G98, G10** (above, far left), was awarded a 2012 American Chemical Society (ACS) Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences. The award—which is sponsored by the Camille & Henry Dreyfus Foundation and comes with a \$5,000 prize—"recognizes significant accomplishments in the United States by individuals in stimulating students, especially those currently under-represented in the profession, to elect careers in the chemical sciences and engineering." **(Rochester, New York)**

ARO Medical, LLC, the startup company of **Bruce Robie, E82, EG87**, received a silver prize at the Mass Challenge in October 2011. Robie, who has a bachelor of science in mechanical engineering from Tufts and a master of science in engineering design, wrote, "We finished in the top 26 out of 733 entrants and gained free rent in Boston's Innovation District, as well as 5 round-trip tickets on American Airlines!" ARO Medical is a spinal implant company whose mission is to significantly reduce postoperative

back pain in patients undergoing their first back surgery. **(North Andover, Massachusetts)**

Tad Brunye, G07, who holds a Ph.D. in psychology from GSAS, was one of only ninety-four researchers in the United States to receive a 2011 Presidential Early Career Award for Scientists and Engineers. The award—which comes with up to five years of research funding—is the highest honor bestowed by the United States government on science and engineering professionals in the early stages of their independent research careers. **(Natick, Massachusetts)**

Sister Mary Norberta, EG76, retired as CEO of St. Joseph Healthcare in August 2011. Sister Norberta—who graduated from Tufts' School of Engineering with a master of science in civil engineering in 1976—led St. Joseph's for twenty-nine years, and was credited with helping the hospital become the first in Maine to offer laparoscopic surgery and digital mammograms. **(Bangor, Maine)**

Heather Tierney, G11, an American Chemical Society managing editor, participated in the annual ACS On Campus Boston in September 2011. The event provided Tierney with an opportunity to share best practices in publishing and to comment on where the field of academic publishing is heading.

"During the session on 'Basics and Ethics in Publishing,' my fellow editors and I took the audience through the process of publishing an article," said Tierney, who

has a Ph.D. in chemistry from GSAS. "We gave our insights on different stages of the process, from writing up the research, to selecting a journal, to writing a cover or revision letter, and finally to what happens once your article is accepted. I also spoke about copyright and how it pertains to scholarly publications, as well as the transfer of copyright from researchers to publishers when an article is accepted for publication in a journal." **(Boston, Massachusetts)**



Livia Lin

Music alumna **Livia Lin, G11** (above), received the 2011 St. Botolph Club Foundation Emerging Artist award and had one of her compositions, *Illustrious*, chosen for the 29th annual Asian Composers League (ACL) conference and festival, which was held from November 26 to December 3, 2011. **(Taipei, Taiwan)**

Robert Todd, A86, A87, G93, who has a master of fine arts from GSAS, released his latest documentary titled, *Master Plan: Part I of the Alternative Housing Project*. The film brings together housing planners—those who have designed everything from individual homes to public housing developments, from an army base to a prison—with those who reside in these dwellings. Todd also holds a bachelor of fine arts and a bachelor of arts in philosophy from Tufts, having earned the degrees in 1987 and 1986, respectively. **(Boston, Massachusetts)**



Kristen Keilty displays a CarFit program tool.

In October 2011, graduate alumna **Erin Munro, G05, G08**, joined Japan's RIKEN Brain Science Institute's Laboratory for Neural Computation and Adaptation as a postdoctoral fellow. Munro, who earned a master of science and Ph.D. in mathematics from Tufts' GSAS, joined the lab after completing a National Science Foundation (NSF) Postdoctoral Research Fellowship at Boston University. **(Saitama, Japan)**

In September 2011, GSAS occupational therapy (OT) alumni **Kristen Keilty, G01** (above), and **Scott Trudeau, A85, G98**, came together to help make driving safer for older adults. Through a partnership involving the School of Arts and Sciences Department of Occupational Therapy and the Emerson Hospital of Concord, Massachusetts, Keilty brought the CarFit program to the Medford campus. CarFit helps enhance the safety of older drivers through a twelve-point checklist focusing on everything from the best way to adjust mirrors to minimize blind spots to the necessity of proper foot positioning on gas and brake pedals.

"Kristen approached the department seeking student volunteers for a community program she was planning," said Trudeau, a senior lecturer who has a bachelor of science and master of arts in occupational therapy from Tufts. "I was aware of the CarFit program and was happy to provide students with more practical experience assessing and addressing the needs of older drivers."



Jean Foo

To put the CarFit program to use, the students in Trudeau's course on OT practice with older adults needed to become CarFit technicians. Keilty, an occupational therapist at Emerson Hospital, provided the necessary training. **(Medford, Massachusetts)**

A radio program featuring alumna **Jean Foo, G09** (above), debuted in 2011. Titled, "Musical Asia with Jean," the program airs every other Sunday on Boston-based WUNR 1600 AM, and covers topics related to Asian folk music, Asian musicians performing in the United States, and music events of interest to the local Asian community. In September 2011, Foo, who holds a master of arts in music from GSAS, also released her first album, titled *Interspatial*. **(Boston, Massachusetts)**

Biying Zhang, G11, was included in the Alpha Gallery's "New Talent" exhibition in 2011. The annual event features the work of three artists "fresh out of Boston-area art schools." Zhang, a studio art



Biying Zhang's work has been described as "brutally alive."

alumna, was included for work that, as described by Cate McQuaid of *Boston.com*, veers "toward Armageddon. A mattress is the stand-in for a figure, often exposed to the elements. Despite the dark mood, she paints rapturously. 'The Biggest Blue' is electric. The mattress floats in water ruffled by wind. Light bats off the surface, or perhaps rises from the deep—it's not clear whether this is a puddle or a pond, but it doesn't matter. City lights blink in the background. Everything seems brutally alive." **(Boston, Massachusetts)**

Electrical engineering graduate alumnus **Jim Acheson, EG11**, started a new job as an associate at Harness Dickey & Pierce in Washington, D.C., in September 2011. Acheson has a J.D. from the University of New Hampshire School of Law, and his work at the firm ranges from patent law to intellectual property law. **(Washington, D.C.)**

In September 2011, **Todd Shimkus, G96**, helped bring a lip dub to New York state's Saratoga County. The lip dub—which can be viewed at <http://saratogalipdub.com/>—included everyone from swing dancers to golfers, from Santa Claus to runners from a local high school. It was truly a community affair, which required some serious planning.

"We had to get hundreds of organizations to bring thousands of people to us in the middle of the afternoon during our busiest time of the year in costumes of all sorts, shapes, and sizes," said Shimkus, who earned a master of arts in urban and environmental policy (UEP) from GSAS and is president of the Saratoga County Chamber of Commerce. "Once everyone was there, we had to get all the people

staged in the right places. We had to hope they knew the words to the songs, and that after one pass of the production crew the participants could repeat the same actions three more times. We then had to drive the customized Saratoga Lip Dub ATV with a camera man and crew down crowded sidewalks filled with thousands of people and dozens of dogs and horses, making sure not to run anyone over and to film everything on schedule so that the music could be dubbed over properly. We also had to hope and pray that it didn't rain that day, or we would have been in big trouble." **(Saratoga Springs, New York)**

In 2011, child development expert and author **Robyn Silverman, G04**, appeared on television programs including *Anderson*, hosted by Anderson Cooper; *Good Morning America*; and *Today*. On these programs, Silverman, who has a Ph.D. in child development from GSAS, discussed topics including how to fight negative body image and the controversy around child model Thylane Loubry Blondeau. **(Randolph, New Jersey)**

Amy Woodbury, G11, just completed her first year as a tenure-track assistant professor of English at Norwich University.

