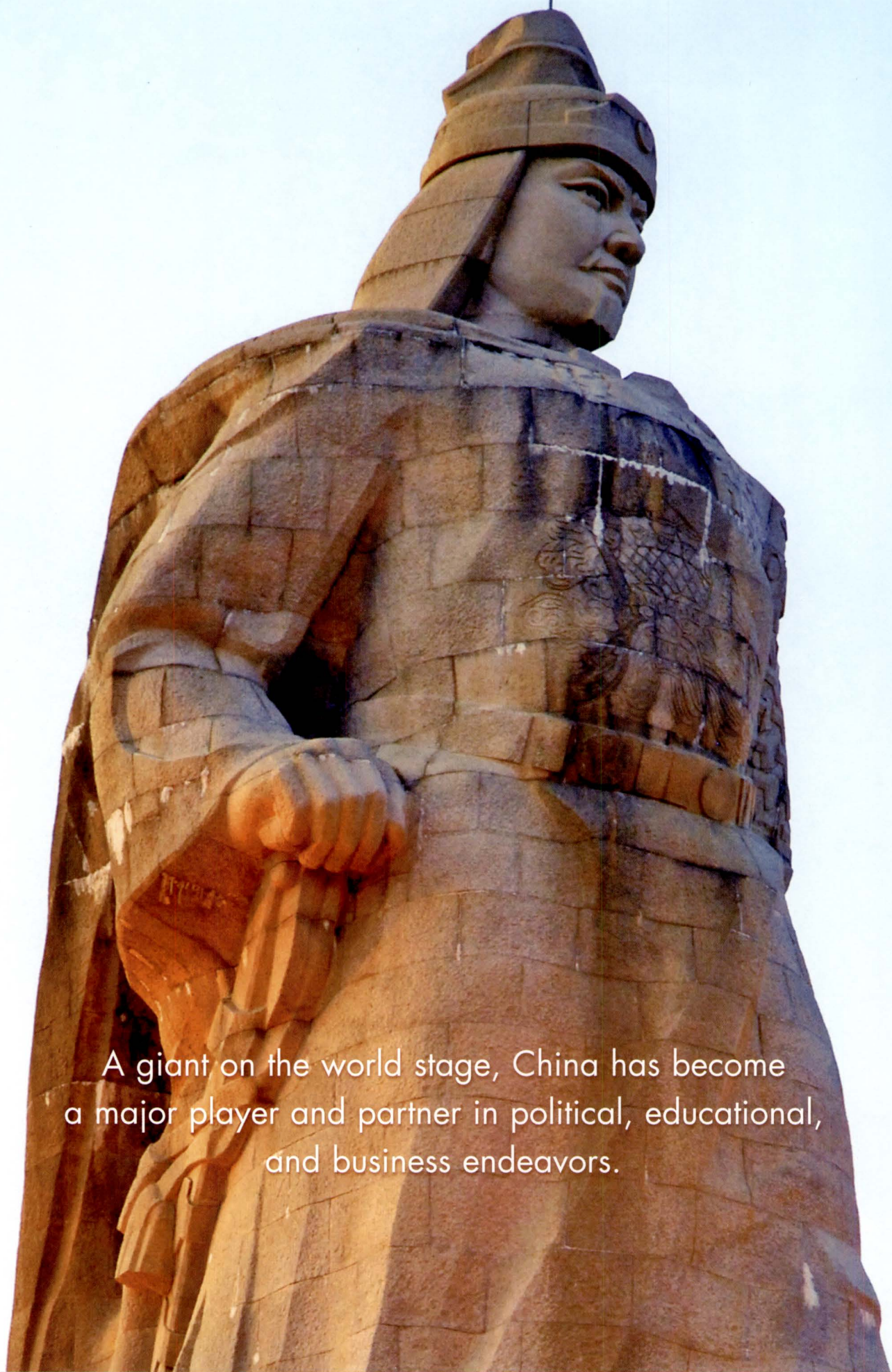


# WPI transformations

SPRING 2011

A JOURNAL OF PEOPLE AND CHANGE





A giant on the world stage, China has become a major player and partner in political, educational, and business endeavors.

# contents

## DEPARTMENTS

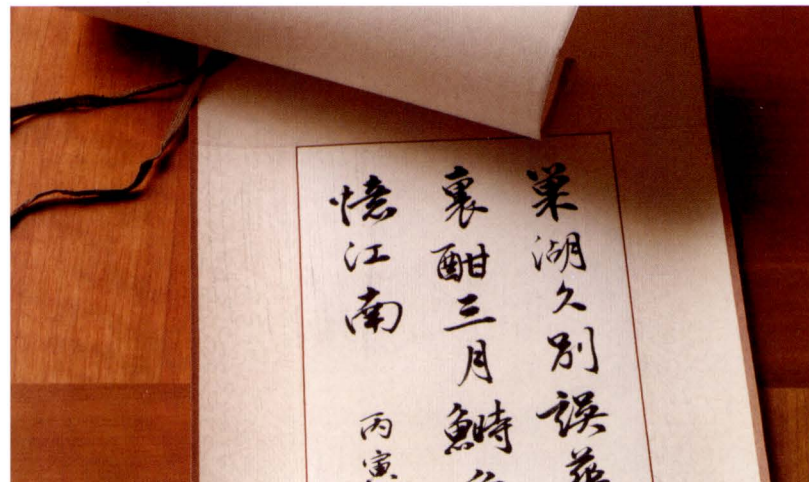
- 2 Starting Point**
- 3 Letters**
- 4 Internationalism at WPI**  
A message from President Berkey.
- 5 Campus Buzz**  
Research heats up the streets; students go to Guatemala; women's place ranked high at WPI.
- 8 Inside WPI**  
A first for WPI: three new academic deans arrived this year to help lead the campus forward.
- 10 Explorations**  
Learn to play the guitar like a rock star, courtesy of student-designed software.
- 34 Class Notes**
- 46 Obituaries**
- 52 Time Capsule**  
There's a new kid in town.

Opposite: The statue of Zheng Chenggong, perched on Gulangyu Island off China's southeast coast, represents China's claim to Taiwan (see "The Zelig of Taiwan," page 27).

Cover: Photograph by Patrick O'Connor.

## FEATURES

- 12 Collaborations and Community**  
A Q&A with President Berkey on WPI's relationship with China.
- 16 China's Building Boom**  
Explosive growth in China's built environment is causing a concomitant rise in fire safety considerations.
- 20 Made in China**  
Alumni who have worked in China talk about the promise, the trade-offs, and the future.
- 22 Looking Back to Look Forward**  
Historian Jennifer Rudolph's research demonstrates that Chinese modernity continues to baffle those who view it solely in Western terms.
- 28 Uncensored**  
China is opening up to the electronic age, but its own electronic age. Google, Facebook, and other Western networking sites are banned.
- 30 Culture Shock**  
Chinese students on the WPI campus talk about the joys and the confusions of trying to understand and live an American life.



"'Begin at the beginning,' the King said gravely 'and go on till you come to the end; then stop.'"

—Lewis Carroll, *Alice in Wonderland*

**In my mind**, there are scientists and engineers, teachers, doctors, and humanitarians. There are inventors and entrepreneurs. (There are *many*, many inventors and entrepreneurs.) There are CEOs, presidents, and vice presidents. There are environmentalists. There are gamers. An architect, a pastor, a city councilor, and an alpaca farmer.

Actually, there are precisely two alpaca farmers.

Who, you may ask, are these people? They are WPI. More specifically, they are some of the stories that have occupied the pages of this magazine over the last five and a half years. And they are the people I think about more often than you'd imagine.

Since 2005, when I became editor of *Transformations*, WPI alumni have continued to surprise and impress me. And, in fact, my hope for every issue of this magazine has been that these stories would surprise and impress you, too. In all of these stories and all of these alumni, I continue to be struck by how fabulous and necessary it is that a university rooted in science and engineering would produce such a wide diversity of alumni whose work is both interesting and important.

Certainly this magazine, which centers on China, is no different. You have only to look through these pages to see the wide variety of WPI alumni—and faculty and students—whose work and interests are linked to the growing superpower.

By the time this issue of *Transformations* lands in your mailbox, I will have left WPI for another opportunity at another university. It is a bittersweet moment, as I have so enjoyed, perhaps more than I can express here, being editor of this magazine since 2005. In the issues since then, on this very page, I have regaled stories of my own family—my husband, my parents, my late Bubbe, and my now-86-year-old Zaide. And so in keeping with that same unofficial tradition, I'll share one of my favorite stories about my sister, Lany.

Several years ago, Lany, then in her 20s, had the opportunity to meet Al Gore at a book signing for *An Inconvenient Truth*. She turned to him and, without the least bit of irony or sarcasm, instructed the former vice president: "Keep on keepin' on, Sir."

To WPI, I wish you the same.

As always, thanks for reading.

Charna Mamlok Westervelt, *Editor*

**WPI** transformations  
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### There Was Only One "van A"

With great sadness, I read in *Transformations* [Summer 2010] of the passing of mathematics professor John van Alstyne. In short, he was the best and the kindest professor who crossed my path.

I remember taking a calculus class from him and earning a grade of B. At face value that was not unusual, as I earned a B in each of four required base mathematics courses. Having been essentially a straight-A student in high school, I found college harder and my mathematics assignments and examinations to consistently be either a C or B—maybe an occasional A. But the grade of B I earned from Professor John van Alstyne was my most gratifying result in my entire time at WPI in any course.

Professor John van Alstyne had a uniquely strong, positive approach to motivating each and every student in his classroom. In his class he would demonstrate some of the homework problems on the board, all from his head, on the spot. Incredibly gifted man. More important, with each problem, he gave a physical sense, e.g., when the problem asked one to plot a given equation, he gave a meaning. In one case he said, "Imagine holding a handkerchief at each corner, then pull two opposite corners upward, and the other two downward." That is how I learned about the hyperbolic paraboloid! Decades later, I used the same analogy in teaching Theory of Shell Structures to my graduate students.

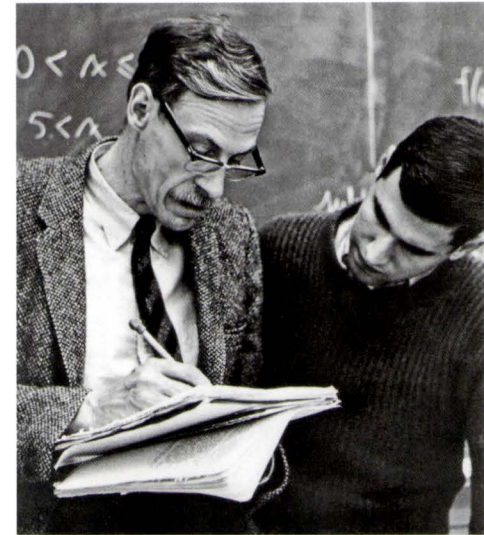
When we took written examinations in his class, Professor van Alstyne would always say, "When the bell rings, if you have no class coming just keep working and pass it in when you are satisfied you are done. If you do have a class, give me your exam papers and return to my office when your

next class is over, and then continue working on it, until you are satisfied you are done." I cannot imagine anyone cruel enough to have taken advantage of his usual offer. Cheat yourself, dishonor him—never.

Before the final examination for his course, I visited Professor van Alstyne and explained my plight—always working hard, very hard; always getting a B in math. I asked for advice on how to prepare for his final exam. His advice: "Don't put so much stress on yourself. It's just part of life. It's better to relax and be rested. Instead, put aside your book and notes and just go see a movie the night before the examination." So I did. Result? I earned a final exam grade of a high A. A grade of a high A from Professor van Alstyne—from "van A"!!!

Given a present-day perspective, I sense that a professor who gave extra time on an exam might be chastised. Some students might actually use the offer to cheat. Perhaps his advising this student to skip studying for the final exam and take in a movie would be seen as inappropriate by some colleagues. I can only say, that is why there was only one "van A." The lifelong lesson is to work earnestly, "until you are satisfied you are done." That has been the essence of my career as a professor and researcher.

I am sad he is gone, but very thankful to have learned so much from him. I had many very good teachers and several very fine teachers at WPI. Professor John van Alstyne stands out as the very, very finest of them all.



**Richard M. Gutkowski**, PhD, PE

Emeritus Professor

Dept. of Civil and Environmental Engineering

Colorado State University

## A message from President Berkey

### Internationalism at WPI

Both WPI's enrollment of international students and our activities abroad are increasing rapidly, so it is fitting this issue of *Transformations* follows an international theme. There is a special focus on China, now the world's second-largest economy, and the setting for a recent visit by a delegation from WPI that Cathy and I had the pleasure of leading. My interview with *Transformations* about this trip is included in this issue.

More than half of our undergraduates complete IQP, MQP, or humanities and arts projects at one or more of our 26 international project centers. While the project teams working in the African centers in Namibia and Cape Town are frequent winners of the President's IQP Awards, there is a special characteristic of the teams working in Thailand and in China. There, our WPI students are paired on the project teams with students from the host countries. I cannot imagine a more intensely rewarding intercultural experience than working shoulder to shoulder with global teammates on hard, important problems in the developing world.

Elsewhere, the Venice project center has been operating for more than a quarter century, and several of the project themes, such as the impact of modernization on the canals and the preservation of public art, are well known among the Venetians as passionate, ongoing concerns of WPI students. Indeed, the Global Perspective Program has brought an exciting and important dimension to the *WPI Plan* that even its founders could not have imagined.

Here on campus our international students add a rich dimension of diversity to campus life, both to our academic programs and in the leadership and cultural variety in co-curricular organizations and activities. They help WPI see itself from a broadly international perspective. At the same time they embrace WPI's traditions and values, and go on to carry our name and reputation proudly throughout the world as WPI alumni.

I cannot imagine a more intensely rewarding intercultural experience than working shoulder to shoulder with global teammates on hard, important problems in the developing world.

Recently I had the pleasure of hosting a group of international students for lunch. We had a wonderful conversation about their experiences in coming to know about WPI, deciding to enroll, and then joining our community. It requires no small amount of courage to leave family and friends behind for study in a foreign university, and the conversation helped me understand certain critical aspects of these students' experiences.

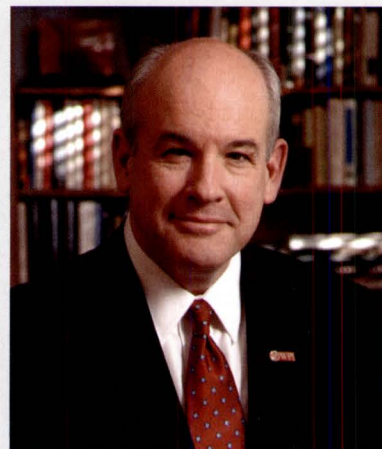
One is the importance of face-to-face contact in the recruitment process with someone who inspires confidence in the proposed experience at WPI. In our case, we are most fortunate that Tom Thomsen, our director of international students and scholars, not only serves as a wonderful advisor to our international students on campus, but also travels abroad extensively to assist our excellent

professional admissions staff. Knowing that their recruiter will also be their advisor is a much-appreciated factor in many students' assessments of WPI.

Another point of emphasis was the importance of food to our international students. Many are vegetarians, and most long for the foods of their homelands.

This is why many international students prefer to live where they can cook for themselves, either on or off campus. Fortunately, ethnic food supplies are readily available in Worcester. As a follow-up to this conversation we will be working with our dining services to increase international components of our menus, and we will be mindful of the importance of access to cooking facilities in the further development of our residential facilities.

Returning to the subject of China, we will be seeing increased activities both in our project centers in China and here on the WPI campus. We have been fortunate to have had strong leadership for the China Project Center complex from Professor Kevin Rong of the Department of Mechanical Engineering and Professor Amy Zeng of the School of Business. They have important networks of Chinese academic colleagues and associates in multinational corporations with whom they collaborate to develop opportunities for WPI project teams, but the logistics and other challenges of developing and administering these opportunities for WPI students cannot be overstated.



Here on campus, Professor Jennifer Rudolph, a Chinese historian in our Department of Humanities and Arts, is working with colleagues to expand our offerings in China studies. We will soon begin offering instruction in Mandarin, for example, to expand our traditional foreign language offerings beyond German and Spanish. (Arabic will also soon be offered.)