"I taught introductory courses in world literature and British literature, as well as an upper-level undergraduate seminar on the postwar British novel," said Woodbury, who has a Ph.D. in English from GSAS. "Currently, I'm revising my dissertation, *Technical Difficulties: Modernism and the Machine*, into a book manuscript for publication." **(Northfield, Vermont)**

Meron Langsner, G11, was voted onto the executive board of the Small Theatre Alliance of Boston, and was named an artistic associate of Whistler in the Dark of Everett, Massachusetts. His full-length play *Burning Up the Dictionary* was given a roundtable reading at the Lark Play Development Center in New York, New York, and another play, *Bystander 9/11: A Theatre Piece Concerning the Events of September 11, 2011*, will be included in the Methuen Anthology of Testimonial Drama in spring 2013. Langsner earned a Ph.D. in drama from GSAS. **(Boston, Massachusetts)**



Robyn Silverman, right, on the *Today* show set with former co-anchor and Tufts alumna Meredith Vieira, J75.

A New Fungus Among Us



Tufts researchers found a new species of fungus living in a wasps' nest on a dumpster on campus.

WHILE SOME RESEARCHERS TRAVEL TO THE ENDS OF THE EARTH IN THEIR SEARCH FOR NEW SPECIES, A TEAM including GSAS biology doctoral student Anne Madden discovered a previously unknown fungus right under their proverbial noses, in a wasps' nest near a dumpster on the Medford/Somerville campus.

The Tufts researchers had set out to explore potential new environments for species of bacteria and fungi, the single-cell organisms found worldwide. Scientists have described only about 10 percent of the fungi and bacteria species believed to exist—not a surprise considering that there are thought to be more bacterial species than stars in the sky.

Scientists explore in novel locations both to understand those environments and to ferret out new species that could lead to new sources of chemicals and enzymes for medical or industrial use.

Led by Philip T. Starks, an associate professor of biology in the School of Arts and Sciences, and Madden, the team decided to take a look at wasps' nests, which are often built on houses, trash containers, and other objects made by humans.

"Nests of the invasive species of paper wasps had never been investigated for their microbial community," said Madden. There are many types of locations to study fungus, she notes, and apparently no one had gotten around to the wasps before. "But because researchers know so much about this host wasp, we thought it would be particularly valuable to characterize the microbes of the nest."

Madden took samples from active nests of paper wasps on campus in August 2008, working at night when the insects are less active, and being careful not to breathe on them—like ants, they respond to the carbon dioxide in mammal breath.

Later, the team grew the fungus samples in the lab, which was like planting a garden with a handful of unknown seeds to see what grows. The resulting fungi species were teased apart using genetic sequencing techniques, and one had a unique gene sequence that suggested it had not previously been characterized.

Further laboratory studies confirmed that the scientists had indeed discovered a new species: a fluffy, white, fast-growing fungus that resembles rabbit fur, said Madden. The scientists named it *Mucor nidicola*—noting that *nidicola* translates from Latin to "living in another's nest."

"It's shocking, but also quite exciting that we know more about what microbes live under the sea than we do about those that associate with the insects that actually live in our houses," said Starks.

A longer version of this article originally appeared in Tufts Now on November 15, 2011.

All Citizenship is Local

BY JOHANNA SCHLEGEL

PHOTOS BY ALONSO NICHOLS

Hundreds of GSAS alumni and alumni of the graduate programs offered by the School of Engineering live in Medford or Somerville. Add to their ranks the alumni who work in those cities and the current students and faculty members who are active in the community. Their efforts not only paint a picture of the vibrant neighborhoods surrounding Tufts, but also demonstrate best practices in community organizing and community service that are being used as models elsewhere.

Ask People What They Need

Tufts' Director of Community Relations, Barbara Rubel, G75 (education), describes the prevailing philosophy of community service at Tufts this way: "We're not doing research *on* the community, but *with* the community."

Residents, after all, are well positioned to articulate a community's needs. "Some of the emerging research questions come from the actual lived experience of people in communities right at the doorstep of the university," said Warren Goldstein-Gelb, G99, urban and environmental policy (UEP), executive director of The Welcome Project, a Somerville, Massachusetts-based nonprofit organization, which builds the collective power of Somerville immigrants to participate in and shape community decisions.

"Every member of the community has a story to tell, expertise, and valuable ideas to bring to the table," said UEP graduate student Brad Rawson, an economic development planner with Somerville's Office of Strategic Planning and Community Development.

"[Tufts is] going to bring the rigor of scientific inquiry to whatever question we're trying to solve," said Christine (Christy) McWayne, an associate professor in the School of Arts and Sciences Eliot-Pearson

Department of Child Development and Tufts representative for SomerPromise, a citywide campaign to ensure that every child living in Somerville achieves his or her greatest potential, graduates from high school, and is prepared for college or the work force. "But when we are able to incorporate the expertise of our community colleagues, we bring relevance to the research we conduct; it becomes more relevant nationally."

How, specifically, are residents of Medford and Somerville helping to shape research and partnerships with Tufts?

For one thing, they know when the streets are busiest. "Somerville has a really strange trash pickup schedule, and diesel emits more particles than gasoline. When you're trying to model how many particles you've got, it matters what kind of vehicle emitted them," said civil and environmental engineering doctoral student Allison Patton of the Community Assessment of Freeway Exposure and Health (CAFEH) study, a National Institutes of Health-funded initiative which explores the effects of traffic-related air pollution, especially ultrafine particles, on cardiovascular health in adults.

Residents also know their own diet and exercise habits. The Live Well Project in Somerville was an intervention intended to stave off weight gain among new immigrants. The early focus was on expansion of farmers' markets in Union and Davis Squares; attention to bike paths and bike lanes; and other initiatives. Then, Goldstein-Gelb explained, "We started to interview immigrant families about how they ate, thought about exercise, etc. and there were differences. Someone said, 'I don't understand Americans' fascination with hiking. In my country when we walk, we walk to go someplace.'"

In some families' home countries, the team learned, farmers' markets take the form of wheeled carts—so instead of trying to bring people to the market, the market came to the people. Since the Mystic Mobile Market opened at the Mystic Public Housing Development, said Goldstein-Gelb, four to five times as many people make purchases with food stamps there on a given day as make purchases with food stamps at the Union Square farmers' market.

Anything is possible
when a world-class university
and two vibrant,
urban communities
put their heads together.

Build on What Already Works

In its training materials for community organizers, Tisch College advises leaders to build on what already works. Tisch and several other Tufts entities are concerned with building relationships between the university and the surrounding neighborhoods. Consider.

- Tisch College (Jonathan M. Tisch College of Citizenship and Public Service), including notably its Project PERIS (Partnering for Economic Recovery Impact through Service), which is specifically aimed toward economic needs in Somerville.
- The Office of Community Relations, which works with agencies, organizations, elected officials, and municipal government offices to build strong partnerships between Tufts and its host communities.
- Tufts Community Research Center, or TCRC, which seeks to expand and develop civically engaged research across the university through research partnerships between community-based organizations and faculty members, students, and staff.

Building on what works is also an effective recruitment strategy. When Carey Duques, G06 (UEP), became Medford's energy and environment director in 2010, Medford was already the first Massachusetts city to have a climate action plan—its author was fellow UEP alumna Kim Lundgren, G02—and its first wind turbine had already become operational. "Medford's track record on energy and the environment absolutely attracted me," Duques said.

In turn, two other UEP alumnae, Erin Sweet, G10, and Erin Brandt, G11, are now working with Duques's office. Sweet, a senior analyst with the Cadmus Group of Watertown, completed a feasibility study for the City of Medford on solar PVC in schools. Brandt, an energy planner with the Metropolitan Area Planning Council, is working with the city to update Lundgren's original climate action plan.



"I like being at the cusp between university and community groups," said Warren Goldstein-Gelb of The Welcome Project.

Get to Yes

Taking a grassroots initiative past the pilot phase requires leadership, patience, and savvy over what is often years.

SomerPromise began in 2009 with the support of Somerville Mayor Joseph Curtatone, the Somerville Public Schools, the School of Arts and Sciences Eliot-Pearson Department of Child Development, the Somerville Housing Authority, and many local nonprofit providers.

In August 2009, Moncrieff Cochran, who was then interim director and a visiting professor in the Department of Child Development, moderated a retreat with representatives of the Healy School and the most significant community groups. "It was an exciting kickoff. The energy, excitement, and enthusiasm were well developed in that group," said Christy McWayne.

Introducing McWayne to the many engaged community leaders was one of Cochran's tactics for recruiting her to the School of Arts and Sciences. Another element in the plus column was Mayor Curtatone, who provided more than vocal support—he helped raise money.

To prevent the early enthusiasm from dissipating while the funding was coming through, the agencies held monthly network providers' meetings led by staff of the mayor's office. During those meetings, which went on for about a year and a half, the group crafted the mission for SomerPromise with the notion of a pipeline of services.

As the Board of Aldermen and the mayor's office worked on disbursement in

winter 2011–2012, a request for proposal was developed and the community agencies submitted their proposals through a competitive process. Two groups were funded and an eleven-person advisory board was appointed, with McWayne as its Tufts representative. "It is to the credit of the community for sustaining interest for two years," said McWayne.

Go on a Treasure Hunt

Do what you love and the money will follow, goes the adage. But in all fairness to community organizers who slog tirelessly through feasibility studies, permitting, grant writing, fellowship applications, and presentations, it takes a lot more than love to secure funding to make the world a better place.

With the Mystic Mobile Market, the financing took a "triple bottom line approach where profit isn't the only metric; social missions were also measured and assigned an economic value," said Brad Rawson. One solution that helped fill funding gaps was an EBT (electronic benefit transfer) meter that enabled people to buy fresh fruits and vegetables from vendors at the farmers' market using food benefits.

Sometimes, especially with large infrastructure improvements, a project's feasibility hinges on who owns the resulting assets. "Everyone wants to have renewable energy," said Cary Duques. "But we're tight on budget and need to make sure each project is fiscally responsible." Under the City of Medford's proposed solar panel project, the city would

lease the roof of a school building to a developer and purchase the resulting solar energy under a twenty-year power purchase agreement, or PPA. In contrast, the city owns its wind turbine, which has a shorter pay-back period.

Follow the Leader

Despite differences in culture and demographics, both Medford and Somerville have mayors whose passion and support underlie multiple success stories.

Regarding what he calls “progressive and strong executive leadership” in Somerville, Brad Rawson described Mayor Curtatone as “a remarkable figure for his vision and recognition that good ideas need to be implemented regardless of who came up with them.”

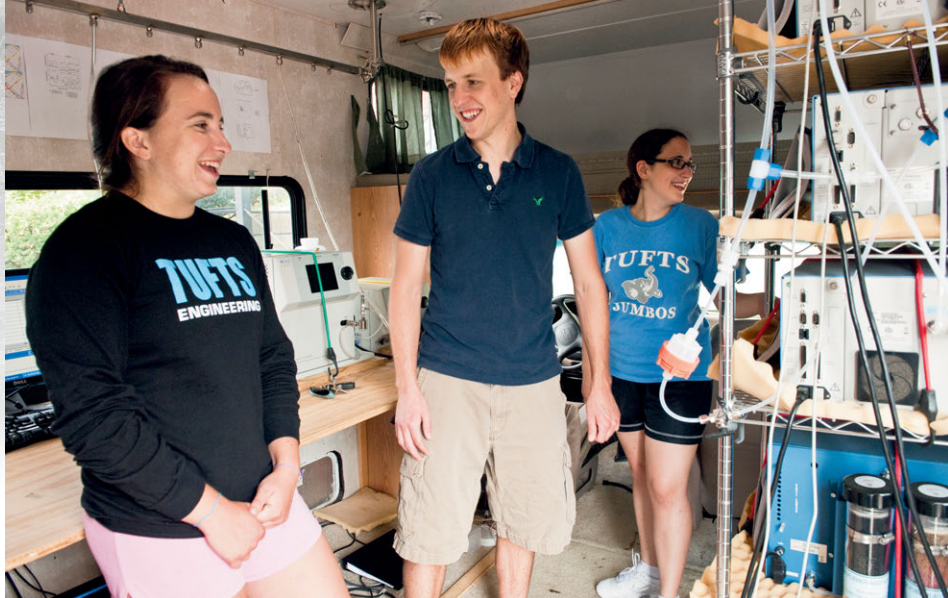
Medford’s mayor, Michael McGlynn, is known for being dedicated to improving energy efficiency and for his open-door policy, according to Duques. Not only does the mayor support her team’s work, but also “he often is the one who suggests ideas” on sustainability, Duques said. She added that municipalities are grateful for assistance, and if a busy public official has an open-door policy it can smooth the way for getting support for a new initiative.

Christy McWayne found plenty of leadership at the grassroots level while SomerPromise was coming together. “In Somerville there’s a complete commitment on the part of folks in the agencies to make this work. I’ve never seen anything like it. People are hanging in there during the economic downturn, when there’s not a lot of money to go around,” she said.

Step Away from the Screen

Most of the work of building an actual community—as opposed to a virtual one—involves pressing the flesh.

“When I started at Tufts thirty-eight years ago, I worked for the very first community relations official, who said, ‘You need to get out into the community if you’re going to work here,’” said Barbara Rubel. “Before I knew it, I was invited to join a board, invited



The CAFEH team gathered data on Somerville’s air pollution in a specially equipped van during six-hour blocks on Wednesdays.

to meetings of the aldermen, and it just built from there.”

Both McWayne and Duques advised prospective community leaders to attend public meetings and network with committee members, many of whom are professionals in the fields in which their committees operate.

“I get out to community meetings, civic events, and general cultural affairs to enhance my connections,” said Rawson.

Coffeehouses and taverns play a vital role in community building, as well. During her senior year, Kathleen Flahive, A04 (peace and justice studies), was working in a flower shop when its owner, Ulla Winkler, asked whether she would be interested in opening an authentic Danish bakery. The two formed a partnership and the Danish Pastry House opened soon after.

“At Tufts we have this stigma of staying on the hill, and people in Medford and Somerville don’t go to the Brown and Brew,” said Flahive. “When Tufts students interact with the community it’s usually in a service role, which is great, but we wanted a place where everyone would be together living their lives.”

Today “the Danish,” as it’s affectionately known, feeds the neighborhood’s spirits and makes significant in-kind donations to local organizations. “You can come by any time of day and see local politicians, the facilities guys, Tufts students and faculty members, and moms with baby carriages,” said Flahive.

“I have been [at “the Danish”] from time to time, for example meeting with A&S&E undergraduate students who want to find out about my position,” said Duques. “It’s a

great place for networking and I have seen some local representatives in there as well,” she said.

Quantify Your Work

Hard data can turn a gut feeling into a policy or even a national model.

“A lot of the weakness in public policy regarding traffic-related air pollution is that so little is known. I hope my results can be used to create better policies and protect public health,” said Allison Patton, whose role in the CAFEH study includes monitoring, data analysis, and modeling.

The folks on the public policy side seem grateful. Rawson said Somerville carries a huge burden of regional transport infrastructure, citing highways that carry large volumes of traffic and isolate neighborhoods, as well as rail lines that cut through with few or no stops. “It’s important to tell this public policy story through real, hard data,” said Rawson.

Rawson’s own background is in geographic information systems (GIS), a relatively young branch of computer science and urban planning. “Five years ago Somerville’s capabilities weren’t where they are today. I’ve been proud to work within this framework of resident-driven, data-driven policy, where you put statistics back into residents’ hands.” Rawson credits the work being done at the Tufts GIS Center, where he was a research assistant as a graduate student.

During a long-range planning exercise for Mayor Curtatone, Rawson experienced the limitations of census data, which he said



Kathleen Flahive of “the Danish”: “I’d like to think we’re making the world a better place one pastry at a time.”

undercounts some constituencies. “There are financial implications of poor data. Every municipality and nonprofit organization in the country is using metrics to demonstrate a need in a competitive environment,” said Rawson. “You’re forced to get beyond the basics and develop data that helps you tell those stories.”