WPI's global perspective is one of the most distinctive and important aspects of our educational philosophy and our academic programs, both in the genuine engagement of our project teams in the real culture and problems of their host nations, and in the rich contributions of our international students on our home campuses. As we say about so many aspects of WPI, there is much here to be proud of and thankful for.



## Engineers Without Borders Address Basic Needs in Guatemala

In **Guachthu'uj**, a rural community in Guatemala, families prepare food indoors over smoky wood fires. Burns and respiratory problems are common hazards. Although rainfall is quite high in the region, access to potable water during dry seasons is very limited.

WPI's student chapter of Engineers Without Borders sent a team to Guachthu'uj last summer to collect preliminary data for projects to improve the safety and efficiency of cook

stoves and to ensure reliable access to clean water. The students were accompanied by their advisor, Professor Creighton Peet, and alumnus and mentor Matthew Gamache '99, a water resource engineer.

"I was touched by the vibrancy of the community and how they welcomed us into their homes and lives," said Gamache. "I hope that we can all give our best effort over the next four years to improve their access to clean air and water."

## Repairing Hearts, Thread by Thread

**A heart attack** damages heart tissue, which impairs the heart's ability to pump, which in turn puts the heart at risk for another attack. The heart needs to generate new, healthy tissue after an attack, but it lacks the mechanisms to do this. One way to accomplish this repair may be for stem cells to be applied directly to the area.

Glenn Gaudette's lab is focused on cardiac function, exploring ways to heal damaged heart muscle and developing cell-based methods to treat cardiac arrhythmias. He and his team have been working on a novel technology that a surgeon could use to deliver stem cells to targeted areas of the body to repair diseased or damaged tissue, including cardiac muscle damaged by a heart attack.

The technique involves a suture about an inch long, bundled with biopolymer microthreads—each the width of a hair—seeded with stem cells. The team has shown that adult bone marrow-derived stem cells will multiply while attached to the threads and retain their ability to differentiate and grow into other cell types.

Gaudette's team is already at work on the next steps in this line of research—testing the stem cell-seeded microthreads in a rat model to see if they can engraft into heart tissue and improve cardiac function.

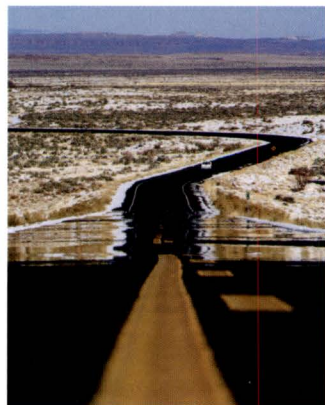
"We're pleased with the progress of this work," says Gaudette. "This technology is developing into a potentially powerful system for delivering therapeutic cells right to where they are needed, whether that's a damaged heart or other tissues."



Patrick O'Connor

## Heat and the Street

**If you've ever walked barefoot** across a parking lot on a hot summer day, you know that blacktop is exceptionally good at soaking up the sun's warmth. Now, a research team has found a way to use that heat-soaking property for an alternative energy source. Professor Rajib Mallick and his colleagues are developing a solar collector that could turn roads and parking lots into alternative sources of electricity and hot water.



"Think about it, we have more than three million miles of highways exposed to sunlight," Mallick was quoted as saying in a recent CNN story, "so if we can harness this energy, it's free, and you don't need photovoltaic solar cells."

A faculty member in the Civil and Environmental Engineering Department, Mallick has developed and tested a prototype system that would embed tubes filled with fluid in pavement to collect heat from solar radiation. In winter, the hot fluid could be collected and then used to keep snow and ice from accumulating on roadways. In summer, the heat could be turned into electricity to cool buildings. Removing heat from roadways in warm weather or warm climates could also help reduce rutting, a condition that shortens the life of roads.

"Asphalt has a lot of advantages as a solar collector," Mallick says. "For one, blacktop stays hot and could continue to generate energy after the sun goes down, unlike traditional solar-electric cells. In addition, there is already a massive acreage of installed roads and parking lots that could be retrofitted for energy generation, so there is no need to find additional land for solar farms."



## The Doing of Dumplings

**Spring festival is the biggest holiday in China.** It's when children return home to be with their families and when friends and relatives visit. For Chinese students who study abroad, this can be a lonely time of year.

So the CSA (Chinese Student Association) hosts a Spring Festival every year, where Chinese students gather with their friends to celebrate Chinese New Year. This year, the festival was all about making and eating dumplings. Students of all nationalities sat together at tables in the Campus Center, talking, laughing, and attempting to contain a pillow of stuffing within a dumpling wrap.

Did the American students succeed at making a good dumpling? "Yes, definitely!" said Yutong Qin. "It's a great first experience for them, and the dumplings don't necessarily have to look or taste 'professional.'"



## Grammy for WPI

**Many of us watched the Grammys** to see what craziness Lady GaGa was up to (arrived in an egg), whether Justin Bieber would sweep the awards (thankfully, no), or if Bob Dylan could still sing (well, yes, if you call that singing). But the WPI chorus, which also includes alumni and faculty, was interested in something else. They had been invited last year by New Age musician Paul Winter to sing on a track of his latest album, "Miho: Journey to the Mountain." The album had been nominated as Best New Age Album. "Miho" won the Grammy that night, and the chorus was jubilant.

WPI's relationship with Winter (who now has seven Grammys under his belt) dates back 10 years, when he first invited WPI choral director John Delorey and his students to perform in New York City at the Feast of St. Francis at the Cathedral of St. John the Divine. WPI's participation at the festival has become an annual tradition that is eagerly anticipated by both undergraduates and alumni.

## WPI Ranks High

- ▲ 11th best for helping women succeed in science, technology, engineering, and mathematics —Forbes.com
- ▲ In Top 5 Schools of Business providing the greatest opportunity for women —The Princeton Review
- ▲ 7th-highest starting median salary among engineering schools —PayScale, Inc.
- ▲ 9th-highest mid-career median pay among engineering schools —PayScale, Inc.
- ▲ In Top 10 for highest starting median salary among all colleges and universities —PayScale, Inc.

# New Deans Lead the Way



Patrick O'Connor

**For the first time** in its 146-year history, WPI leadership includes three academic deans whose charge is to help take the university to the next level. But whatever changes may come, the scientist, entrepreneur, and engineer who hold the inaugural deanships are steadfast in their belief that the footings on which WPI is built are to be reinforced, not reinvented.

Indeed, many defining WPI characteristics—experiential learning, interdisciplinary collaboration, use-inspired research, and a culture that equally fosters intellectual curiosity, scientific discovery, and artistic expression—were inspiration for

these internationally acclaimed scholars to make WPI their academic home.

Hailing from the National Science Foundation, Karen Oates, Peterson Family Dean of Arts and Sciences, has seen just about every model for undergraduate education. “WPI is a special place,” she says. “It appeals to me as a scientist that the curriculum is built true to evidence of how people learn and that it has continually evolved, particularly through the problem-based engagement of students in the community.” A biochemist, Oates’s love of science fuels her passions as a

Selçuk Güçeri, Dean of Engineering, Karen Oates, Dean of Arts and Sciences, and Mark Rice, Dean of the School of Business

researcher and educator. Grateful also to see beauty in everything—from a chemical experiment to an opera—she is compelled to pass on this appreciation as she works toward greater diversity of thought, ideas, and people on campus.

Oates and her fellow academic deans, Selçuk Güçeri, Bernard Gordon Dean of Engineering, and Mark Rice, Dean of the School of Business, have come to WPI seemingly at the pinnacle of their careers, each with a deep hunger to achieve more. For WPI, that means moving higher among the ranks of national research universities—a move the deans are confident will further strengthen the outstanding undergraduate experience here.

“This is a very strong and healthy institution, and I think its primary asset is that no one settles, even when things are good,” says Rice, a renowned authority on innovation and global technological entrepreneurship, who joined WPI from

value generation, the substance?” A national leader in engineering education and research, Güçeri has come to small, collegial WPI from Drexel University, the largest engineering college among private universities, believing this to be the place where he may make his greatest contribution.

Like Rice, Güçeri has an entrepreneur’s mindset and believes in teaching the practical aspects of running, creating, and growing a business—and in the thrill of invention that comes from seeing its impact. Common research interests and sponsored research opportunities are high on everyone’s list of priorities. Oates is bringing faculty together around business ethics, the cross-pollination of systems dynamics, economics, and psychology. “The faculty here is a think tank for building an innovative pedagogy,” says Rice. “They are coming forward with ideas for adding a dimension of entrepreneurship and innovation across disciplines.”

“The world needs engineers who know how to turn research into innovation and innovation into impact.”

Babson College. “There is a real sense of ‘how can we make it better?’ As an entrepreneur, I’m drawn to the opportunity to create something new and exciting, but I’ll be building on established strengths.”

This entrepreneur is also an engineer, having earned two degrees in the discipline before getting his PhD in management. So Rice had the credibility he needed when a 1940s-era alumnus called early on to ask why “my engineering school” needs a business school. It’s a question Rice has fielded from students of every generation. His response is always steeped in the reality of current times and the power of this place: “The world needs engineers who know how to turn research into innovation and innovation into impact, and WPI has the approach, talent, and enduring commitment to make it happen.”

Güçeri wholeheartedly agrees. He has long admired WPI for knowing when and how to adapt to maintain its position as a role model for engineering education. “Leaders must keep moving or they fall behind,” he says. “You cannot be a good engineer if you cannot make products that sell. Where is the

Extending the WPI project experience toward civic engagement, locally and globally, is another purposeful direction. “This is an amazing environment for high achievers interested in foreign and civil service, law, medicine, and secondary education—especially teaching science, mathematics, and technology,” says Oates.

“Know what you are looking for,” Güçeri says. And he does. He is seeking “high impact” in terms of what faculty members offer, what students take away, and how society benefits. With increased research funding—private and public—the three deans will enhance the work of existing faculty and attract new talent and doctoral students whose collaborative efforts will create new knowledge.

Oates, Güçeri, and Rice are ready to roll up their sleeves and practice what they preach. What better way to lead the charge for a comprehensive university that prizes integration across the disciplines than for each to have a hand in teaching a course on leadership, creativity, innovation, and entrepreneurship? Like their doors, the class they will co-teach in fall 2011 will be open to all.

# So you want to be a Rock 'n' Roll Star?

STUDENTS' COMPUTER SOFTWARE MAKES A GAME OF IT



Patrick O'Connor

**Not every plan** hatched in a college dorm is a good idea, but this one just might be a winner. It's an electronic guitar game called *Digitar* that made it to the final round of the 2010 President's IQP Awards Competition.

*Digitar* is the brainchild of Patrick DeSantis (ECE '11), Sean Levesque (ECE '11), and James Montgomery (ECE '11),

three friends who roomed together their sophomore year. Tossing around ideas for their junior-year Interactive Qualifying Project (IQP), they first thought about designing a new musical instrument. But then they bought a couple of guitars, just for fun, and made a maddening discovery: learning to play the guitar is difficult!

The students were surprised; after all, both DeSantis and Levesque had some prior musical experience (Levesque on saxophone and DeSantis with keyboards), and all three play the music video game Guitar Hero. But a guitar requires careful fingering, and the instrument has a special musical notation, called tablature, that has its own learning curve. Guitar Hero teaches neither fingering nor tablature, nor does Rock Band, the other major guitar game on the market. The gamer's "guitar," in fact, has no strings—just buttons—and requires no real fret work at all. A gamer can achieve an expert level in a guitar game and yet be unable to play so much as "Louie Louie" on a real guitar.

"We were frustrated, to be honest," DeSantis says. "We wanted to learn to play the guitar, but we wanted it to be intuitive and fun and exciting, like the game. What's so cool about games is that they are designed to be engaging, even

"Digital," would be lifelike and yet work economically in a learning-game environment.

The team's proof-of-concept instrument was as home-grown as a high school garage band. When they couldn't find a parts-guitar on Craigslist, they bought an old guitar neck, fully strung, and attached it to a guitar body they made from plywood in DeSantis's dad's woodshop. They used a unique system of sensors for the frets and the strum board, strung a tangle of wires, incorporated a Texas Instruments MSP430 microcontroller in the circuit, and secured the wiring with black grip tape. The result was surprisingly handsome—and it worked. They dubbed it "Splinter," for the splinters it threw off each time they used it.

Next came the game software. Here the challenge was to design and encode a musical notation system that players could easily grasp and master. The team felt that traditional staff and

"We're not exactly saving lives with this project. But if we could bring more people to music, that would be a good thing."



addictive. You can be doing the same thing over and over again—for *hours*—and not tire of it because the environment is so exciting. So we asked ourselves, "What if we could design a more guitar-like electronic interface and adapt a more game-like, animated notation that could help non-musicians learn to play the guitar?"


They took the idea to Fred Bianchi, D.A., professor of music and director of computer music research, and Alex Wyglinski, Ph.D., assistant professor of electrical and computer engineering, who agreed to serve as their IQP advisors. Then they got to work.

The first challenge, and the major innovation, was to design and build a surrogate guitar, the "controller," that could record a player's real-time fret work and strumming and communicate that information directly to a computer, using the music industry's MIDI protocol, which translates music into digital information. The computer would then generate the corresponding musical sounds. The team wanted the controller to be realistic, to have strings and a full set of frets, not the 6- to 10-button design of the controllers currently on the market; that way, the player could practice full fingering, which on a real guitar can produce more than 120 string-and-fret combinations. The end product, the

tablature notations were too daunting for non-musicians, so they patterned their notation on the animated scores found in Guitar Hero and other games. In the Digital version, color-coded notes fall from the top of the game screen onto a graphic representation of a fretboard. When the notes reach their destination, they are played on the controller. In this way, both note value and rhythm are easily conveyed.

"This project creates a springboard for video gamers to explore the possibility of serious musical instruction within a game environment," says Bianchi. "It opens a new door, showing us that there can be multiple entry points to a life of music."

The Digital system plays MIDI music files, millions of which are available free on the Internet, making the Digital a very attractive learning system for the consumer market. Seeing this opportunity, the design team wrote a business plan for the Digital system and entered it in two WPI competitions last year, taking first place in the Strage Innovation Competition and second in the Daedalus Innovation Competition. As the final round for the 2010 IQP Awards Competition loomed, and while juggling meetings with their patent advisors, the team replaced "Splinter" with a sleek, raspberry-pink guitar body.



# Collaborations AND Community

President Berkey on the WPI relationship with China

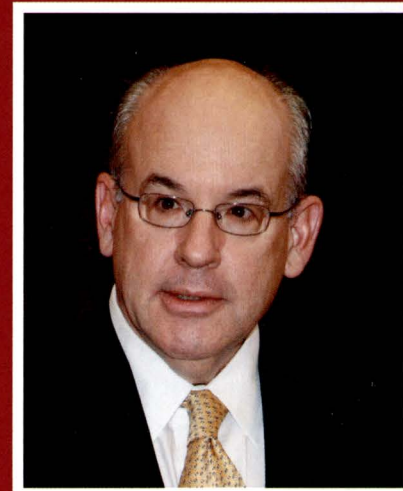
(CHINA)

# 中国

In October 2010, WPI President Dennis Berkey traveled to China with a delegation that included his wife, Catherine Berkey, ScD, lecturer in medicine at Harvard Medical School; Kevin Rong, PhD, professor of mechanical engineering; and Jennifer Rudolph, PhD, associate professor of humanities and arts. During their weeklong trip, the WPI group visited Beijing Jiaotong University and Tsinghua University in Beijing, Huazhong University of Science and Technology in Wuhan, Shanghai Jiaotong University, and Shanghai University.

*Transformations* recently sat down with President Berkey to discuss his trip, his observations, and his insights on our relationship with China.

— Charna Westervelt



# 美国

(UNITED STATES)

Was this your first visit to China on behalf of WPI? Why was it important to you to make this trip?

Previously I had visited our project center in Hong Kong with Professor Ed Ma, and we met with Trustee Glenn Yee '74, who was a most gracious host. Otherwise, this was my first mainland visit and Cathy's first altogether. The purpose of this trip was to strengthen WPI's relationships with five Chinese universities, and to attend the final MQP project presentations by our students who had been at our China Project Center during A-Term.

What kinds of collaborations are taking place and why is it important to maintain these ties?

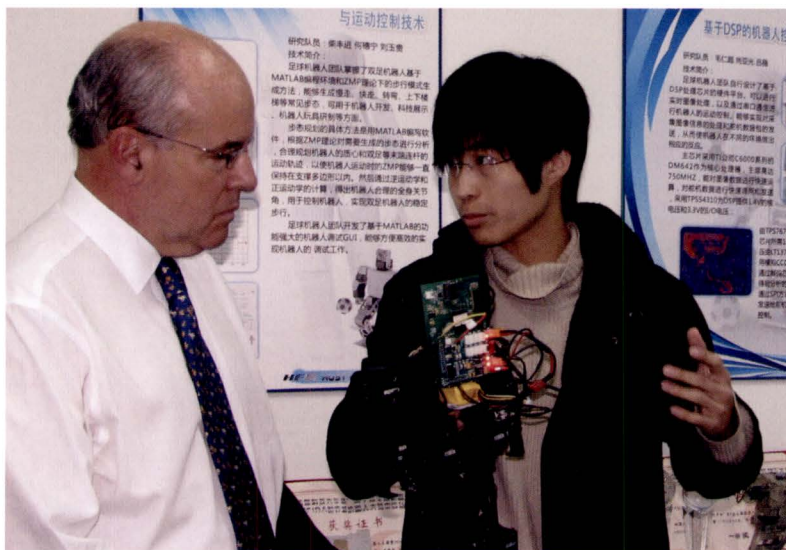
Several of our faculty, including Amy Zeng in the School of Business and both Rick Sisson and Kevin Rong in the Mechanical Engineering Department, have research relationships with colleagues at these universities. They also exchange and sponsor students—both graduate and undergraduate. Amy and Kevin co-direct the China Project Center, which

promotes cross-cultural collaborations between WPI and Chinese university students working together on project teams. More generally, we have agreements in place for the exchange of faculty and students, and for research collaboration.

How would you characterize the collaboration between our MQP students and their Chinese peers?

I was very proud to witness not only the excellence of the teams' work and the eloquence of their formal presentations, but also the evident bonding and mutual respect, even friendships, that had developed between the WPI students and their Chinese teammates. In my formal remarks at the well-attended colloquium where they presented their results, I noted that they had collaborated successfully not only across the Pacific but also across centuries of cultural and historical differences to advance global innovation, technological advance, and good will. The WPI students were, as they always are, wonderful ambassadors for WPI and for our nation.

“The Chinese and American students collaborated successfully not only across the Pacific but also across centuries of cultural and historical differences.”







From left, President Dennis Berkey, Catherine Berkey, and Associate Professor Jennifer Rudolph.

How did the mechanical engineering programs at the universities you visited compare with labs at WPI?

We observed a high degree of engagement of the undergraduate students, including recently enrolled freshmen, with sophisticated manufacturing tools and technologies, such as computer-controlled milling and manufacturing systems. They also do early and extensive work with materials, producing scale models of structures, buildings, bridges, aircraft, etc. It is a very practical engagement with the tools and methods of production. There is a strong focus on manufacturing technologies and systems. We saw several robotics laboratories where work appeared similar to what one observes on our campus, including autonomous soccer-playing robots. We were invited to operate the simulator at the high-speed rail technology center at Beijing Jiaotong University, which was fun and most impressive. Our visits were very brief, but from what we saw, the facilities and activities were, by and large, not too much different from what one would observe in leading U.S. universities.

One difference we did note, however, was the lack of cross-disciplinary collaboration between mechanical engineering and business/management programs or the life sciences, which is unlike our approach at WPI and, certainly, at other universities in this country.

Jennifer Rudolph, an authority on Chinese history and culture, was part of the delegation that traveled with you. Did culture play a major role in this trip?

Jennifer was a wonderful companion and interpreter of the cultural and historical context for so many aspects of what we saw, including the Great Wall, the Forbidden City, Tiananmen Square, a most interesting museum in Wuhan, and everyday life in the urban centers. We stayed in the old part of Shanghai in what is called the French Concession, which was lovely, but Jennifer also hosted us for a fascinating visit to Pudong, the ultra-modern part of the city. She also took us to the city planning department of Shanghai, where there is a huge scale-model of the city done in great detail. Given China's rapid development and long history, Jennifer provided rich insights into so much of what we saw and experienced.

What was the highlight of the trip for you?

There were many highlights, as the trip was quite intense. The Great Wall and the natural beauty of China were breathtaking. The warmth with which we were received by our hosts, including faculty and students, was most impressive. Observing the rapid pace at which China is developing its infrastructure was sobering. And, of course, seeing our WPI students presenting their excellent work with such poise and grace was among the best of the highlights.

Are you planning more international visits?

I try to make one or two international trips per year for the purposes of visiting alumni and other donors, attending important international meetings, and/or visiting WPI project centers. We are often able to combine several of these agendas in a single trip. I expect that we will continue to develop new international project centers, but we do so based on interests of faculty members, usually resulting from regional interests or research relationships rather than by direction from the administration. That is as it should be, as project center leadership is very demanding of faculty time and energy.

Did this trip to China strengthen the relationships between WPI and the five engineering institutions?

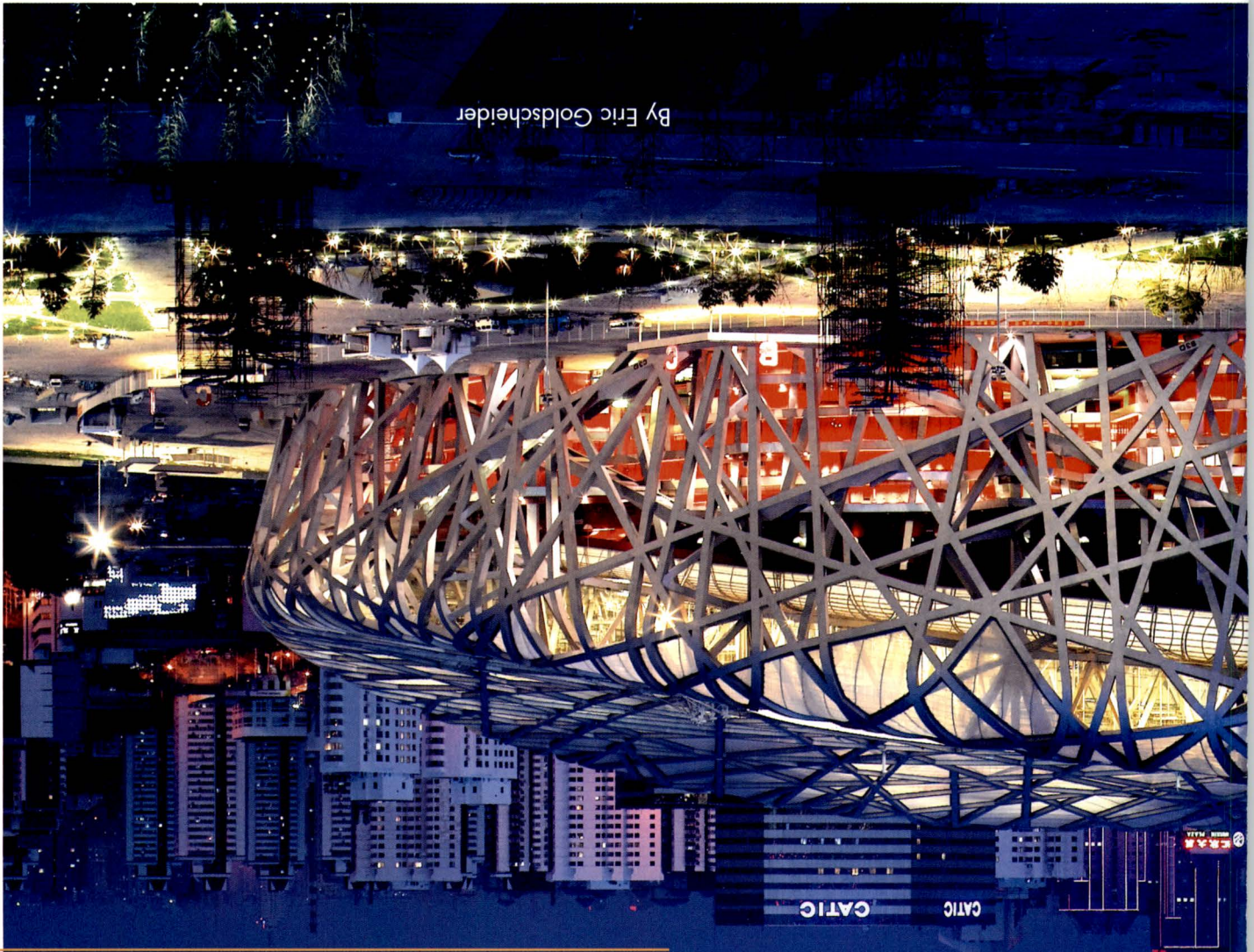
We certainly believe so, judging by the interest shown in advancing these relationships. Professors Rong and Rudolph have developed a trip report that will serve as a basis for advancing these relationships, and Professor Sisson made a visit to China soon after ours, which also showed promise of expanded relationships with some of these same institutions, as well as some in Korea. Collaboration with these Asian partners holds great promise for increased opportunities for our students and faculty, and for technological and educational advance. The key will be to choose and craft those types of relationships best suited to WPI's strengths and aspirations. I am optimistic for these continuing developments. ■

# China's Building

With growth and innovation comes new **fire safety** concerns.



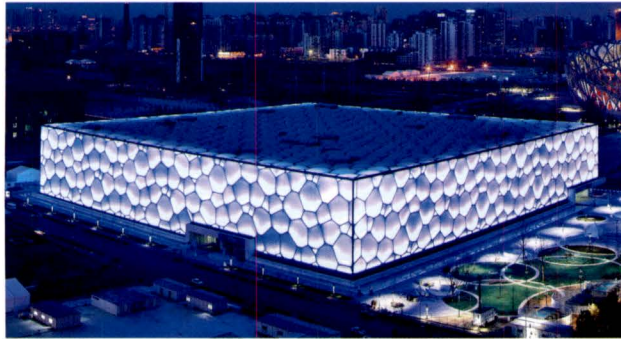
Marcel Lam Photography



By Eric Goldscheider

# Boom

Among the most memorable images from the 2008 summer Olympics in Beijing were those of Michael Phelps winning eight gold medals. But perhaps equally impressive to fans on the scene and to television viewers around the world was the building in which he performed these feats. The National Aquatic Center turned heads as a triumph of ingenuity and beauty. When Kulbhusan Joshi sees that building, he doesn't think about world records or about beauty and design, but about fire. And about buildings with pioneering designs safe from the threat of fire.



Dubbed “The Bubble” because of its resemblance to froth, the structure (above) looks like a freestanding block of water. This arrestingly unusual space conveys uniqueness, forward thinking, and a sense of excitement about China’s rising prosperity and its concomitant star turn on the world stage. Buildings like this one and the nearby National Stadium (previous page), called “The Bird’s Nest” because it looks like it might have been made from twigs, are emblems of a building boom unparalleled in the history of a county that is home to nearly a fifth of the world’s population. As millions of people are migrating to its cities, skylines all over China are morphing.

Joshi, a native of Mumbai, India, who is in the final stages of earning a PhD in fire protection engineering at WPI, points out that originality in form requires original thinking in how to accomplish functional objectives. “With every innovation there comes a new fire safety concern.”

Brian McLaughlin ’01, ’02 (MS FPE) agrees that when innovative designs are in play, it is important to make sure that form and function are thought of in tandem from the start of the design process. McLaughlin, who has worked in Hong Kong, among other international sites, is currently based in the Los Angeles office of Arup, an international engineering firm that participated in the design and construction of the National Stadium and the National Aquatic Center.

The key, he said, is to consider fire protection engineering principles early on. “At the concept stage you can still make suggestions,” he said. “The goal we have with an architect is to enable their designs to come to reality while still maintaining the appropriate level of safety.”

In the case of the National Aquatic Center, the repetitive geometric design and the innovative outer casing posed special challenges, according to Jeff Tubbs ’90, ’95 (MS), another Arup engineer with knowledge of the project. Scientists developed computer models, he said, to figure out how loads would be redistributed if the heat of a fire compromised individual support features. This is an example of what is called performance-based design. When architectural elements are so innovative that existing fire codes give little guidance in evaluating construction criteria, performance-based design models not only help illustrate the behavior of structural elements in a fire, they are also used to predict smoke migration patterns and crowd responses to situations where a quick exit is of utmost importance.

Fire safety in China isn’t just about figuring out how to protect innovative architectural structures. It is also about dealing with the multitude of new buildings sprouting up at an incredible rate due to the burgeoning economy.

The demand for fire protection engineers is booming in China as a result of unprecedented new construction, says Fang Li ’01 (MS). Li heads the Shanghai office of Rolf Jensen and Associates, an international fire protection consultancy firm, as executive vice president of China operations.

“Everybody realizes how important fire safety is,” said Li in a recent interview, “but people talking about fire protection have no idea how that applies to engineering.” The field of fire protection is based on the premise that engineering principles can be applied to planning for the unexpected. Li’s office of 12 people is currently serving more than 100 clients. Their projects include shopping malls, airport buildings, a train station, and a convention and exposition center in the industrial city of Suzhou, 60 miles west of Shanghai.

Performance-based design is one of the frontiers in fire safety, according to Kathy Notarianni, who heads WPI’s Department of Fire Protection Engineering. This new direction in fighting fires before they occur is connected to advances in computer modeling and the ability of engineers to create algorithms to predict the path and speed of combustion and smoke, as well as human behavior in emergency situations. This development is driving a reevaluation of fire safety codes not only in the realm of innovative and original designs for enclosed spaces, such as those built for the Beijing Olympics, but also for the more common structures of everyday life.

A seminal event in the history of the field, said Notarianni, was the release in 1973 of *America Burning*, a report issued by a national commission established by the Nixon administration. A key finding was that the United States had some of the highest fire-related death rates among industrial countries even though it spent the most money per capita on fire prevention and control.

## Engineers create algorithms to predict the path and speed of fire and smoke as well as the behavior of people in emergency situations.

“We were blindly putting many requirements into the code that were costly,” said Notarianni. Legislation around fire codes is often a response to the most recent high-profile fire. “It’s a lessons-learned approach,” she said, “we were sort of chasing our tail.” The *America Burning* report marked the beginning of a real interest in bringing science and engineering to bear on the problem.

Performance-based design requires clearly defined objectives, such as that everyone in a building is able to get out safely in the event of a fire. With basic goals in mind researchers create computer models aimed at accurately predicting the trajectory of all possible scenarios. “The physics of fire modeling is extremely complex,” said Notarianni, as is human behavior, especially when design challenges involve large numbers of people.

Much of the work being conducted in fire science laboratories at WPI strives to enhance understanding of the properties of building materials, especially new composites being developed to make innovative designs possible. The items within buildings—appliances, decorations, fuels, gasses—are also of interest.

Industry and academic laboratories are constantly generating data that can be fed into computer simulations, along with the geometry of the spaces being considered and the expected impact of fire suppression equipment.

Randall Harris has managed a laboratory in WPI’s Department of Fire Protection Engineering since 2002. Under his care, tools such as a thermal gravimetric analyzer can test substances and materials at the nanogram scale to determine their melting points by plotting weight alongside very precise temperature measurements. An array of calorimeters are used to burn materials under controlled conditions. This allows researchers to collect data on everything from how long it takes a given specimen to ignite under a given set of circumstances to the special characteristics of effluents. The smoke and soot emanating from combustion is channeled through a hood into a chamber where a laser beam passes through it to measure how it affects light.

Harris also has a space in which a room-sized conflagration can be set off. “From time to time researchers need a place where they can just have a big fire and have it be safe and measurable,” he said. The purposes of the larger fires are often to validate the results of the smaller burns. “If we get

within 20 percent of what we predicted, we’re doing good,” said Harris. “The science is still new and we are still finding things out.”

In addition to being a place for faculty and students to conduct research, the lab is rented out to industry and municipal clients for a fee. Recently, the Bay Area Rapid Transit (BART) system that connects San Francisco, Oakland, and adjoining communities used the facility to set a mock subway car aflame.