Share Your Findings

The cycle of community building comes full circle as organizers share results when the work comes to fruition.

Often that means teaching, literally. Tufts community leaders are teaching and mentoring in the public schools; teaching nutrition, English language, and literacy; using public schools as laboratories and points of service; even placing wind turbines and solar panels on school buildings, with tie-ins to the vocational and science curricula.

Faculty members from the Schools of Arts and Sciences and of Engineering incorporate community initiatives into graduate courses in urban planning, architecture, engineering, sociology, anthropology, and child development, among other fields.

And community-based research and programs can also serve as a model for other communities.

As an Environmental Protection Agency Science to Achieve Results fellow, Allison Patton participated in a poster session at the International Society of Exposure Science 2011 Conference on Capitol Hill. “It was about how we’re doing monitoring in Somerville, the challenges of doing modeling, and how air pollution is an issue near highways,” she said.

This work can have a broader impact, Patton said, by drawing attention to the potential hazards of very small particles that appear in very large numbers, yet are essentially unregulated. If the research shows an elevated risk of cardiovascular disease, it could support arguments for regulation, Patton said.

SomerPromise has also shared findings at the national level. In 2011, Christy McWayne attended a meeting in Washington, D.C., called, “Intelligence for Social Policy: Integrating Education, Health and Human Services Data to Inform Public Policy,” sponsored by the University of Pennsylvania and funded by the John D. and Catherine T. MacArthur Foundation. In contrast to the disconnection between human services and education across the nation, said McWayne, “This is an initiative to help those domains that affect communities’ lives. Everyone understands the importance of sharing and linking information.”

In summer 2010, just after Medford’s wind turbine became operational, a group from Australia came to the city to meet with public officials, understand how Medford functions, learn about its sustainability programs, and visit the installation at the McGlynn Middle School.

And in 2012, Duques and three colleagues spoke at an event sponsored by the Northeast Sustainable Energy Association. Duques advised solar developers on how to address their proposals to communities so as to get through the procurement process most effectively.

A Benchmark for Other Communities

Conversations with just a few of the exemplars of community building at Tufts depict a virtuous cycle that looks something like this.

- Ask people what they need—a true partnership places full value on the community’s experience and knowledge.
- Build on what already works—it’s much easier to start from an existing success than to begin from scratch, whether it’s a collaboration among agencies or a review of what other municipalities have done.
- Get to yes—patience over the long term can reward even the most multifaceted collaborations.
- Go on a treasure hunt—municipal procurement processes, grants, fellowships, and awards are among the sources of funding for community building.
- Follow the leader—identifying strong public officials and community organizers, the issues about which they are passionate, and their availability to hear new ideas is an essential step for securing their crucial support.
- Step away from the screen—traditional and social media are useful tools for organizing, but arguably the best way to network remains face to face.
- Quantify your work—hard data can turn feelings into funding, politics into policy.
- Share your findings—a cycle that begins with a review of existing best practices ends with sharing new ones. **AM**

Johanna Schlegel is a freelance writer and marketing consultant in greater Boston.



Political Animals



Faculty members, alumni, and students weigh in on the upcoming presidential election, the Tea Party, and the seemingly never-ending gridlock between Democrats and Republicans in Washington, D.C. BY ROBERT BOCHNAK

With the 2012 presidential election a few months away, the rancor between the candidates—evident in negative ads, during debates, and in news coverage—has reached a fever pitch. But cooler and more reasonable heads may yet prevail, and we reached out to some of them through a series of individual interviews held in January 2012 and again in late spring. Our goal: to leave behind the political attacks and general negativity of campaign season to tackle—with help from members of the Tufts community—a sample of the most pressing questions that will be decided this November.

Question 1: Will There Be a Round Two for President Obama?

“I think 2012 has several factors that make it hard to predict, unlike 2008, which was the Democrats’ to lose. Why is it unpredictable? In the GOP’s favor is the still stalled economy. At the same time, some indicators are looking up. And it is not entirely clear the extent to which the voters see Democrats and Obama as responsible for our current economic climate, as opposed to actors and policies that preceded Obama. Obama has, to date, successfully taken Iraq and Osama bin Laden off the table. I used to think that a stable situation in Afghanistan would also be in his favor, but lately it doesn’t look like an issue he would want to campaign on. His only solace there is that Republicans are probably more likely to be sympathetic to the effort in Afghanistan than Democrats; I’m not certain it’s an issue that Obama’s opposition will be able to capitalize on.

The GOP does, however, seem to have enthusiasm in its favor. A lot of Democrats are disappointed with Obama on a variety of fronts, and the enthusiasm gap could be significant.”

— Deborah J. Schildkraut
Associate Professor
Department of Political Science

“President Obama’s chances for reelection are entirely tied to the state of the economy. Its performance over the early winter months was very impressive. But the economy has to continue accelerating forward. If it doesn’t, then I think President Obama is in considerable trouble. He still may win, but it will be a tougher race. If the economy does continue to improve, and unemployment falls below 8 percent, I think President Obama’s chances are good, not excellent, but good.”

— Jeffrey Berry
John Richard Skuse Professor of
Political Science
Department of Political Science



Obama v. McCain

Kennedy v. Nixon



“

I think the president will be reelected, although probably with a smaller margin than in 2008. What I find interesting is that this may be the fourth change or wave election in a row. In wave elections, many freshman challengers are voted in, but a lot of them only survive one or two terms because they are not well-aligned with their districts and at some point politics return to normal. In the house, the weakest of these incumbents from the 2006 and 2008 elections are probably already gone, but there may be a few in swing districts with incumbents who

are vulnerable. However, a lot of the 2010 Tea Party incumbents may also be vulnerable if they are more extreme than their districts. In the senate, the Democrats from the class of 2006 wave are up for reelection and there are a lot of retirements. A few of these retirements, like Senator Olympia Snowe's (R-Maine), may have been prompted by fear of primary challengers.”

— Richard J. Driscoll, P.E.; E01 (civil and environmental engineering, minor in political science); EG03 (civil engineering)

“

The Republican Party has become a fractured, disjointed group unable to present a candidate with broad party support in the general election. Mitt Romney failed to become even the second choice of those who did not support him in the primaries. The Republican candidates' lack of personal and professional respect for each other, and Romney in particular, limits the support Romney might have gotten from their respective bases (and diminishes the ex-candidates' credibility as nominee surrogates). Obama's polling edge as of mid-May should increase as voters learn even more about Romney, the economy continues to recover, and voters begin to 'bet on the incumbent.'”

— Walter Wright, A79 (political science); G80 (political science, master's thesis was on campaign management); attorney and manager, Trinity Law Group LLC; has provided campaign strategy and/or counsel in both Democratic and Republican campaigns at the local, state, and national level

Question 2: Will the Tea Party Be at the Table?



“

In the end, Obama may be reelected because of the Tea Party. The Tea Party catalyzed the campaigns of the most unqualified set of Republican candidates in U.S. presidential history. The Tea Party pursued an 'anyone but Romney' strategy in the Republican primary, damaging Romney's prospects in the general election. Voters outside the Tea Party have heard its negative, if not inaccurate, message that Mitt is the 'Man of M—money, misrepresentation, and Massachusetts.' These Romney negatives will resonate with a large number of voters in the swing states. Obama's strategists will make good use of this Tea Party residue.”

— Walter Wright



Kerry v. G.W. Bush

“

Let's be clear about who the Tea Party is. Tea Party members are simply conservative Republicans, people who always vote Republican. They are not some new independent force. Tea Party identifiers voted for John McCain in 2008, and they'll come out and vote in 2012 for whoever Republicans nominate. The Tea Party is not going to have quite the same impact as it did in 2010 because turnout was down, as it always is in an off year, and Democrats were a little bit more discouraged than usual because of the state of the economy. Many more Democrats will be coming back in 2012, and the Republicans are probably maxed out in terms of how many seats they can gain in the House—so we're not going to see as much impact on the Congressional elections as we did in 2010. But Tea Party members are Republicans and they vote Republican. The balance of power doesn't lie with the Tea Party. It lies with independents and moderates.”