“The basic idea was to use specimens of everything in the car, from the glass windows to the electrical wires to the carpeting to the seats,” explains Harris. Besides analyzing the smoke, the chamber in which the fire is set has sensors in the floors, walls, and ceilings, as well as multiple stands with equipment that not only measures heat but also the direction and velocity of airflow. A video camera captures a visual record of the fire. The goal, said Harris, “is to characterize everything that’s in there and then look at that as a composite picture to find out how these things are going to react together.”

These are the kinds of skills 22-year-old Yanxuan Xie is hoping to someday bring back to southwestern China and his native city of Chengdu, which is growing so quickly that he can remember seeing farmers grazing their cows in a section of the city that within half a year was transformed into a commercial center.

Xie didn’t know what he wanted to specialize in when he arrived at WPI as a freshman. He credits one of his professors with alerting him to the field of fire protection engineering and to “the huge need in China” for the skills it entails. He is in his final semester of the five-year BS/MS degree program through which he also earned a bachelor’s degree in civil engineering.

“This kind of engineering is different,” says Xie. “Fire protection has the aspect of protecting people. It gives me the sense that it is a really noble position in which I can make a contribution, and that when I go back to China I could become a leading figure.” ■

# MADE IN CHINA



When President Hu Jintao made a state visit to the White House in January, an NPR commentator concluded that the momentous summit with President Barack Obama underscored China's status as "America's top economic rival."

Perhaps, but the WPI community is proving that the relationship between the two powerhouse nations is more complex and symbiotic in nature. Here are four perspectives from alumni who are benefitting from collaborations—rather than competition—with Chinese colleagues.



**Daniel Boothe '05** is an acoustical engineer whose expertise is in loudspeaker design. At EAW, a division of Loud Technologies in Whitinsville, Mass., Boothe leads projects involving houses of worship, corporate AV, nightclubs, and stadiums. He has worked on site in China with contract manufacturers on initial production quality.



**Pamela Giasson '05**, an R&D battery assembly supervisor at A123 Systems in Watertown, Mass., spent time on site at the company's electrode coating and lithium ion battery manufacturing facilities in Shanghai and Changzhou.



**Bob Falciani '68**, a principal at AlfaTech in San Jose, Calif., has a particular expertise in bi-pharmaceutical and electronics facilities throughout the U.S., Europe, and Asia. His work in China has dealt with high-technology manufacturing, including semiconductor manufacturing, test and assembly, and data centers.



**Al Barry '77** of Atlanta is an entrepreneur with consulting and manufacturing business in the U.S. and Asia. He holds five patents (one from the People's Republic of China) and is a member of the WPI Mechanical Engineering Advisory Board. He earned master's degrees in engineering and business from Georgia Institute of Technology.

## BARRY'S PREDICTIONS



China will be the largest economy in the world, though many countries will have a larger middle class with far fewer people in the lower economic class. China will struggle to balance the present imbalance of wealth accumulation.

China will feel repercussions from Western nations that are not allowed to sell in the closed or protected Chinese markets. Western nations may be less likely to purchase Chinese goods or to allow Chinese firms access to their markets.

Popular perception of products coming out of China is that they are of low quality.

That is certainly true some of the time, but I've been pleased to discover it is possible to make high-end loudspeakers there as well. The quality can be as high as the time one is willing to spend insisting on it, and the amount of money one is willing to spend sending engineers like me halfway around the world. —Boothe

If electrification is the **answer to a greener planet and a more efficient way of life, China could get there first, making its economy very hard to compete with.**

—Giasson

When I started, in 2001, it was easy to recruit untrained, raw labor at very low cost. The opportunity was to use this labor to manufacture and assemble products for export. The factory overhead was also much lower than in the West. The low labor and low overhead costs were somewhat offset by higher transportation costs to the Western markets. —Barry

Unless a Western firm plans to establish a true Chinese entity, the longevity is limited due to the fact the Chinese will learn fast and take it forward themselves. —Falciani

In China, the group is more important than the individual, tradition is more important than a new idea, and consensus is more important than the demands of a single person. In China, the group is accustomed to being led and to following the leader. I had to learn when to step forward and lead, without being a ruthless dictator or a wild cowboy. I continue today to read everything I can about the history, culture, politics, and economy of China. —Barry

China realizes that with its more recent economic growth it is probably the only world power that has the **"luxury" to plan its development** with all of the knowledge and experience that the last part of the last century has to offer.

—Falciani

As China's wealth increases, so does its ability to invest in its future. Over the past couple of years it has made very noticeable investments in improving transportation networks and building the newest hotels and office buildings. It has also been investing behind the scenes in an improved electrical infrastructure. China plans to install tens of nuclear power plants throughout its nation over the next 5–10 years and to build the **most powerful and sophisticated electrical grid in the world.** At the same time, it is investing heavily in electrifying its vehicles and reducing fossil fuel consumption. —Giasson

Eventually, **the cost of doing business in China** must rise due to its explosive growth, and the incentive to innovate will become greater. But I predict it will be a long time coming. —Boothe

With its Communist government, China is able to make decisions and implement changes very quickly, compared to most other governments around the globe. Because China can react faster, it has the **opportunity to catch up** over the next 15–20 years. —Giasson

Chinese firms will work hard to learn Western management and marketing techniques and seek to emulate the Japanese model of investing in foreign countries rather than exporting all products from China.

The Chinese government will have a difficult time controlling the Chinese military and national pride. More incidents will occur where China interferes with other countries, or attempts to extend its sovereign rights. The strong economy will drive expectations of a strong military and a larger role in global affairs.

The Chinese people will continue to expect more openness, more transparency, and more individual rights from their government.



# Looking Back By Michael W. Dorsey *to* Look Forward



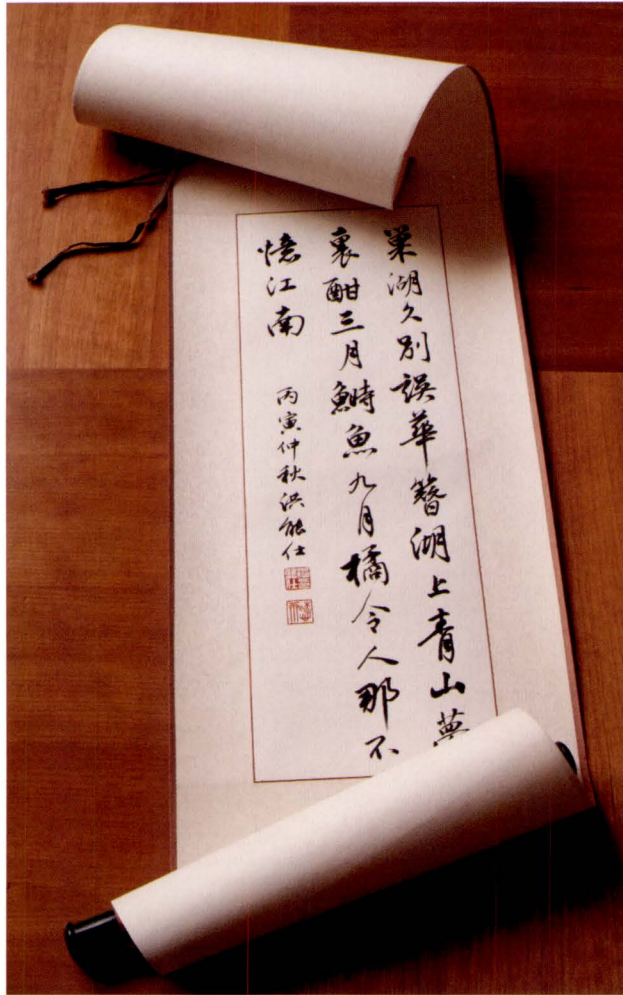
**Were it not for a technicality,** Jennifer Rudolph, associate professor of Asian history at WPI, might have become a doctor instead of a scholar of Chinese political history. Enrolled as a pre-med major at the University of Chicago, she signed up for a course sequence in far-Eastern civilization to fulfill a core humanities and arts requirement. She loved the courses and her professor. “He would tell us that everything good came from China,” she says, laughing.

When the time came to fulfill her foreign language requirement, she opted for Chinese. But then her advisor informed her that she couldn’t take both organic chemistry and Chinese. She’d have to choose—between the courses, and, more to the point, between continuing her pre-med studies and switching majors. “I dropped out of organic,” she says. “I liked pre-med, but it didn’t light my fire in the way the Chinese sequence had.”

She earned her bachelor’s degree in far Eastern languages and civilizations and was accepted into the Inter-University Program for Advanced Chinese Language Studies in Taiwan. She spent a year and a half in Taiwan becoming proficient in spoken and written Mandarin Chinese (she can also speak and read modern Japanese and read classical Chinese and Manchu). Returning to the United States, she put her language skills







to good use as general manager of the U.S. office of Fusion Electronics, a small joint venture that made laptops in Taiwan, and then at SEI Information Technologies, an IT consulting company. By that time she had decided to return to school. “Working at SEI was the first business experience that I found truly stimulating,” she says, “but I wanted more depth, more expertise, more understanding of the world around me.”

She enrolled at the University of Washington in Seattle, where she became immersed in institutional and political history. “This is the stuff between political science and history,” she says. “This is how politics works and operates in contemporary contexts, but to understand that you have to have a historical basis.” She turned her attention to the modern institutional and political history of China, but as she read the portraits of the modern period captured by Western scholars, she began to wonder if they’d gotten the story right.

In this popular view, China in the latter half of the 19th century was a nation in turmoil, but also a nation that kept its eyes closed. In the waning years of the Qing dynasty, which had ruled the sprawling empire since 1644, humiliating losses to foreign armies and navies and internal revolts that threatened the country’s stability put the government in crisis. The world was changing all around it, but China seemed unable to adapt and modernize. Its stagnation would lead, in short order, to the downfall of the Qing dynasty and a century of upheaval.

But to Rudolph, this narrative didn’t ring true. “The Chinese government was populated by people who had gone through a rigorous civil service examination,” she says.

Rudolph’s scholarship resulted in a book that is credited with revising our understanding of this pivotal period.





“They were really smart; they weren’t unaware. They recognized Western military might, and they debated many courses of action.”

She notes that much of the work done on modern Chinese history through the 1970s was written from a distance. “Many of the people who wrote these works were great scholars,” she says, “but they had limited access to the original source documents and they were immersed in the paradigm of modernization theory. China had not followed the accepted modernization path; moreover, it was a Communist state and had closed off its mainland archives to outsiders.”

Rudolph’s graduate studies came on the heels of the normalization of relations between China and the United States and coincided with the opening of those archives to Westerners. She spent nearly two years visiting archives in Beijing and Taipei, studying the intricacies of Chinese bureaucracy in the late 19th century, a time the Chinese called the Self-Strengthening Period.

She discovered that the Zongli Yamen, the most important government organization established at that time, was far more than an ineffectual Western-style Chinese response to the country’s defeat during the Opium Wars, which was how accepted scholarship portrayed it. Rather, it reflected top-level awareness of the need for innovation in governance and represented a significant and forward-looking Chinese-based effort to reassert central control in an era of decentralization.

Rudolph’s scholarship resulted in a book, *Negotiated Power in Late Imperial China: The Zongli Yamen and the Politics of Reform* (Cornell East Asia Series, 2008), that is credited with revising our understanding of this pivotal period. “The Zongli Yamen is known as China’s first foreign office, but it was really closer to a state council or cabinet,” Rudolph says. “It was in charge of all modernization. The

Qing Dynasty had the world’s most mature bureaucracy; how do you add to it a government organ that is responsible for all modernization? Think about how many tentacles it had to have and how much jurisdiction and control it needed. Think Homeland Security,” she adds, noting that the U.S. department created to build bridges between disparate intelligence agencies may be the best modern analogy for the Zongli Yamen.

Before the creation of the Zongli Yamen, the Chinese government consisted of many parallel hierarchies, all reporting up to the Grand Council—the only Qing office with comprehensive jurisdiction. Horizontal linkages were nonexistent between these silos. “The Zongli Yamen, because it was in charge of foreign relations, because it was in charge of mining, the post office, and all of the other operations that go along with modernization, had to have mechanisms in place that linked the parallel hierarchies of the new foreign affairs administration and the established territorial administration so that it could access necessary information,” Rudolph says.

These linkages made possible the give and take that was central to the process of fostering change within a centrally controlled organization, she says. “This is a difficult process. It takes constant negotiation. Where does the power come from? You can decree it, but it ultimately has to become a de facto kind of power.”

While the Zongli Yamen was short-lived and the Qing Dynasty, itself, collapsed in 1911, Rudolph says the tale of the Zongli Yamen is nevertheless a story of significance. It demonstrates that China was able to develop its own approach to innovation and change, one that ultimately helped rationalize governance and usher in a more ministerial type of rule.

Significantly, as China distances itself from a century marked by wars, civil strife, and revolution to build a modern,

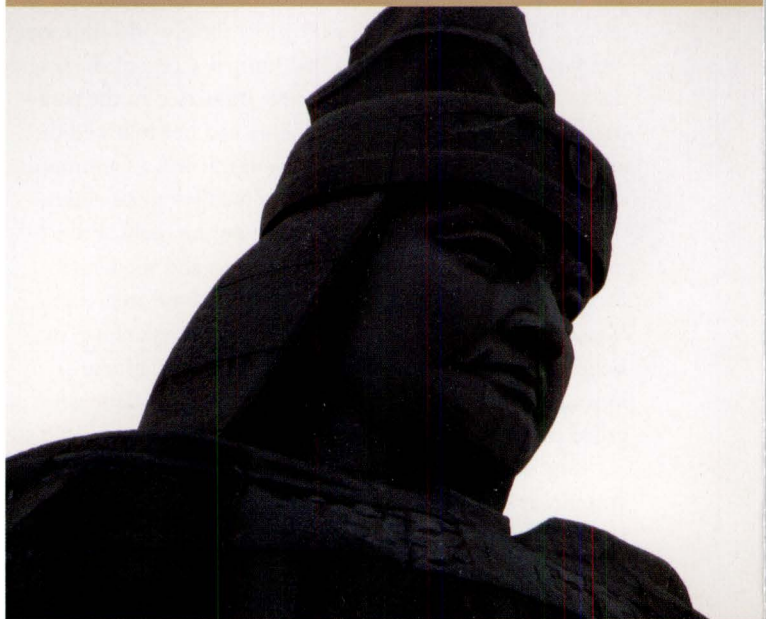


innovation-driven economy, it is reexamining the structures of the Zongli Yamen. “What is interesting it that they are in some ways doing the exact same thing the Zongli Yamen did,” she says. “Take, for example, the banking system in China. It is state owned and controlled, but all around it you have economic liberalization taking place. So all of a sudden, the banking system is opening up. You still have to keep control at the top, but there is an effort to establish horizontal linkages.”

For Rudolph, the story of the Zongli Yamen holds an important lesson for today’s government and business leaders: sometimes, to understand what is really going on in a complex and nontransparent country like China, you need to look in unexpected places. “China is evolving so quickly,” she says, “and we tend to look at the top and the bottom for clues: What is the Politburo doing? Are there lots of protests by average citizens?”

“But you need to look in the middle to see how the country is actually working. It’s there that you’ll get a real understanding of whether or not China will be stable and whether the economic reforms and the pace of reforms will be sustainable. A lot of attention is being paid to that area in China right now.”

And a lot of attention is being paid to China, itself, around the world, as it emerges as a major and influential economic power. As the recent visit to Washington by Chinese president Hu Jintao made clear, “the United States and China are two giants that are going to have to share the stage, at least for the foreseeable future,” Rudolph says. A great deal of uncertainty remains about how that relationship will play out, and just where the path of economic and political reform will take China in the years ahead. As the Obama Administration strains to get a clearer picture of that future with history-conscious China, Rudolph says, it doesn’t hurt to take a moment to examine the past. ■



The life of Zheng Chenggong, a 17th-century pirate, has served as an inspirational tale for centuries of Chinese societies and cultures. Sculptures of him abound on both sides of the Strait of Taiwan. Photo by Jennifer Rudolph.

# The Zelig of Taiwan

In the 1983 film *Zelig*, Woody Allen plays a human chameleon who can fit into any situation by taking on the appearance and mannerisms of those around him. One of the more remarkable stories in modern Chinese history is the Zelig-like tale of a 17th-century pirate whose life and story have been transformed again and again to fit the purposes of a string of governing powers.

The story of Zheng Chenggong, known as Koxinga in the West, is intimately intertwined with the history of Taiwan, says Jennifer Rudolph, who is working on a book about the changing sense of “place identity” on this island that lies less than 100 miles from the coast of mainland China.

Taiwan’s identity is no small matter, Rudolph notes. In 1949, when the Chinese Communist Party came to power in the People’s Republic of China (PRC), the losing side, the Nationalists, found safe haven on Taiwan for their regime, the Republic of China (ROC). “Ever since, there have been two Chinas,” she says. “This stalemated civil war makes the international status of Taiwan complicated: is it a nation-state, or is it a province?”

The PRC claims the island as a province, but since 1949 Taiwan, as the ROC, has acted as a *de facto* state. The United States recognized Taiwan and the ROC as the rightful China until 1979, when it switched its recognition to the PRC. “All of this makes Taiwan’s identity hotly contested,” Rudolph says, “and it makes Zheng Chenggong an important figure once again.”

Zheng Chenggong’s father was Chinese—a merchant and pirate—and his mother, daughter of a Samurai, was Japanese. After the Manchu invaded southern China and drove out the Ming emperor, Zheng, a Ming loyalist, fought the new Qing Dynasty until forced to flee to Taiwan. There, he drove out Dutch colonists and turned the once lawless island into a thriving Ming outpost and commercial state.

Zheng ruled Taiwan until his death from malaria in 1662. His children held onto power until the 1680s, when the Qing empire conquered the island and decided that it made political and economic sense to annex it. To help strengthen ties between Taiwan and the mainland, they also co-opted the memory of Zheng, whom they’d previously viewed as a traitor and outlaw. Under the new regime, he was lionized as a Confucian god for his service as a loyal official of the Ming.

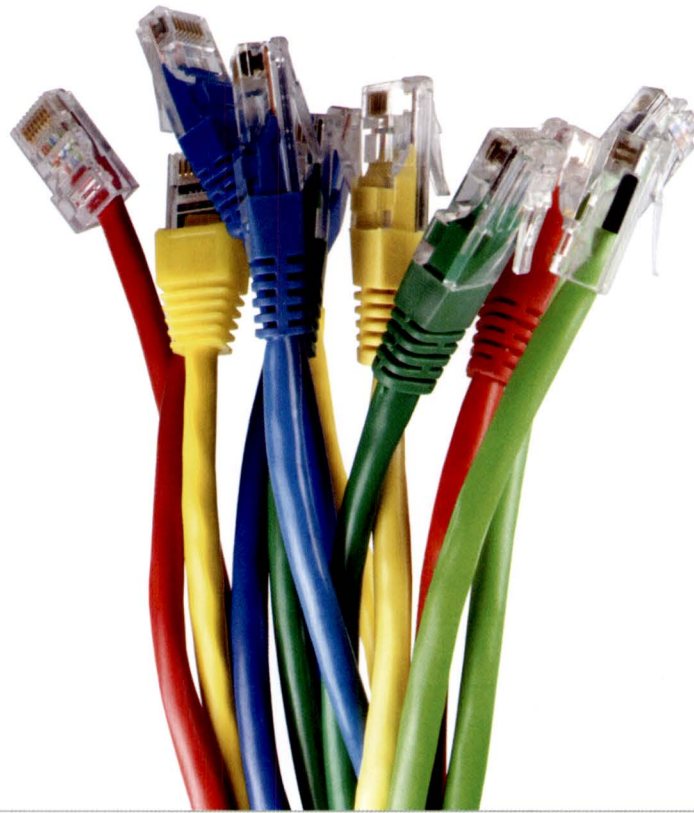
When China ceded Taiwan to Japan after the first Sino-Japanese War in 1895, Zheng’s legacy was refreshed once again. Well known in Japan because of his mother and a popular 18th-century Japanese play that portrayed him as a folk hero, Zheng became a symbol of the historical connection between Japan and Taiwan. “The new colonial regime used plays and textbook passages about Zheng to spread the message of patriotism and loyalty,” Rudolph says. “They painted Zheng’s brand of anti-imperialism as anti-Western and used his mixed heritage and loyalty to his emperor to claim his loyalty to the Japanese emperor.”

At the end of World War II, Japan withdrew from Taiwan just as China was in the midst of a civil war that ultimately resulted in the split between Communist China on the mainland and the ROC on Taiwan. The Nationalist Party on Taiwan resurrected the image of Zheng as a liberator. “It even referred to its leader, Chiang Kai-shek, as a modern-day Koxinga,” Rudolph says, “who would soon retake the mainland.”

Today, as Taiwan’s future hangs in the balance, leaders on both sides of the Strait of Taiwan understand the value of the story of Zheng Chenggong. Those dreaming of an independent nation hail him as the Father of Taiwan who brought Chinese civilization and culture to the island; a former vice president has even referred to Zheng as Taiwan’s Moses. Those hoping to unite Taiwan with the mainland portray him as a national hero who freed the island from foreign imperialists. In fact, on the island of Gulangyu in Fujian province, where Zheng planned his attack on the Dutch, the PRC has built a massive granite statue of him.

“It’s the largest stone statue of a historical figure in China,” Rudolph says, “including the major political figures of the 20th century, like Mao Zedong or Deng Xiaoping. The statue is indicative of the identity building that the PRC has actively engaged in during the current period: a rediscovering of history and the construction of alternative grassroots models of belonging for contested places like Taiwan.”

Like the tales of many legendary figures, those of Koxinga are far more grandiose than the real story of the brutal pirate who may have killed thousands in his quest to establish his own kingdom. “But,” says Rudolph, “the usefulness of Zheng Chenggong as a political icon will continue to outweigh the realities of the historical record.”



By Eric Goldscheider

## Uncensored Internet in China

Google Search

I'm Feeling **Un**lucky

**Within hours** of the announcement in Oslo last October that Chinese dissident Liu Xiaobo was the 2010 recipient of the Nobel Peace Prize, search engines in China stopped yielding responses for anything connected to the Nobel Prizes, according to Professor of Mechanical Engineering Yiming (Kevin) Rong. “Before the Peace Prize was announced, the Nobel Prizes were introduced for the sciences,” said Rong, ticking off physics, biology, and economics. “But once the Peace Prize was announced, everything about the Nobel Prizes was cut.”

The Chinese government is very sensitive about criticism and regards the awarding of the prize to the jailed literary critic who advocates for an end to one-party Communist rule in China as a slap in the face. That the government could largely succeed in cutting off an estimated 450 million Internet users from a slice of global communications immediately after

one of its domestic critics was thrust into the international limelight is illustrative of the complicated relationship between the drive for economic growth in China and the free flow of information.

The desire and the ability of Chinese authorities to filter search results has been a bone of contention between the government and Google, the world’s largest search engine. When Google launched its Chinese site in 2006, it faced a dilemma: the price of being granted permission to do business in China included having to agree to government censorship.

Jennifer Rudolph, associate professor of Asian history, has been observing the evolution of this relationship. Initially Google agreed to terms it found onerous because it didn’t want to risk missing out on establishing itself in the world’s largest Internet market. Google saw itself as a force for openness, said Rudolph, “it justified its entrance into China as

## There is a complicated relationship between the drive for economic growth in China and the free flow of information.

bringing a benefit to the Chinese and that censorship was the price it had to pay.”

The relationship soured in December 2009 when Google perceived that its servers were being hacked by the government, and last March Google announced that it would no longer filter search results. The company still has a presence in China, but its search portal directs users to its servers in Hong Kong, which are not subject to censorship.

Without Google, Chinese Internet users are not left to wander aimlessly in the ether. A homegrown search engine called Baidu is by far the most popular way to navigate the Internet in China. Rong, who divides his time between his post in Worcester and a job at Tsinghua University in Beijing, says that in terms of speed Baidu now surpasses Google because of the extra hurdles related to routing and service interruption that Google users must endure. That edge has enabled Baidu to increase its already dominant market share. Rong believes Baidu is less powerful than Google in terms of search results, but Baidu has a better grasp of the Chinese market and is therefore more likely to give surfers results they are looking for.

That is, unless they are looking for information tied to politically sensitive phrases such as “June 4, 1989,” “Tiananmen massacre,” or “Falun Gong.” (The last is the name of a banned religious movement.) As significantly, says Rong, Chinese Internet users don’t have access to popular social networking sites such as Facebook, Twitter, and YouTube. Again, there are Chinese equivalents of these sites.

They are wildly popular, but they are on the other side of what is often referred to as “The Great Firewall” that separates Chinese Internet users from the rest of the world.

At the start of the January uprising in Egypt, the Associated Press reported that Chinese microblogging sites based on the Twitter formula yielded this message to anyone searching the word Egypt: “According to relevant laws, regulations, and policies, the search results are not shown.”

Asked what he thinks would happen if Chinese authorities lifted all restrictions on Internet searches, Rong said, “It may have significant impact on government authority in the country.” He doesn’t hazard a guess on how long it would take for the current power structure to collapse, but he holds it unlikely that it would be a peaceful transition. Because of that, he said, as long as the government can deliver economic growth, there are significant parts of the population that support censorship as a legitimate tool for maintaining stability. He is not among them. “I’ve been here too long,” said Rong of his many years studying and living in the United States.

The dilemma facing the Chinese government, he said, is that trends in technology make it more and more difficult to limit the free flow of information in a society that wants to participate in global economic growth. The danger is that as people find out that they have been misled about the meaning and impact of important historical events, it will unleash anger that will be hard to contain.

“I know the problem,” said Rong, “but I don’t know the solution.” ■

By Susan Seligson

# CULTURE SHOCK

From the food (hot dogs—ugh) to the social gatherings (so loud!), Chinese students try hard to understand America and its customs.

**On a frigid** Sunday evening in February, Yao Zheng, an electrical engineering grad student from Beijing, escorts an American acquaintance to a WPI party kicking off a week of festivities to usher in the Year of the Rabbit. The Campus Center is all but deserted and eerily silent as Yao heads up the stairs and nudges open the double doors of the Odeum. There, at least 150 Chinese students sit at round tables drinking Coke and finishing the last bites of dinner from a copious Asian buffet.

"This is a real Chinese party," says Yao, who returned to China in August. "People just stay seated." He is happy at WPI but counts just two Americans among his friends. The school's many services for Chinese students, and international students in general, range from writing assistance to ESL tutoring to off-campus shopping tours. But nothing prepared Yao for the

divergent social styles of Americans and Chinese. Chinese prefer structured gatherings, communal cooking, and games to freewheeling encounters. As a pair of Chinese comedians banter before the quietly appreciative crowd, Yao speaks of a cultural gap that breeds neither animosity nor disapproval, just perpetual bemusement.

"What if you saw a girl you liked at another table—how would you approach her?" asks the visitor. "I wouldn't!" says the quick-witted, jovial Yao, who has a girlfriend in China and texts her at every opportunity. When he arrived at WPI, Yao was homesick and spent about \$2,000 a month calling China. He's settled in now, but still marvels at how, both at parties and in the classroom, Americans venture boldly where Chinese fear to tread.





An annual report by the Institute of International Education reported a 30 percent rise in the number of Chinese nationals studying in the United States last year. Chinese students attending U.S. colleges now number 128,000, or 18 percent, of 691,000 international students. In 2010, according to the report, China outranked India as the leading source of foreign students in this country.

WPI embodies that trend, with Chinese students making up 48 percent of the Institute's 730 international undergraduates and graduate students, who hail from 60 countries, according to Tom Thomsen, director of international students and scholars at WPI's International House. WPI has two thriving Chinese student organizations: the Chinese Student Association, composed of students from Taiwan and Hong

Kong as well as mainland China, and the Chinese Students and Scholars Association, a group of graduate students from mainland China.

"There's a national trend of colleges being inundated with applications from China," says Thomsen, whose staff helps foreign students settle in with three-day orientation workshops offering guidance with everything from the nuts and bolts of visas and permits for work and travel, to helping students cope with language barriers, dizzying academic options, and, perhaps most confounding, American ways.

"Culture shock comes in phases," explains Thomsen, whose counseling staff employs a YouTube clip from Columbia University (<http://www.youtube.com/watch?v=tPfb6GIjM9Q>). "At first it's all great, but after a few weeks students start



## Chinese students make up 48 percent of WPI's 730 international undergraduate and graduate students.

getting depressed, and miss the comfort and environment of their home country. There's a lot to get used to, so we introduce them to the community," which includes an outing to a shopping mall and a walk-through at Worcester's Super Wal-Mart. Though it's understandable that Chinese students will cling to the familiar by sticking together at first, "we encourage them little by little to branch out and meet some American students," he says.

If only it were that easy, laments Yuliang "Kevin" Sun, a graduate student in marketing. Yuliang is one of six Chinese students living off campus who gather at the Park Avenue restaurant Pho Dakao to discuss the trials and rewards of attending college a world away from home. For starters, that ubiquitous American greeting, "How are you?" had him stumped. "I didn't know how to answer," he recalls, as he digs into a meal of steamed fish, spring rolls, and caramelized pork. "In China you always try to give a real answer. I don't know how to keep up the conversation, and I don't know what American girls are interested in. I had to make American friends to improve my speaking, and when I invite them to a party they are pleased to come," he says. "But they're not interested in our games."

Topping these is a role-playing game called "Mafia Doctor" that has captivated the youth of mainland China, says undergraduate Yunwen Sun, 20, a math major.

"Americans go to a frat house to dance, drink, and talk about partying," says Yunwen. "We sit together and play games. Our definition of party is just friends sitting together." Yuliang, who'd returned from China just a day earlier, puts it succinctly: "It's like we're boring." Most of the students are products of China's one-child law, the single aspect of Chinese culture that seems to stir endless curiosity among the students' American peers. "My mother had six sisters and two brothers, but I'm used to being alone," says Yao. "I don't mind staying alone on Saturday night. I don't have the idea that I have to go somewhere." To bring Chinese together on the scale of the New Year's gathering can be, he observes, "a tough job."

For some Chinese, a shared passion can open the door to friendships with Americans that transcend the superficial. In the last year, the upbeat Yunwen began rooming with three Americans, fellow members of the women's crew team. Beyond their common sport, the students found common ground in something beloved by all—food. Under her tutelage they turn out Chinese feasts, says Yunwen, who is dating an American. But their preferred fare, the Szechuan specialty known as the hot pot, is still a tough sell, the students say. And the notion of dessert is quite un-Chinese. Those almond cookies that turn up as the coda to every Chinese meal here? "They don't exist in China," says Yunwen. Fortune cookies are also an American invention.

As the students polish off a platter of watercress with garlic sauce, they weigh in on a staple of American culture that horrifies them—the hot dog. "And if you try to eat the sausage without the roll it's just terrible," says Yao as the rest of the students wince. "When I first ate your salad I thought it was kind of weird," says Yuliang. "The sauce is sour, and in China we don't eat a lot of raw things. But there *is* something I really like—your clam chowder."

"Americans love our food," says Yuliang. "And my American friends are very kind, but I just don't know how

From left, front row: Chunyan Li, GS; Yunwen Sun '13; Xiaokong Yu, GS.  
Back row: Yao Zheng, GS; Zijian Xia '13; Yuliang Sun, GS.



to keep the friendships going.” All agree that one way to bridge the culture gap is through sports. Yuliang joined the tennis club. Yao was on the swim team in high school and swam every day in China as an undergraduate in Shanghai. In order to swim there, he had to make his case before the university administration. “Getting permission to swim was very official there,” he explains. “So when I came here I did it the same way, going to my advisor and telling him that I’m a good student and would like to swim. He said, ‘Just go put on your suit and jump in.’ In America people do sports for fun,” adds Yunwen. “But in China if you want to do sports, you have to be very serious.”

When it comes to American spectator sports, the students are perplexed. Football? “I just don’t understand it,” says Yunwen. “It’s kind of too physical,” adds Yuliang, whose idea of a gripping contest is the U.S. Open. Baseball? Kind of boring, the Chinese students agree, though Yunwen is drawn to the grace of basketball. Yuliang’s pro basketball education came when he was shouted down for wearing a Celtics shirt in Los Angeles, where he was visiting his two sisters.