— Jeffrey Berry

“

The Tea Party is clearly influencing the rhetoric of the GOP contenders. The Tea Party's successes in 2010 have made more moderate Republicans in Congress wary of compromise (and unable to compromise) with Democrats. The Tea Party is enthusiastic, which is important, but if they move the GOP candidate too far to the right, the ability of the Republican Party to succeed in the general election will suffer.”

— Deborah J. Schildkraut



Carter v. Reagan



Bentsen v. Quayle

Question 3: Will Scott Brown Keep the “Kennedy Seat?”



There are more Democrats in this state than there are Republicans. It's a very, very Democratic state. Only 11 percent of all Massachusetts voters are registered Republicans, which begs the question: How did Brown get elected in the first place? The reason is that a lot of Democrats stayed home. I don't take anything away from Brown; he ran a brilliant campaign. But in 2012, there will be about 800,000 more voters voting than voted in the special election to replace the late Senator Kennedy. The vast majority of these voters are Democrats. How do we know this? We can look at the map and see where the voting came from, the percentages, for the special election. The vote fell off for Democrats in low-income towns—like Lowell and Lawrence—and in low-income communities of color. If these voters come back, they're not going to vote

for Scott Brown. What Brown does have going for him is that he has a moderate image.”

— Jeffrey Berry



For the most part, I think Scott Brown has been doing all the right things. On key issues, he has been one of a few senators to vote with Democrats and thus he has successfully become a Republican that many Massachusetts voters can like. While moderate Republicans are a dying breed, he's one of the few new ones. There isn't enough conservative backlash in Massachusetts to threaten him from the right. His main worry will be middle and moderate Democrats who have gotten to



Warren v. Brown

know him over the past few years. I think Brown has done a good job of appealing to that segment of the electorate here. He's also been raising a lot of money, and he's going to need it. This will be a close election, and thus an expensive one.”

— Deborah J. Schildkraut

Rock the Vote

The Electoral College isn't the only voting game in town (and it is certainly not a college!).

There are alternative voting methods, some of which are described in *Mathematics of Social Choice: Voting, Compensation, and Division* (Society for Industrial and Applied Mathematics), a book by School of Arts and Sciences Professor of Mathematics Christoph Börgers. Social choice, as a theory, focuses on broad social preferences within a community, as opposed to majority rule.

“Think of a situation where you have options A, B, and C, and A and B are slightly different but similar, whereas C is starkly different from A and B. This scenario happens frequently,” said Börgers, explaining how social choice theory can be applied to voting. “Plurality voting may lead to the adoption of option C, simply because the opponents of C split their votes between A and B. A voting process based on social choice theory should lead to smaller numbers of people who are significantly dissatisfied with election outcomes.”

What would a presidential race look like through the prism of social choice theory? Very different, said Börgers.



“Voters could rank all the candidates,” he said. “The winner would be decided by taking into account not only who voters placed first, but also how voters ranked the other candidates. There's also another method called approval voting, where you check as many candidates as you like and the candidate who gets the most checks wins.”

Börgers's book—which addresses everything from how to select a winner from a field of candidates to how to share a divisible resource like a cake—was born in Math 9: The Mathematics of Social Choice, a course the professor has taught several times.

“I had to learn about social choice theory; I'm by no means an expert in the field,” said Börgers, who researches mathematical neuroscience and, coincidentally, has a younger brother who is an expert in social choice theory. “After teaching the course

for the first time, I contacted the Society for Industrial and Applied Mathematics. To my surprise, they were very interested in publishing a book based on the notes I developed.”

Mathematics of Social Choice is divided into three sections, the first of which deals with voting; the second with compensation problems (which occur when an *indivisible* item must be distributed to one of several people, all of whom are equally entitled to ownership); and the third with fair division (which covers how to share a *divisible* resource among several people).

“There are some famous and standard theorems in the book,” said Börgers. “I discuss and prove Arrow's Theorem,* the most famous voting theorem, and Gibbard-Satterthwaite, which is closely related to Arrow's. So the book is not entirely divorced from the research field of social choice. It's very elementary, from a mathematics perspective, but it's my own version.” **AM**

*Arrow's Theorem, named after Nobel Prize-winning economist Kenneth Arrow, states that a certain set of fairness criteria that all sound reasonable at first sight are actually incompatible with each other.

Question 4: Will Democrats and Republicans Ever Get Along?

“If you are the minority party in Congress you have very little reason to work with the majority if you simply look at everything through a political lens. I believe Congress is more polarized than it has been in the past, but I also think differences are highlighted even more today. It's not as if you didn't have deeply partisan debates 6 years ago, 60 years ago, or 160 years ago; it's just that now debates are taken from the House floor and are on Twitter and Facebook within minutes, if not seconds, and then dissected on cable news and covered in the morning paper. It's an endless loop, and we never get to see what people agree on and how they are trying to work together. Yes, there are certainly deep ideological differences, but I don't think it's impossible to bridge them. I believe there are any number of different reforms, public financing of campaigns, and a variety of others that can be passed to put the focus on what we agree on and not what we disagree on.”

— Benjamin Downing, G08 (urban and environmental policy and planning); Massachusetts State Senator

“People talk about how this is the most partisan Congress in a long time, but the reality is that partisan bickering goes back to the founding of our country. We need to share different ideas, but at a certain point, as we have seen, it becomes harmful to the process. I believe the next president, whoever it is, and Congress need to work toward having a healthier national dialogue, starting with our representatives setting an example for the rest of our nation by being able to cross party lines and work together.”

— Taylor J. Barnard; Tufts political science and philosophy undergrad; president of the Tufts Democrats; president, College Democrats of Massachusetts

“Our political system has become too partisan and driven by greed and self-interest. Gridlock in and of itself is not such a bad thing. The Founding Fathers expected there to be some level of gridlock.”

— Steve Moysey, EG98 (engineering management); G01 (interdisciplinary doctorate); author of *The Road to Balcombe Street: The IRA Reign of Terror in London* (Routledge)

“Democrats and Republicans won't get along, at least not in the near term. The extreme lack of cooperation and accompanying acrimony in Congress reflects a cultural and ideological war over what it means to be an American; a war which progressives must fight. To me, this means that Democrats need to moderate their message to middle America and take the difficult, but necessary position that Republican views and policies characterized as 'conservative' or 'pro-family' are in fact not conservative but radical, extreme, punishing, and, in truth, antifamily. The Democratic Party needs to strategically unleash its most articulate and charismatic thought leaders to forcefully deliver this message to meet its biggest challenge this election year—regaining control of Congress.”

— Walter Wright



G.H.W. Bush v. Perot v. Clinton



Gore v. G.W. Bush



The Life and Death of Boston's West End

by Associate Professor and Chair
Daniel Abramson,
Department of Art and Art History