The students share good-natured laughter as they chime in with random observations about American cultural quirks. All bespectacled, they wonder aloud why young Americans “barely wear glasses.” “Americans will always hold the door open for you,” says Yunwen, who comes from the city of Jinan in Shandong Province. “But in China there are so many people everywhere that doors are just kept open,” adds Xiaokong Yu, a shy graduate student majoring in civil engineering. “When I got here everything felt so empty,” she says. “Empty university, empty city.” Graduate student Chunyan Li, 23, who arrived here from Zhejiang Province in August to study operation design and leadership, was startled by how few people are out walking along Worcester’s roads. “In China, people are everywhere,” she says.

Rampant talk of Tiger Mothers notwithstanding, the Chinese students would like to dispel the myth that they are far more disciplined in their study habits than their American counterparts. At least at WPI, “The Americans work very hard. As hard as us,” says Yuliang. But Chinese tend to be early risers—not Americans’ strong suit. And they generally aren’t fond of alcohol, so hangovers are not an issue.

“In China all classes are in the daytime,” adds Yuliang. In class, at least for the first few months and despite professors’ efforts to be helpful and clear, Chinese might take all day to read a chapter that Americans consume in a few hours, says Yuliang. “My listening is not as good as my writing,” adds Zijian Xia, 19, who adds that it takes time to grow accustomed to speaking out in class. “In China we ask our questions after class,” says Zijian, a chemistry major who calls himself Donnie. Their professors are patient and helpful, add the students, and some, like Yuliang, get help from student volunteers at the writing center.

“The professors know what they’re doing,” says Yao. “They put you on the edge but they don’t push you off the cliff,” he adds, comparing graduate school to “slavery.” But he grins when he says it, and the students say they find more hands-on opportunities here than in China, particularly in the lab. “Students are more equal to professors in the lab here,” says Xiaokong, who is working toward a doctorate. “As a freshman I work in the biochemistry lab,” says Zijian. “In China, that’s impossible.”

While subtle cultural differences exist among the students, who come from different regions of their vast homeland, there is one obsession they inevitably share: how to call China, cheaply and often. From international calling cards to Skype, they are forever tweaking the formula after being nearly bankrupted that first difficult month far away from home. “I Skype three to four times a week now, but in the beginning I called my mother every day,” says Chunyan, who plans a visit home in May.

Yao tells a story of seeing a new arrival from China, a male graduate student, who felt so overwhelmed by the transition that he broke down sobbing. That was extremely unusual, says Yao. For his part, and for the students gathered this brisk evening, there are no regrets. “We’re having fun,” says Yunwen. “And we all are confident we can do this.” ■

Chinese prefer structured gatherings, communal cooking, and games to freewheeling encounters.

**Stay connected.** Material for Class Notes comes from newspaper and magazine clippings, press releases, and information supplied by alumni. Production schedules vary; please allow up to 6 months for your note to appear in print. We welcome your news by **Web: [wpi.edu/+Transformations](http://wpi.edu/+Transformations) Email: [alumni-editor@wpi.edu](mailto:alumni-editor@wpi.edu) Fax: 508-831-5820 Mail: Alumni Editor, Transformations, WPI, 100 Institute Road, Worcester, MA 01609-2280.**

**Irving Gerber '44**, owner of Fine Woodworkers of Boston, has retired. He and his wife, Shirley, celebrated their 65th wedding anniversary last year.



The family history of **Kim Woodbury '44** was on display at Gordon Library, in an exhibit called "120 Years of Fine Printing: The Story of Woodbury and Company." Kim was interviewed about the company's founding and the many generations of Woodburys at WPI. (See the video at [wpi.edu/+library](http://wpi.edu/+library)). The WPI community mourned the death of Kim's wife, Betty, who died Oct. 19, 2010.

**Daniel Lacedonia '46**, a 50-year resident of East Longmeadow, Mass., was chosen as grand marshal for the town's 2010 Fourth of July parade.

**Albert Soloway '48** offered a historical perspective on the chemistry curriculum at the U.S. Naval Academy in a letter to *Chemical & Engineering News*. At the height of World War II, Soloway placed second in the "plebe chemistry" class of 900, due to his superior chemistry background. With no other chemistry courses available at the academy, he elected to return to WPI to complete his BS degree.

**Michael Hoehstetter '53** teaches chemistry at Columbus State Community College in Ohio, where he has been an adjunct instructor for six years.

**Philip Simon '53** and his wife, Pat, live in Vista, Calif. He retired from IBM after 35 years, and spent 17 years as a professor of engineering and computer science at National University in San Diego.

**William Hills '54** blogs on topics from the BP oil spill to income taxes and immigration at [Op.EdNews.com](http://Op.EdNews.com). He is the retired president and founder of Hills R&D Inc.

**Walter Kirk '54** writes from West Palm Beach, Fla., "I am safely into my 87th year and all is well."

**Milton Meckler '54** has published several papers in collaboration with the University of Chicago and the Sustainable IT Ecosystems Lab at Hewlett-Packard Laboratories. His company, Design Build Systems (DBS), is commercializing components for a vapor recompression absorber that improves cooling system efficiency. Milt and his wife, Marlys, have been active in preserving the historic district of St. Petersburg, Fla., where they are homeowners in the former Huntington Hotel, built in the 1890s.

**John Hanks '55** is the author of *Boy P.O.W.* ([Blackrosewriting.com](http://Blackrosewriting.com)), based on his childhood years in the Philippines and the impact of World War II.

**Bob Stempel '55** was elected to the board of directors of Genesis Fluid Solutions Holdings.

**Alfred Barry '57** sold his manufacturing company, Stanlok Corp., to his son, **Al Barry '77**. He is now semi-retired and living in Worcester.

**Bob Galligan '57** came out of retirement to teach part time at Grand View College in Des Moines, Iowa.

**Joseph Bronzino '59** delivered a public lecture on the technological advances in biomedical engineering at the University of New Haven. He is Vernon Roosa Professor of Applied Science at Trinity College.

**Roger Kuenzel '59** plays banjo in the Irem Shrine String Band, providing entertainment for the Fourth of July and Memorial Day parades near the New York-Pennsylvania border. "People come from a 50-mile radius to see us," he writes.

**Richard Ronskavitz '59** retired 13 years ago after serving 20 years as director of the Broward County, Fla., Traffic Engineering Division. Prior to that, he held the same title for the city of Hartford, Conn. His wife, Louise, died in 2008, leaving their two sons. He now resides in Pompano Beach.

**Richard Davis '61** and his wife, Dorothy, retired after 10 years as innkeepers and owners of the Pedigri House in Ashland, Ore. "We now spend our winters in Cape Canaveral, Fla., and return to Ashland each summer to volunteer with the Oregon Shakespeare Festival," he writes. "During tax season, I volunteer with the AARP helping prepare returns."

**Jesse Erlich '62** was named in the 2011 edition of *Best Lawyers*®. He is a partner at Burns & Levinson LLP.

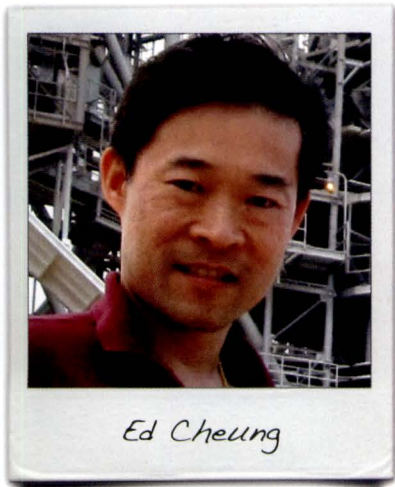
**Ed Scherer '63** retired from an executive post with Southern California Edison and relocated to Boynton Beach, Fla., to be near his family.

**Phil Baker '65** is COO of Axion Power International, a Delaware company that is developing advanced lead-carbon batteries and energy-storage technology.

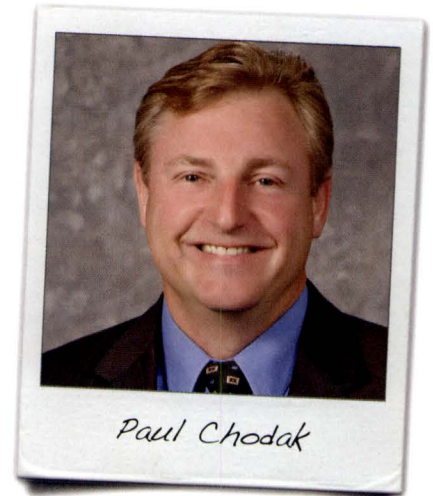
**Hutch Wyman '65** lives in Georgia and has been retired since 2006. "Two grandchildren keep Sue and me busy," he writes. "I'm also a member of the Stone Mountain Barbershop Chorus." Hutch is the brother of **Jon Wyman '75**, and son of the late **Bill Wyman '35**.

After working for GE, Cooper Power Systems, and Square D, **Phil Hopkinson '66** formed his own power transformer consulting business, HVOLT Inc., in 2001. A registered PE in North Carolina, he holds 15 patents, has authored numerous papers, and is an IEEE life fellow.

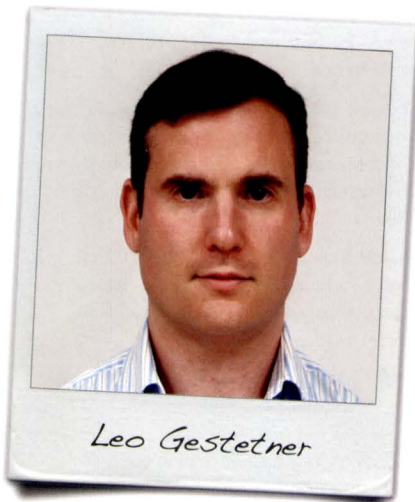
**John Lauterbach '66** was appointed to the U.S. FDA Tobacco Products Scientific Advisory Committee. His company, Lauterbach & Assoc. LLC, based in Macon, Ga., provides consulting services worldwide on the chemistry and toxicology of tobacco, tobacco products, and tobacco smoke. He has presented papers at the American Chemical Society's national meeting in Boston, the CORESTA congress in Edinburgh, Scotland, and the Tobacco Science Research Conference in Hilton Head, N.C. His 12-year-old son, Sebastian, a budding scientist and engineer, serves as junior librarian and junior toxicologist for the company.



*Ed Cheung*



*Paul Chodak*



*Leo Gestetner*



*Jiong Ma*



*Karen Padir*

## **Robert H. Goddard Award for Outstanding Professional Achievement**

**Edward Cheung '85** was recognized for his work as the principal engineer for NASA's Hubble Space Telescope Project.

**Paul Chodak III '85** was recognized for his work in the energy industry, currently as president and chief operating officer of AEP's Indiana Michigan Power.

## **Ichabod Washburn Young Alumni Award for Outstanding Professional Achievement**

**Leo Gestetner '95** was honored for his record of innovation and entrepreneurship, currently as the founder of Heath Capital, based in Los Angeles.

**Jiong Ma '90/MS** was honored for her impressive career in venture capital, currently as a partner at Braemar Energy Ventures in Boston.

## **John Boynton Young Alumni Award for Service to WPI**

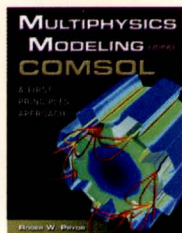
**Karen Tegan Padir '90, '95/MBA** was recognized for her outstanding commitment to WPI as a trustee and for bringing pride to her alma mater through her remarkable career in information technology.

# Bookshelf

Recent and new publications by WPI alumni, faculty, staff

## Multiphysics Modeling Using COMSOL®: A First Principles Approach

by Roger Pryor '68 Jones & Bartlett Learning



Pryor offers a hands-on introduction to the art and science of computerized modeling for physical systems and devices. The guidebook uses a step-by-step methodology with practice models that readers can build and run. The examples are linked to the fundamental laws of physics, using a first principles analysis approach. A supplemental DVD is included, with reference documents and executable copies of the models discussed in the book. Pryor, a COMSOL certified consultant, is vice president of research for Pryor Knowledge Systems Inc..

## Chouette and More: The World's First and Only Backgammon Sci-fi Soap Opera (Book on CD)

by Mary Hickey '77 GammonVillage

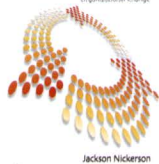


Two-time champion of the U.S. Backgammon Open Mary Hickey has compiled all 44 installments of the monthly column she wrote for GammonVillage.com until 2007. Starting with the basic principles of chouette (a backgammon variation for rotating teams of three or more players), her commentaries progress to strategy and psychology. Starting in Chapter 11, the reader becomes part of an ongoing plotline that involves eccentric opponents, exotic locales, and a time warp. Hickey has numerous tournament victories to her credit.

## Leading Change in a Web 2.1 World: How ChangeCasting Builds Trust, Creates Understanding, and Accelerates Organizational Change

by Jackson Nickerson '84 Brookings Institution Press

Leading Change  
Web 2.1 World  
How ChangeCasting Builds Trust,  
Creates Understanding, and Accelerates  
Organizational Change



Jackson Nickerson

"ChangeCasting" is Nickerson's term for leveraging Web 2.0 technology to unlock and accelerate change within an organization. His book outlines a new combination of leadership processes and guidelines, drawing examples from Fortune 1000 firms and Barack Obama's 2008 presidential campaign. Nickerson is Frahm Family Professor of Organization and Strategy at Washington University Olin Business School, and Senior Scholar, Governance Studies, at the Brookings Institution. He also serves as director of Brookings Executive Education, a partnership between the university and the institution.

## The Participatory Museum

by Nina Simon '03 CreateSpace



Web 2.0 is more than a buzzword, argues Simon, principal of Museum 2.0, a design consultancy that helps cultural institutions create participatory, dynamic, audience-centered programs. The same "architecture of participation" that encourages us to generate, share, and curate content online can be brought to museums, libraries, and other public venues, transforming visitors from passive viewers to active contributors who help shape and enhance the experience. Simon describes the principals and practicalities of participation, and offers entry points for the bold and the cautious to embrace the possibilities for transformation. The book is available for purchase as a paperback or a PDF download, and a complete, free version is viewable online at her website, [participatorymuseum.org](http://participatorymuseum.org).

**Don Nitsche '66** writes, "After a career as a pension actuary, I retired from Mass Mutual in May 2009. Nancy and I have been married for 40 years (we met in my junior year at Tech). Our son lives in Las Vegas, and we visit our three grandchildren out there as much as possible. Our daughter teaches math in a public school system near Boston."

**Eugene Wilusz '66**, an authority on chemical and biological protective clothing, works at the U.S. Army Natick (Mass.) Soldier Research, Development and Engineering Center. His book, *Military Textiles*, (Woodhead Publishing) reviews recent research in areas such as damage resistance, comfort, camouflage, and flame protection.

**Curt Carlson '67** was appointed to the National Advisory Council on Innovation and Entrepreneurship to support President Obama's drive to develop policies that foster entrepreneurship and create economic growth by bringing new ideas to the marketplace.

After working for MIT's Draper and Lincoln laboratories, **Robert Kennedy '67** has a second career as a professor of business and technology at Massasoit Community College.

**Lester Small '67** retired in July 2010, after 42 years with the U.S. Air Force Research Lab at Wright-Patterson AFB.

2010 Kalenian Award winner **Rich Sadowski '68** has invented a concentrating photovoltaic (CVP) system that can quadruple the output of commercially available solar roof panels. His Solar Joules "plug and play" modules, built from recycled automobile parts, reflect photons onto roof panels and track the path of the sun. A WPI MBA project team is evaluating commercialization routes.



**Tony Leketa '69**

was appointed president of Parsons Water & Infrastructure Inc. in Pasadena, Calif. He has been working in the firm's federal government group since 2005.

**Ed Mierzejewski '69** retired as director of the University of South Florida Center for Urban Transportation Research and joined the Tampa office of Gannett Fleming Inc. as director of transportation research. He and his wife, Aline, celebrated their 40th anniversary last year with a three-week trip to Italy.



**Bill Hillner '70** is working in Nakhodka, Russia, as senior construction manager of a large offshore production project for ExxonMobil. In his 34 years with the company, he has had several assignments in Europe, as well as Thailand, Qatar, Angola, Nigeria, and various U.S. locations, including Alaska.

**Phil Warren '70** and his wife, Tammy, were married in 2008 and recently moved into a new home in Crestwood, Ky. Phil is vice president of Papercone Corp., a producer of specialty envelopes.