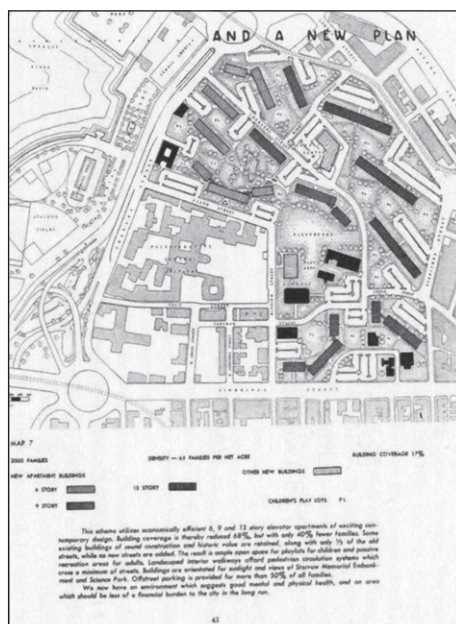
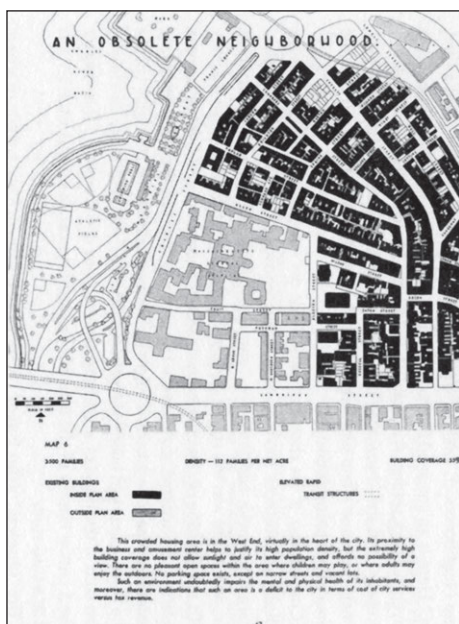
IN 1951, BOSTON'S CITY PLANNING BOARD produced a comprehensive urban renewal scheme detailing the city's woes and imagining a better future. A map of Boston's West End depicts a crooked maze of dense-packed blocks, back alleys, courtyards, and vacant lots. Atop reads the title "An Obsolete Neighborhood" while across lies the pendant image titled "And a New Plan." A decade passed before the West End was infamously obliterated and the "New Plan" realized, but once the neighborhood was singled out as "obsolete," its fate was largely sealed.

Excerpt from a chapter titled, "Boston's West End: Urban Obsolescence in Mid-Twentieth-Century America" and reprinted from Governing by Design: Architecture, Economy, and Politics in the Twentieth Century by Aggregate (<http://www.we-aggregate.org>). Copyright © 2012 University of Pittsburgh Press. Available now in stores and at Amazon.com.

Beneath the 1951 plan, statistics and a caption summarized the argument for the West End's obsolescence. Primary was the congestion of people and buildings: 112 families per net acre; building coverage of 55 percent that "does not allow sunlight and air to enter dwellings, and affords no possibility of a view." These were densities, the *General Plan for Boston* noted, that "exceeded the standards set up by the American Public Health Association's Committee on the Hygiene of Housing." Most frequently cited was the neighborhood's high incidence of tuberculosis, which "ranked worse than 53 of 64 areas in Boston." Ultimately, human distress and physical density exacted costs beyond the district's borders: "There are indications that such an area is a deficit to the city in terms of cost of city services versus tax revenue." From physical congestion to ill health to economic liability, this was the logic of the West End's obsolescence.

Subsequent planning studies of the West End from the mid-1950s filled in this outline. All featured a comprehensive housing survey whose conclusions were sobering. "Nearly 80 percent of all dwelling units in the West End rank as substandard or only marginally standard." Of 631 West End buildings surveyed, 89 percent lacked rear stairs and 80 percent lacked fire escapes; 61 percent had trash strewn about; and 60 percent showed signs of rat infestation and 75 percent other vermin. Of the 3,671 dwelling units surveyed, 63 percent lacked washbasins and 64.8 percent had "larger" or "extreme defects" in their walls, windows, or floors.

The survey that determined the West End's substandard obsolescence was conducted by "trained field inspectors using the American Public Health Association (APHA) technique."



“An Obsolete Neighborhood...and a New Plan”: the graphic that doomed the West End.
Source: A General Plan for Boston: A Preliminary Report (Boston: Boston City Planning Board, 1951), 42–43.

Initially conceived in the early 1940s to help standardize wartime housing, the APHA’s *Appraisal Method for Measuring the Quality of Housing* (four volumes in all, published in 1945 and 1946) was most widely used after enactment of the federal Housing Act of 1949, which required assessment of a city’s existing housing stock before it could be replaced and improved.

The APHA *Appraisal Method for Measuring the Quality of Housing* reflected scientific methods traditionally applied by public health experts to sanitation engineering and infectious diseases. The manual also represented an expansion of public health into broader social concerns.

As a political tool, the APHA manual made the “determination of basic needs... a matter of quantitative measure” so that “it becomes possible to put all the housing cards on the table, where every group concerned may consider dispassionately its proper role in the reconstruction task.” The APHA method thus functioned as a kind of urban triage, officials and politicians using it to diagnose urban ills and prioritize areas for redevelopment surgery. The method’s political effectiveness rested on its scientism and apparent objectivity, which could be used to transcend the usual class and ethnic divisions of American big-city politics seen as stymieing reform and social improvement.

The APHA’s *Basic Principles* reflected long-standing views on the physical environment’s determination of physical and social health, supplemented by a modern emphasis on the individual’s mental health and happiness. Urban obsolescence now included a neighborhood fabric’s failure to support individual self-esteem as well as moral and creative self-actualization, in terms developed at this time by the psychologist Abraham Maslow’s “hierarchy of human needs.”

Modern, too, was the APHA housing study’s organizational structure and institutional framework. Analysis of urban obsolescence exemplified the “big research” approach of the interwar years, bringing together government, academia, professional organizations, and foundations in a “totalist view of American life as an objectified, quantified mechanism.”

The term “obsolescence” was first applied by planners to urban neighborhoods and cities in the 1930s as a near-synonym for “blighted” and “decadent.” In the dark “soul-searching” years of the Great Depression, “we are becoming blight-conscious as a people,” observed the tax expert Mabel Walker in 1938, aware of the harm done to citizens and cities by substandard living conditions. Boston’s West End exemplified obsolescence’s symptoms: overcrowding, narrow streets, heavy traffic, mixed commercial and

residential uses; inadequate sunlight, fresh air, and open spaces; dwellings advanced in age and deficient in public health standards of sanitation and heating; and proximity to central business districts that obsolescent areas threatened to degrade economically. Indeed, economic liabilities were the special mark of obsolescent areas measured by declining rents, property values, and tax receipts. These were factors distinct from and less tangible than the visible decay of a slum still profitable to its landlords.

The planners’ distinction between slums and obsolescent neighborhoods allowed policy makers to draw boundaries between urban areas more and less salvageable, or in transition from one state to another, as well as determine degrees of risk for affected districts and the surrounding city.

The Logic of Obsolescence

The fundamental economism of urban obsolescence derived logically from the first application of the term to the built environment in the 1910s and 1920s. Owners of downtown American office buildings puzzled over the unpredictable financial demise and early demolition of properties built only a few decades earlier, like the Gillender Building on Wall Street reduced to rubble in 1910 after just fourteen years of life. Economists and engineers began talking about buildings’ “financial decay,” adopting late-nineteenth-century industrial accountancy’s terms for measuring the “service life” of capital assets like telephone poles, streetcar wheels, and railway stations. Obsolescence, a factor distinct from physical wear-and-tear or depreciation, was understood as a loss of value and serviceability caused by competing new technology—for example, diesel engines obsolescing steam.

The federal corporate income tax, introduced in 1916, featured “a reasonable allowance for obsolescence,” but without specifying a level of deduction. From this point on, the American corporate real estate industry took a vital interest in maximizing allowances for depreciation and obsolescence. Less building “life” in the eyes of the law would mean more profit for owners.

The “obsolete” West End of 1950 was an L-shaped, forty-eight-acre area in the northwest part of Boston close by the downtown business and civic district. Settled in the early nineteenth century, the West End for a hundred years had been a district primarily of first- and second-generation immigrants. In 1950 working-class Italians represented a plurality of the West End’s 12,000 inhabitants, living alongside substantial Jewish and Polish communities, plus smaller numbers of Greeks, Albanians, Ukrainians, African Americans, students, artists, and hospital workers who had settled there for its low rents and central city location. Fragmented by ethnicity and income—the poorest concentrated in the dense center—the West End was never socially a “cohesive neighborhood,” although it could look so because of its dominant working-class culture, architectural uniformity, and defined boundaries.

In 1931 the building owners’ efforts to establish the truth of short building lifespans bore fruit, when the Bureau of Internal Revenue produced depreciation tables that factored in obsolescence, defining commercial building lives at around a mere thirty years. The political achievement had been to turn extreme cases of obsolescence in Chicago’s Loop district into the standards of the U.S. tax code, producing windfall profits for building owners across the country.

The more general consequence was to establish in public consciousness the idea of building obsolescence as an inevitable truth of the modern built environment. By the 1930s the term “obsolescence” had become ubiquitous in the fields of real estate, finance, and city planning. When planning and public health professionals began defining urban obsolescence in the 1930s, they reflected this worldview and extended its particular economic, not to say capitalist, outlook to residential neighborhoods and whole cities.

By the 1940s obsolescence had become a paradigm, a way of conceptualizing change in the built environment that presumed and quantified dramatic losses of value over shortened periods of time. What was in effect a proposition about how the built environment evolved—that the measurably better and new made expendable the



Green Street, West End, Boston, 1959

insufficient old—came to be accepted as a reasoned if not natural fact. From an idea of single building obsolescence, the concept had been expanded by planners and other professionals into a related notion of urban obsolescence. And although there were differences between the commercial and urban applications of obsolescence—the former avowedly economic and focused on individual structures, the latter more generally social and encompassing whole environments—both commercial and urban obsolescence shared similar beliefs in quantifiable performance and the expendability of rapidly outmoded objects.

The logic of obsolescence, applied to the built environment, represented in effect a clearance technique: a definitive devaluation of a building or neighborhood, a foreclosure of adaptability; a relegation to the past and emptying of relevance for the present and future; imminent replacement by the new and improved.

Obsolescence is thus of course also a politics. Implicitly it embodies an asymmetry of power, between those who make the designation of obsolete and those who must live under it. The politics of obsolescence allows those with power to deem dysfunctional, valueless, and out-of-time the habits and habitations of those without power.

In fact, the West End’s demise was as much political as scientific. The neighborhood was not statistically the city’s worst. Other neighborhoods, like the North End, had even worse vacancy rates, land values, building conditions, and population densities than did the West End. The 1951 *General*

Plan for Boston openly acknowledged the elite Back Bay’s similar densities of people and aged buildings. Yet the Back Bay was officially deemed “old but not obsolete,” its “preservation of permanent values”—that is, its immunity to obsolescence—depending on the Back Bay’s apparently greater adaptability to change. In truth, the West End lacked the Back Bay’s cultural cachet and the North End’s political clout as the center of Boston’s Italian American community. Moreover, the West End’s planned gentrification conformed to the agendas of downtown merchants anxious for nearby middle-class shoppers, of adjacent Massachusetts General Hospital desirous of higher-class neighbors, and of real estate developers covetous of the West End’s Charles River views. Against this array of factors, West Enders were powerless.

An Unopposable Consensus

From the point of view of city planners, the obsolescence paradigm served their profession’s particular purposes, too. By the 1930s planners had abandoned City Beautiful-style fixed solutions for urban centers and came instead to favor techniques of quantitative analysis and notions of “dynamic equilibrium” at the metropolitan scale. The obsolescence paradigm, in its economism and acknowledgment of suburban context and competition, answered to this shift in planning theory, which took the perpetual change of obsolescence to be the new normal urban condition under

capitalism. For their part public health professionals varnished the paradigm's social component, with their commitment to human well-being, and provided a practicable scientific application with the APHA housing appraisal manual. City planners and public health experts alike used the idea of obsolescence to expand their disciplines into the social sciences, thus enhancing their professions' political relevance by offering policy makers a framework for managing the plight of America's cities. Moreover, the paradigm's long-term, collaborative, multidisciplinary research efforts—exemplified by the APHA's housing study—depended on financial and institutional support from universities, government, and charitable foundations, thus marshaling elite American civil society within the consensus for obsolescence.

The paradigm of obsolescence also possessed great cultural purchase in America's consumer economy, charmed by notions of "planned obsolescence" and expendable commodities. Since the late 1920s, marketers had enjoined Americans to accept "progressive obsolescence... a readiness to 'scrap' or lay aside an article before its natural life or usefulness is completed, in order to make way for the newer and better thing." During the Depression government-sponsored "planned obsolescence" of the built environment was proposed as an economic catalyst: after twenty-five to thirty years a "building can be destroyed and a new one erected, with resultant stimulus to employment."

Finally, there were the obsolescence paradigm's racial and class dimensions, which underwrote its ideological effectiveness. Planners adopted real estate appraisers' bias that ethnic and racial heterogeneity signaled diminishing economic value, or obsolescence. "The area slipped down another notch and today is inhabited by some eighteen different nationalities," wrote George Herrold about a Saint Paul, Minnesota neighborhood. The Federal Housing Administration's 1938 *Underwriting Manual* listed "lower class occupancy, and inharmonious racial groups" as "adverse influences" in a neighborhood's Economic Background Rating, to be used in disqualifying "obsolete" neighborhoods for mortgage guarantees. In terms of class, an obsolete neighborhood's

HISTORY LESSON

*"The prescient historian Alexis de Tocqueville observed the zeal for planned obsolescence in America when he wrote, in his 1840 book, **Democracy in America**, 'I accost an American sailor, and I inquire why the ships of his country are built so as to last but for a short time; he answers without hesitation that the art of navigation is every day making such rapid progress, that the finest vessel would become almost useless if it lasted beyond a certain number of years.'*

*"Professor Abramson shows how this zeal came to transform the field of urban planning and American cities in the twentieth century. **Tearing down and building anew has a Keynesian flavor, a kind of economic stimulus package, and not surprisingly it took hold in the 1930s and then took off and flourished in the postwar era. Today, the idea of tearing down buildings seems wasteful, nonsustainable, and far from progressive. Seeing how our values and valuation of the environment have changed through the lens of urban planning is interesting and provocative.**"*

— Lynne Pepall

Dean, Graduate School of Arts and Sciences;
Professor, Department of Economics,
School of Arts and Sciences

congestion offended middle-class evaluators' beliefs about order, privacy, and safety, contrary to working-class residents' own experience. In the West End, children "preferred to play on the streets—where the excitement and action they valued was available," noted sociologist Herbert Gans who studied the neighborhood's social networks before their erasure. "Even the sense of adjacent human beings carried by noise and smells," wrote other West End researchers, "provides a sense of comfort." Precisely those elements of crowded public life and adaptation to physical density that best supported the localized social identity of a working-class neighborhood—the close congestion of streets and hallways, variety stores and taverns, children playing in the roads, women leaning out of windows, men on the street corners, families on their stoops—these were what middle-class evaluators, wedded to social ideals of individualism and mobility, found to be obsolete in public health surveys.

The 1951 designation of Boston's West End as obsolete thus represented a complex ideological construction, conjoining middle-class values and consumerism with state policy, capitalist methodologies, and multidisciplinary professional expertise. In midcentury America obsolescence's allure was overwhelming: simple in its dualism, a reflection of material abundance, progressive in its liberation from the past, promising a better future modeled on the spacious, car-centered suburban competitor that had apparently already bested the inner city economically and demographically. In Boston, as elsewhere, the consensus for obsolescence was seemingly unopposable. Even social service providers "approved of the redevelopment," as did Catholic churchmen, who "described the area as a slum [and] looked forward to the redevelopment of the West End, and hoped for a more middle-class group of parishioners."

In the spring [of 1958] the City of Boston seized the whole of the West End by eminent domain. Rent was now due to the city that owned all buildings, residents began leaving, and those who remained received official notices to vacate their homes. By 1962 the demolition of nearly the entire West End was completed. Some two thousand families were displaced, scattered throughout the metropolitan area. Nine hundred buildings were demolished, leaving behind a flattened wasteland of dirt, brick, and ghostly streets. Out of this rose Charles River Park, a modernist complex of concrete and brick townhouses and towers in a park setting, loosely adapted from the 1951 "new plan" and renting mostly at market rates. Against this catastrophe the West Enders had been powerless, overwhelmed by the weight of professional expertise, institutional support, governmental policy, and bureaucratic technique. **AM**

*Daniel Abramson is associate professor and chair of the School of Arts and Sciences Department of Art and Art History. He is author of *Building the Bank of England: Money, Architecture, Society, 1694–1942* and *Skyscraper Rivals: The AIG Building and the Architecture of Wall Street*.*

Citations were omitted from this excerpt for use in Alma Matters.