**Paul Cleary '71** was reappointed U.S. magistrate judge for the federal court in Tulsa, Okla. His three children are working toward graduate/undergraduate degrees.

**Mike Ingemi '72** is a senior staff electrical engineer at APC-MGE. He lives in Norwood, Mass.

**Bruce Beverly '73** retired from Haley & Aldrich Inc. in May 2010. After celebrating with a cross-country motorcycle ride, he started Beverly Management Consulting in Auburn, Mass.

Urban Engineering, the firm of **Edward D'Alba '73**, celebrated its 50th anniversary in 2010 and earned ranking in Philadelphia's Top Workplaces.

**John Goulet '73** returned to WPI in 1993 to join the Mathematical Sciences faculty. He teaches undergraduate calculus and linear algebra. "I'm in charge of the Master of Mathematics for Educators (MME) program," he writes, "as well as an undergraduate teacher preparation program."



**Roger Lavallee '73** was appointed senior program manager, enrollment management and marketing, at the Hartford campus of RPI. His responsibilities include interfacing with key executives in Fortune 1000 companies to identify corporate leaders for career development and enrollment at Rensselaer.

**David Demers '74** ('84 MS FPE) was appointed to the NFPA Standards Council. For the past 27 years, Dave has been a member of the Massachusetts Board of Fire Prevention Regulations, serving as chairman for the past seven years.

**Bob Lindberg '74** has served as president of the National Institute of Aerospace since 2004. Last year he was elected president of the board of directors of the Virginia Air & Space Center.



**Stephen Page '74**, a founding shareholder of Page, Mrachek, Fitzgerald & Rose, was named in the Intellectual Property and Commercial Litigation categories in

*The Best Lawyers in America 2011*. His Florida practice includes pharmaceutical companies, athletic corporations, and healthcare organizations.

**Vicki Cowart '75** received the 2010 Ian Campbell Medal for Superlative Service to Geosciences from the American Geological Society. The former state geologist for Colorado, she helped found the Association for Women Geoscientists and was the first woman president of the Association for American State Geologists. She is president and CEO of Planned Parenthood of the Rocky Mountains.

**Wilson "Bill" Dobson '75** retired from Binary Engineering Assoc., the consulting firm he founded in 1984. He writes that he does not plan to give up engineering altogether. "I will put my engineering and scientific knowledge to use in assisting in the defense of indigent individuals being crushed under the jackboot of the state criminal justice system."

**Robert Horner '75** was appointed director of public policy for the Illuminating Engineering Society.

**William Jagoda '75** earned his commercial pilot certificate. He lives in Groton, Conn., and works for Electric Boat.



**Judy Nitsch '75** received an honorary doctorate from Massachusetts Maritime Academy for her contributions to engineering and her efforts to encourage others to pursue engineering careers.

**Oliver Smith '75** has been in medical product design for more than 30 years, focusing on non-invasive ventilation devices. He works for Philips Healthcare in Carlsbad, Calif.

**Jon Wyman '75** lives on Wyman Pond, in Westminster, Mass., and works for IAP Worldwide Services at Hanscom AFB. He has five grandchildren in Massachusetts and Hawaii.

**Terry Cirone '76** was appointed vice president of health, environment, safety, and security of The Chlorine Institute.

**Jim Hall '76** joined Leerink Swann as a managing director in the Strategic Advisory and Consulting Group.

**Jonathan Rourke '76** is CEO of Viacor in Wilmington, Mass.

**Neal Wright '76** is a vice president in the Virginia Beach office of Dewberry, where he leads the Department of Defense market segment.

**George Keeler '77** is pastor of the North Springfield Baptist Church in Vermont. He and his wife, Fran, have two children.

Congratulations to **John Osowski '77**, who was elected Civil Engineer of the Year by the Rochester Section of ASCE. He is director of planning/construction at The College at Brockport, part of the State University of New York system.

**Jeffrey Tingle '77**, featured in the Summer 2010 issue of *Transformations*, is now vice president of software development for PolyRemedy.

**Peter Rowden '78** was promoted to vice president, corporate manufacturing operations, at Hologic Inc. He was recently elected to a second term as a Becker College trustee.



**Bill Walton '78** was recognized as 2010 Civil Engineer of the Year by the ASCE Illinois Section. He works for GEI Consultants, Midwest Region.

**Ernie Cormier '81** was appointed president and CEO at Nexage.

**Ted Nevells '81** joined the project management team of RF Walsh Collaborative Partners in Boston.

**Frank Polito '81** was named Citizen of the Year by the Atkinson (N.H.) Lions Club. He recently stepped down from his role as town moderator and chairman of the Zoning Board of Adjustment after 18 years on the board. His son, David, is a junior at WPI.

**David Gillespie '82** is CEO of Aleut Corp.

**Stephen Kaneb '82** was elected a trustee of The Catholic University of America. He and his wife, **Andrea (Fielding) '84**, live in South Hampton, N.H., with their five children. They return to WPI for a football game each year.



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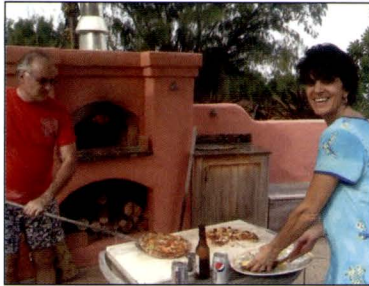
# CAREER CORNER

By Connie Horwitz, Associate Director, Career Development Center

**Deborah Chichlowski Luszey '82** teaches math in Hudson, N.H. She attended the National Council of Teachers of Mathematics Affiliate Leaders Conference in Reston, Va., last summer.

**John Sansoucy '82** joined Blackstone Management & Consulting as head of the Lean Manufacturing Practice. He lives in Douglas, Mass., with his wife, Patricia.

**Mark Scott '83** continues at Sikorsky Aircraft, where he is now technical lead for rotor systems. His homebuilt four-place airplane project is nearing completion. Mark's eldest son, Erik, is a member of the WPI Class of 2014.



**Jean (Salek) Camp '84** writes from Hawaii, "David and I have been living on Kaua'i for about 10 years and still love it. My project management consulting work has slowed down, which is giving me more time to enjoy recreational outrigger paddling in Hanalei and eating pizza made in our outdoor wood-fired brick oven. Traveling to visit family and friends is a welcome escape."

**Robert Trocki '84** was promoted to senior director of actuarial pricing at Fallon Community Health Plan in Worcester. He lives in Shrewsbury with his wife, Cindy, and three children.

## 1985



**Ed Cheung**, a native of Aruba and a subject of the Kingdom of the Netherlands, was knighted by Queen Beatrix in June 2010. He received the *Orde van de Nederlandse Leeuw* (Order of the Netherlands Lion),

the Kingdom's highest civilian honor, for his work on the Hubble Space Telescope and his efforts to motivate and inspire interest in science and education among island youth in his homeland. Sir Cheung is the first Caribbean-born citizen to receive the honor.

**Paul Chodak** recently transitioned to Indiana Michigan Power as president and COO.

**Dave LaBranche** joined the federal civil service in 2008 for a five-year appointment as a Highly Qualified Expert (HQE). "I expect to take a permanent civilian position this year, if all goes well," he writes. "I am an executive in the Department of Defense, working on geospatial technology policy and business enterprise integration."

## Your Career Strategy on a Global Scale



How many of us could have imagined when we were students that our professional work might entail developing a routine comfort level communicating with people from countries

other than our own? Perhaps the communications are direct, with members of your team. Perhaps it's participating in conference calls that now include an overseas connection. Perhaps you are communicating with foreign vendors that provide services and products to your organization. Regardless, the world of your job, your career, your industry has no doubt stepped outside the boundaries of the United States in some fashion. The odds that this trend will stop and revert to a more insular past are probably slim to none. And the likelihood that people will continue to see changes in their job descriptions is going to increase as the ability to understand global business becomes more critical to succeeding in one's role. So, what does this ultimately mean for everyone?

The adage "The best defense is a good offense" may truly apply here. Rather than wearing blinders that support the hope of a short-term trend, building a career plan that incorporates the possibility of some globally driven impact affecting your work is smart and practical. Looking at your industry's trends toward global business relations can help you identify where your skills, aptitudes, and strengths fit in the picture. Ask yourself what you lack in meeting the requirements of a role that may demand more comfort with international communications. Seek opportunities to help you acquire the necessary skills; for example, participating on international calls, traveling for an overseas project, or researching international vendors. If you are part of a small business, applying this strategy to your business as a whole may help lead your company to even more profitable survival in the global arena.

So, as you contemplate the wisdom of career planning for a global future, consider your readiness for this—with WPI educating students from more than 70 countries outside the United States, you may soon be communicating on an international call. From your desk. With a WPI alum.

Contact Connie at [cdcalumni@wpi.edu](mailto:cdcalumni@wpi.edu)

## HIRE WPI

Hire a WPI alumnus, new graduate, or student and you'll gain someone who is globally minded, collaborative, innovative, ready to contribute from Day One...

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**Christopher Papile** was inducted into the Academic Hall of Fame at Archbishop Williams High School in Braintree, Mass. He is a chemical engineer and the chief technology officer at Catalyte LLC, a clean energy consulting firm.

**Jo Anne Shatkin** is CEO of CLF Ventures, the nonprofit consulting affiliate of the Conservation Law Foundation. She previously served as managing director.

## 1986

**Barry C. Fougere** joined BigBelly Solar as chief operating officer.



**John Jezowski** is senior vice president and relationship manager at Webster Financial Advisors, based in the firm's Hartford, Conn., office.

## 1987



**Brian Teague** formed Patent Law of Virginia PLLC, a Richmond-based national firm that represents institutional and individual clients.

**Michael Thompson** is North East Region sales manager at Kammann USA.

## 1988



**Daniel Barry** (left, with NASA Astronaut Greg Johnson) was awarded NASA's Silver Snoopy, a special honor that recognizes outstanding

achievements related to human flight safety and/or mission success. The award is presented personally by NASA astronauts. In his 22 years with David Clark Co. in Worcester, Barry has made innumerable contributions to the design, development, qualification, manufacture, and operational support of astronaut protective equipment. He currently serves as vice president and director of research and development.

**Allen Bonde** writes, "I am a co-founder and CMO of social marketing software start-up Offerpop, based in NYC (I'm still outside Boston). We launched in June 2010. I'm always happy to hear from alums in the Internet or consulting biz."

**Carleen Maitland** is on leave from her position as associate professor of information sciences and technology at Penn State to serve as a program manager in the Office of International Science and Engineering at the U.S. National Science Foundation in Arlington, Va. She manages grants to foster research collaboration between U.S. and Middle Eastern scientists and engineers.

## 1989

**Linwood Bradford** was promoted to president and CEO of Conning & Company.

## 1990

**Paul Dombrowski** received the Morgan Operational Solutions Award from the Water Environment Federation (WEF), an international technical and educational water-quality organization. He works for Woodard & Curran.

**Karen Tegan Padir** joined EnterpriseDB as vice president of products and marketing.



**Mark your calendars now!**  
Activities are open to *all* alumni.

Classes celebrating anniversary years:  
1936, 1941, 1946, 1951, 1956,  
1961, 1966, 1971, 1976, 1981

### Thursday, June 2

- > Annual Alumni Golf Tournament, Stow Acres Country Club

### Friday, June 3

- > WPI Impact: Words from the Provost
- > Alumni College Sessions
- > Campus Fair
- > Alden Society Luncheon
- > New England Clambake, 1962-2011
- > 50-Year Associates Reception and Dinner (Classes of 1961 and earlier)
- > Casino Night

### Saturday, June 4

- > A Conversation with President Berkey
- > Alumni College Sessions
- > Reunion Parade

### Sunday, June 5

- > Jazz Brunch
- > Class of 1961 Remembrance Event

**Please remember to update your email address at [alumniconnect.wpi.edu](http://alumniconnect.wpi.edu) or contact us for assistance.**

## WPI Alumni & Reunion Weekend

JUNE 2-5, 2011

CHECK YOUR MAIL SOON FOR COMPLETE REGISTRATION INFORMATION.

**Questions?** Please call the WPI Alumni Relations Office at **508-831-5600** or log on to [alumni.wpi.edu/alumniweekend](http://alumni.wpi.edu/alumniweekend).

## From the Alumni Association President...



I'm happy to share with you an update from the Alumni Association and the Office of Alumni Relations on activities in 2010, and highlights of exciting events planned for 2011.

### Homecoming Recognition Awards — and Honoring Tuna

The Alumni Association honored five alumni at Homecoming (see page 35). They join those who were recognized at Reunion for

their professional achievement and their service to WPI.

Following the Rope Pull, about 200 students, alumni, and friends gathered to honor Bill "Tuna" Trask as he received the first-ever Alumni Association Distinguished Service Award.

Sharing reminiscences about Bill's impact on their lives and careers were Tom Driscoll '11, Bill Cunningham '77, Steve Rubin '74, Janet Richardson, and Mary "Ma" Fell. State Senator Karen Spilka (who's married to Joel Loitherstein '73) presented Bill with a proclamation from the Commonwealth recognizing his contributions to the WPI community.

In conjunction with this event, the Alumni Association hosted an online auction where many alumni donated and purchased items in support of the WPI Alumni Association Scholarship Fund. Net proceeds from the event to honor Bill and the online auction totaled \$11,000, which will be used for student scholarships.

The Alumni Association plans to host another online auction in conjunction with Homecoming 2011 to raise money for the scholarship fund. If you'd like to donate to or assist with the auction, contact Aubrey Valley, associate director of alumni relations, at [avalley@wpi.edu](mailto:avalley@wpi.edu).

### Class Ambassadors

In partnership with the Office of Alumni Relations, the Alumni Association will be rolling out a Class Ambassador program. We are looking for alumni interested in supporting their classes in this role. Many of you already serve as members of your class leadership and reunion committees or were part of the former Class Board of Directors, and we hope you will continue in

your role as part of the Class Ambassador program. For those not yet involved, this is a great opportunity to give back and to connect with your classmates. Additional details will be published in *The Bridge* and future issues of *Transformations*.

### Alumni Global Engagement (AGE)

The AGE initiative focuses on building connections with alumni who do not have the luxury of returning to campus for events. This program will expand the efforts of the successful Regional Clubs program and will include technology solutions and various communication methods to build connections among alumni and with WPI. More info is forthcoming.

### Additional Involvement

Another way to become involved with and support WPI is the **STAR Mentoring** program—an effort that matches alumni with students interested in benefiting from the professional and life experience of alumni. No matter where you live, you may participate; contact Connie Horowitz, associate director of the Career Development Center, at [chorowitz@wpi.edu](mailto:chorowitz@wpi.edu).

Thinking of traveling outside the United States soon? The **Alumni Association Travel** program invites you to join fellow alumni and visit a WPI Project Center. The Alumni Association has partnered with Collette Vacations to offer several trips to exciting locations where WPI has project centers. Find out more about this travel package at [www.wpi.edu/+alumnitravel](http://www.wpi.edu/+alumnitravel). By participating in this program, you will support a major initiative of the Alumni Association—providing scholarships to students. Ten percent of every trip booked goes to the Alumni Association scholarship fund.

In closing, I ask that each of you consider getting more involved—whether by STAR Mentoring or the travel program, by attending an event in your local area, or by returning to campus for Homecoming or Reunion. I am confident you will have a fantastic time! Write to me at [joyce.kline@alum.wpi.edu](mailto:joyce.kline@alum.wpi.edu) to discuss ways to become involved.

Regards,

Joyce S. Kline '87

**Patrick Welge** is president of EMCO Maier Corp. in Columbus, Ohio. "EMCO is one of Europe's premier machine tool builders, and the Columbus location is our North American headquarters," he writes.

## 1991

**Gudmundur Gudmundsson** (MS) is vice president of science and technology at Kerecis, based in the company's Reykjavik, Iceland, office.

**Edward Hunt** qualified as a Certified Insolvency and Restructuring Advisor (CIRA). He is principal of Hunt Service Solutions in Fort Lauderdale, Fla.

**Susan (Chilvers) Jones** is manager of business analysis at the Association of American Medical Colleges in Washington, D.C. She, her husband, Keith, and their son Parker are thrilled to announce the birth of their second son, Mason Keith, on March 30, 2010, in Annapolis, Md.