Animal Instincts

GSAS students and alumni are advancing modern navigation, using animals for therapeutic purposes, and doing much more with a little help from their often small and furry friends. **by Robert Bochnak**

Typical challenges for most of us at work:
Meeting deadlines. Managing multiple projects.
Keeping the inbox from overflowing.

Typical work challenge for graduate alumnus
Huai-Ti Lin: pigeoncams.

"I'm researching how birds like pigeons fly," said Lin, who earned a Ph.D. in biology from GSAS in 2011 and is now a postdoctoral fellow at Harvard University's Concord Field Station.

"Flying pigeons through different obstacle courses is the fun part; the challenge comes when I have to mount the wireless cameras on their heads. Both the skin on a pigeon's head, which is loose, and the feathers each one has make it difficult to put on the cameras."

Huai-Ti Lin has some company. The following GSAS students and alumni have either made animals part of their research or have worked with them professionally.



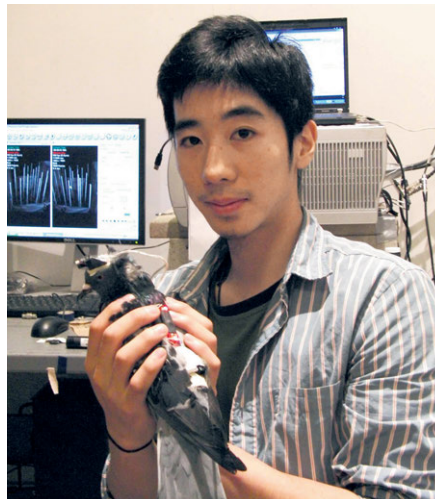
LESLIE INENAGA
(graduate student, occupational therapy)

ANIMAL: Dogs

ROLE-PLAYING: During the fall 2011 semester, Inenaga completed an independent study in animal-assisted therapy (AAT); her objective was to see what role AAT plays in the field of occupational therapy. As part of this work, she shadowed volunteers at the Massachusetts-based nonprofit Caring Canines Visiting Therapy Dogs, Inc.

THE BEST MEDICINE: "At one children's hospital, a little girl with cancer told us how much she looked forward to visits from the dogs, that just seeing the dogs made her feel better," said Inenaga.

SPREADING THE WORD: Inenaga, with help from occupational therapy Professor Sharan Schwartzberg, hopes to publish an article on her independent study in a future issue of *OT Practice* magazine, the publication of the American Occupational Therapy Association.

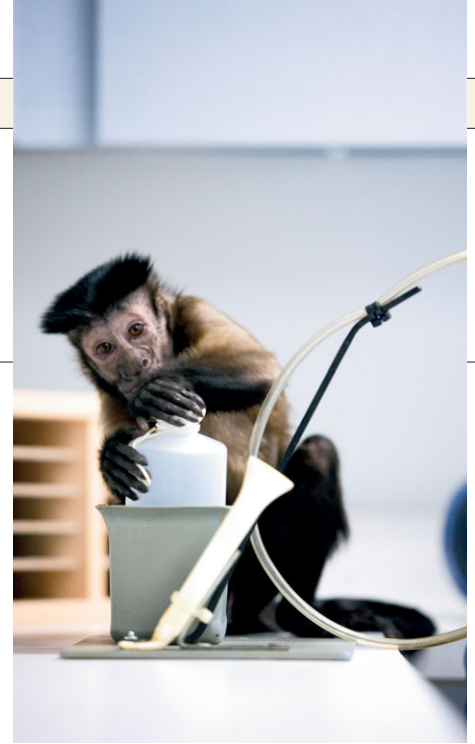


HUAI-TI LIN, G11
(Ph.D., biology); postdoctoral fellow,
Harvard University's Concord Field Station

ANIMAL: Pigeons

YOU CAN GET THERE FROM HERE: Lin hopes to develop alternative navigation strategies by studying how birds plan their flight trajectories as they speed through unknown, cluttered environments.

NOT YOUR AVERAGE OBSTACLE COURSE: Lin has his pigeons fly through an artificial pole forest, tracking their flight paths as they go. "We then simulate virtual flights independently based on different navigation models and some initial conditions from our experiments; comparing the simulated and experimental data allows us to evaluate the significance of different types of visual information and how birds fly through crowded environments," he said.



JILL ROCCA, G06
(M.S., O.T.D., occupational therapy);
former staff occupational therapist,
Helping Hands: Monkey Helpers for
the Disabled; recruitment coordinator
and part-time lecturer, Tufts School
of Arts and Sciences Department of
Occupational Therapy

ANIMAL: Capuchin monkeys

ALL HANDS ON DECK: As an occupational therapist at Helping Hands, Rocca was in charge of the application process for potential recipients (collecting and reviewing applications, contacting and screening applicants); was the main contact with monkey recipients preplacement; worked with recipients to help modify their home environments; handled client outreach (contacting rehabilitation centers, hospitals, and other programs); and delivered presentations on the services offered by the nonprofit. Rocca also lent a hand, as needed, in areas outside of occupational therapy, such as fundraising and event management.

MONKEYS DO THE DARNDDEST THINGS: Using positive reinforcement, Helping Hands monkeys are trained to, among other things, turn a light switch on and off; press buttons (such as those on a computer); pick up dropped objects; retrieve food from a refrigerator; and scratch an itch.

WHOLE LOTTA LOVE: "Living with a monkey is like having a cross between a very loyal dog and a small child. Although they can test your patience at times, the monkeys provide continuous love and companionship," said Rocca.



Karyn Mahoney at Machu Picchu:
“It doesn’t even seem like you’re
on Earth.”

GRADUATE STUDENT, BIOENGINEERING

Karyn Mahoney

CONCENTRATION: Cell and bioprocess engineering

BIO BACKGROUND: I always liked the ecology aspect of biology, but I focused on biochemistry because it just seemed there was so much you could do on the molecular level to create a positive environmental impact—even if it wasn’t what I classically thought of as environmental studies.

CLASS CATALYST: When I studied metabolic engineering, we talked about all the current bioengineering research that was being done. The course introduced me to different fields in metabolic engineering about which I probably wouldn’t have been made aware.

BEST BOOK: *Hot, Flat, and Crowded* by Thomas Friedman. I was thinking about the direction in which our planet is headed, and the pains people are taking to try to make it more sustainable. I read Friedman’s book at the same time I was in a class on metabolic engineering with Associate Professor Kyongbum Lee, and it just seemed to click—the potential we have to create sustainable fuels; to create sustainable energy.

HOBBIES: Cooking and traveling



COOLEST TRIP: One of the best moments of my life was going to Machu Picchu. The beauty and solitude I felt there was unlike anything I’ve experienced before, and it forced me to stop and reflect.

DREAM JOB(S): Research and development biofuels engineer

MOST INTERESTING LECTURE: Bioethics. You think about all these great advancements in bioengineering, and yes, they’re really exciting, but what are the ramifications?

Highest Office in Washington

This past fall, just for a while, tourists strolling on the National Mall were awed not so much by the Washington Monument itself as by the antlike figures rappelling down its sides: engineers checking for damage from the earthquake that hit the D.C. area in August 2011. Among those intrepid climbers was a woman in a red jacket, Emma Cardini, E01 (civil engineering), EG09 (civil and environmental engineering), who works for the Illinois engineering firm that carried out the inspection. The view, in the moments when she pried her eyes away from the face of the obelisk, was “pretty cool,” she said, admitting it was bizarre to see planes flying so near. “That is an unnerving experience—when you look out at the airport, and the planes are under you.”



TUFTS POLS ON THE POLLS

Crossing the aisles and doubting the Teas. See page 15.