Coast Guard Rear Adm. **Roy Nash** is deputy federal on-scene coordinator for the U.S. Government's response to the Deepwater Horizon oil spill in the Gulf of Mexico.

**Megan** (formerly Michael) **Wallent** is a manager in the GFS Manageability Services Group at Microsoft. She discussed the workplace aspects of her transition from male to female in a *Harvard Business Review* article called "Changing Gender on the Job."



**Ed Connor '92**, dean of admissions at WPI, recently moved to Stow, Mass., with his wife, Jen, (former assistant director of alumni relations at WPI), and their son, Sean, who'll turn 3 in May. At a summer gathering hosted by Ed and Jen for WPI buddies and their families are, clockwise from back row, **Sue (Moser) Roberts**, **Ed Connor**, **Jim Uzdawin**, **Tony Chiulli**, **Mike Bristol '93**, **Bruce Yurczak '93**, **Michelle Thackston '93**, **Mike Thibodeau '93**, **Dan Eaton '93**, and **Lou Roberts**. "It had been quite a while since we had seen some of our friends, and a good time was had by all," says Ed. "At one point we counted 21 people in the pool!"

## 1993

**Alfred Grasso** (MS CS) was elected vice chair of the board of AFCEA International (Armed Forces Communications and Electronics Associates).

**Jon Larrabee** works for Kocheck Co. as a design engineer for turf and irrigation products.



**Sam Tetlow** was recruited to the role of chief business officer for Integrated Laboratory Systems, of Research Triangle Park, N.C. He and his wife, Laura,

reside in Raleigh.

**Jim White** is campaigning to bring w00stock—a variety show that bills itself as "3 hours of geeks + music" to Worcester. "I still live in the area, and it's high time Worcester was recognized as a geek city in its own right," he says.

## 1994

**Sandor Becz** was named head of global engineering for Lenze SE, a worldwide manufacturer of electronic and electromagnetic products for the automation industry. He lives in Tolland, Conn., with his wife, Michelle, and sons, Connor and Spencer.

**Ted Dysart** was recognized by the 2010 NACD Directorship 100 for recruiters.

**Stephen Foskett** is director of data practice for Contoural Inc.

**Dena (Niedzwiecki) Mechoso** and her husband, Diego, proudly announce the birth of their second daughter, Alina Mia, born May 7, 2010, in Pasadena, Calif. Her big sister, Ella, just loves having a baby sister.

## 1995

**Christopher Dyl** is chief technology officer at Turbine Inc., which was acquired by Warner Bros. last year. He also serves on WPI's IMGD Advisory Board.

**Jason Frost** completed his internal medicine residency at St. Vincent Hospital in Worcester and joined his wife in Philadelphia. In July he will begin a two-year Critical Care Fellowship at Brown University.

**Eric Pearson** was named vice president at Enterprise Bank in Lowell.

**Paul Seppanen**, president of Energy Maintenance Service LLC, was a keynote speaker at the CEE Department's senior banquet in April. He also delivered a lecture for the WPI community on wind farm development and construction.

## 1996

**Jenn (Healy) and Mark Anderson '95** welcomed their third child, Lucas James, on July 17, 2009. Mark is a senior fire protection engineer at Vermont Yankee. Jenn serves as the Risk Assurance HR leader at PricewaterhouseCoopers. They live in Chesterfield, N.H.

**Eric Maynard** works for Jenike & Johanson as a senior engineering consultant.

**Jesse Parent** is still touring, performing with JoKyr and Jesster, and teaching improv comedy. He has also branched out into performance poetry and hopes to compete in the National Poetry Slam in Boston next summer. He works for Sorenson Media in Salt Lake City.

**Joe Schaffer** founded an engineering and sustainability consultancy called Green Environmental Associates LLC ([www.greenasc.com](http://www.greenasc.com)) with two partners. The new cross-disciplinary firm is based in the NYC metro area but services clients globally.

**Rebecca (Rubenstein) Sgambati** is operations complex manager for the Valero Energy Corp.'s Benicia (Calif.) Refinery. She and her husband, David, have two children.

**Sean Squire** is Naval Undersea Warfare Center (NUWC) technical advisor to the Commander of Pacific Submarine Forces (COMSUBPAC) at Pearl Harbor, Hawaii.

## 1997



**Rebecca (Prince) Byrne** was diagnosed with invasive breast cancer just 13 weeks into her first pregnancy. She chronicles her journey and celebrates

the joyous birth of her daughter, Emelia Giovanna, in July 2010, in her blog, *My Boob and My Baby*. \* Many WPI alumni supported her 2010 "Run, Walk or Crawl" 5k fundraiser, which brought in more than \$16,000 for the Dana Farber Cancer Institute. For the 2011 race date, watch her website, [wontlaydown2cancer.com](http://wontlaydown2cancer.com). \*[myboobandmybaby.blogspot.com](http://myboobandmybaby.blogspot.com)

**Jim Goss** is vice president of operations for Photobucket.

**Brent Modzelewski** received the 2009 Medical Design Gold Award for Excellence in Design for his TRUE2go blood glucose meter. He is director of engineering for Home Diagnostics Inc. in Fort Lauderdale, Fla.

**Steph Torrey** and her husband, John Yuk, joyfully announce the birth of their first son, Elijah Mathew, on March 2, 2010. "All are doing well!" she writes.

## 1998

**Michelle (Prudente) and Bill Lucas** welcomed the addition of Rachel Elizabeth to their family on Oct. 19, 2009. "Her big brother, Anthony, adores her," Michelle writes. They live in Quakertown, Pa.

# In the Public Eye

U.S. Rep. **Todd Akin '70** (R-MO) was re-elected in 2010 with 67.9% of the vote. A member of the House Armed Services Committee, he was quoted in the **Wall Street Journal** in support of the Marine Corp's Expeditionary Fighting Vehicle (EFV) amphibious armored tank ● **Planet Green Network's** "Dean of Invention" series, starring **Dean Kamen '73**, premiered last fall with eight episodes on cutting-edge technologies from microbots to organ regeneration ● **David Gewirtz '82** appeared on a **History Channel** special called "The President's Book of Secrets" to discuss the security of White House email and messaging technology ● Professor **Helen Vassallo '82** (MBA) was credited with breaking down barriers for women in recent profiles in **Worcester Business Journal** and the **Telegram & Gazette**. She joined the WPI faculty in 1967 as one of two female professors ● **Mark Macaulay '89** appeared on **Renovation Nation** with Steve Thomas to install a natural-gas Freewatt hydronic system. Mark is director of product engineering for Climate Energy LCC, a joint venture of ECR International and Yankee Scientific ● **Matt Beaton '01** has been in the spotlight with his election to the **Massachusetts House of Representatives** in the 11th Worcester district, and a "This New House" episode filmed at his passive solar home in Shrewsbury. "This is a Prius," he told the *Worcester Telegram & Gazette*. "All the other houses around here are pickup trucks." ● **Foursquare** co-founder **Naveen Selvadurai '02** appeared in a **Gap** advertising video and Facebook campaign that featured celebrities raising money for their favorite charities ● The **Boston Herald** ran a story about Neuron Robotics' co-founders **Bob Breznak '08** and **Kevin Harrington '08** ● 1st Lt. **Andrew McCarthy '08** appeared in the **New York Times** online video "A Year at War," which followed the First Battalion, 87th Infantry of the 10th Mountain Division during the surge in Afghanistan ● **NASA TV** posted a launch-time video interview with **Patrick Renaud '08**, the Orbit 3 ISS pointing officer for the International Space Station flight control team ● **Nick Pelletier '09** was quoted in a **Telegram & Gazette** story on the 75th anniversary of the Phi Kappa Theta house and his role in re-opening the WPI chapter.

**Jeevan Ramapriya** works in the Boston Statehouse as deputy chief of staff in the office of Senator Steven A. Baddour (D-Methuen).

## 1999

**Charlie Atencio** graduated from MIT in June 2010 with a master of science (SM) in engineering and management.

**Matthew Ducey** and **Jennifer Shemowat '00** were married Oct. 10, 2009. He is a software engineer at Network Engines. She works for Fay, Spofford & Thorndike.

**John Lehane** was promoted to project manager at Consigli Construction Co.

## 2000



**Greg Jutkiewicz** was co-producer and lighting designer for a Boston production of Harold Pinter's *Betrayal* last spring. Active in the Boston theatre scene, he established the Factory Theater in 2007 to specialize in small, intimate theatre productions.

**Alida Tei** joined Winkenwerder Co. as a senior consultant for financial services and information technology.

**Matt Young** has been with Microsoft since graduation, including two years at the European Microsoft Innovation Center. He returned to WPI to offer a CS lecture on Microsoft Application Virtualization (App-V).

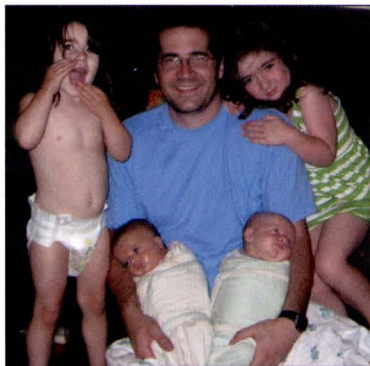
## 2001

**Kellie (Martin)** and **Brian Bresnahan '98** welcomed their second daughter, Piper Genevieve, on June 17, 2010. She joins big sister, Claire.

**William McManus** (MS FPE) received the 2010 Thomas Carroll Outstanding Teacher Award from Roger Williams University's School of Continuing Studies. "I'm an RWU alum from 1982, and I've been an adjunct faculty member since 2002 and an academic advisor since 2004," he writes. "It's a great feeling to give back to RWU and to help our students."

## 2002

**Curtis Britton** joined FARS Realty Group. A resident of Medford, Mass., he focuses on residential sales and rentals in Suffolk and Middlesex counties.



**Marc** and **Meghan (Fraizer) Cryan** announce the birth of their third and fourth children. Twins Hazel and Jack arrived on

May 11, 2010, totaling almost 14 pounds of baby. Big sisters Emma, 4, and Molly, 2, are very proud of their new siblings.

**Kelly Jaramillo** celebrated the completion of the first solar thermal system at Kirtland Air Force Base. "It all started at WPI, with my MQP on fuel cells," she writes. "Eight years ago I found my love for the idea of renewable energy. During my Air Force service, I tried long and hard to maneuver my way into working on energy issues. Then, while working in the private sector with Weston Solutions Inc., I teamed with 310 Solar in Albuquerque to win the contract for the Kirtland project, a solar collector and heat exchange system for the base's indoor Olympic-size swimming pool. Now I've come full circle; I'm back in the Air Force as a civilian engineer, with something real on the ground. I couldn't be happier, knowing I played a small part in launching a renewable energy project in my home state of New Mexico!"

Foursquare co-founder **Naveen Selvadurai** was one of *Inc.* magazine's Coolest Young Entrepreneurs and *Fast Company's* Most Creative People for 2010. His location-based social networking service has grown to 7.5 million users in its first two years.

**Jack Shindle** (MS ME) was appointed vice president/engineer at Axion Power International in New Castle, Pa.

## 2003

**Andrea Hubbard** graduated from Ross University School of Veterinary Medicine in 2010.

**Kevin Thompson** introduced the Pzee Computer—a user-friendly system designed for senior citizens, with an intuitive interface, large, easy-to-read buttons, and two years of full technical support included in the basic price. Kevin blogs on common issues in the computing world at [pzeecomputer.com/blog](http://pzeecomputer.com/blog).

## 2004

**John Baird** was invited to give a solo presentation at South-by-Southwest (SXSW) Interactive 2011: “Interactive Comics: Techniques to Enhance Math Education.” The presentation was based on his years of work using art in various educational fields. He will present further research into comics and education at the Pop Culture Association in April and the Conference for the Advancement of Mathematics Teaching (CAMT) in July.

**Tom Daly** ranked among the *Union Leader's* 40 UNDER FORTY for his successful leadership of Dynamic Network Services Inc. in Manchester, N.H.

**Tim McGreal** officially launched the Alarm Arm on the QVC shopping network. The device allows users to install smoke detectors and change batteries without ladders. “Eight years of work distilled down to eight minutes,” he says of the video segment on the QVC website.

**Anthony Paoletta** married Katie Bowen last year. He is an industrial engineer supervisor for UPS.

**Stefanie Wojcik** ran her third Boston Marathon in April 2010, as part of the Dana Farber Marathon Challenge team.



**Anthony Maietta '04** displayed several of his custom-built bicycles at the 2010 North American Handmade Bicycle Show, including a one-of-a-kind creation with integrated GPS capabilities. Maietta, who first learned how to design and build bicycles as a mechanical engineering student at WPI, now fabricates custom bicycles for cyclists throughout the world at his workshop in Shirley, Mass. In addition to operating Maietta Handbuilt Cycles, he works in R&D for cutting-tool manufacturer Simonds International. “It’s really a symbiotic relationship,” he says of his dual career. “Creating products myself with my own hands in the bike business gives me a better understanding of how to design products for Simonds that will be successful on the production floor. And my mechanical engineering degree gives me the understanding of the principles at play when I design and build a bike frame.”—*Kesler Roberts*

## 2005

**William Herbert** took his oath as a notary public for the Commonwealth of Massachusetts for a commission that expires in September 2017. He lives in Somerville and is an application support engineer at Nuance Communications.

**David Toth** (MS, '08 PhD) received the Edward G. Roddy Outstanding Teacher Award at Merrimack College, where he is an assistant professor of computer science.

## 2006



**Erica Anderson** and **Justin Clark** were married July 10, 2010. The wedding party included maid of honor **Romiya (Glover) Barry '04** and best man **Andrew Giaquinta**, along with Pamela Anderson, **Elizabeth Gottardi**, **Jonathan Menard**, Mark Orrico, **Andrew Thayer**, **Mary Kate Toomey '08**, and Nichole Verissimo. Erica and Justin live in Woburn, Mass.

**Kristin Collette** and **Bryan Bigda '09** became engaged in July and are planning a Cape Cod wedding in October 2011.

PhD student **Zach Pardos** ('09 MS CS) placed second among student teams (and fourth overall) in the 2010 KDD Cup Educational Data Mining Challenge. His entry, “Using HMMs and bagged decision trees to leverage rich features of user and skill,” was developed with Professor Neil Heffernan (CS) to predict student responses in an intelligent tutoring system. Zach received \$3,000 and travel funds to present his findings at the KDD annual workshop.

## 2007

**David Greene** graduated from UNH Law (formerly Pierce Law Center) in May 2010 with a juris doctor and a master of laws in intellectual property. He gave a lecture on patent law for WPI graduate students in the Materials Science and Engineering Program.



**Tom Hayes** and **Monica Giddings '06** were married on July 17, 2010. Many WPI alumni attended the event, and the wedding party included

**Hilary Hayes '04**, **Laurie Carpenter '06**, **Gharam Han**, and **Mark Meko '08**. Tom works at Genzyme as a cell process engineer; Monica is a biology teacher at Assabet Valley Regional Technical High School. The couple recently bought a house in Lancaster with a yard big enough for their new Dalmatian puppy.

Air Force Lt. **Bryan Kaanta** is unit admissions officer for WPI's ROTC program.

## 2008



**Ryan Kendrick** and **Erin Vozzola** ('07 MS) were married May 8, 2010. Erin's father, **Bob Vozzola '80**, walked her down the aisle. Classmates in attendance included **Arly Dungca**, **Paul Dragnich**, **Michael Sangillo**, **Jessica Copp**, **Victoria Richardson**, and **Kristin Collette '06**. The couple lives in Houston.

**Jodi Lowell** was profiled in *Diversity/Careers in Engineering & Information* in an article on advanced engineering degrees. She received a master's in materials science at WPI in fall 2010.

**Mary Kate Toomey** is a civil engineer in the Aviation Division of Jacobs Engineering Group's Boston office. Her work includes airside engineering design, including runways, taxiways, and aprons. She was named to the Governor's Advisory Council on STEM (Science, Technology, Engineering, and Math) Education as a subcommittee member. She is pursuing a certificate in business.

## 2009

**Pat Benson** was profiled by the *Foxboro Reporter* on his marathon runs in New York and Boston. He works for Pfizer.

The *Providence Journal* ran an article on **Matt Doherty's** "double life" as a management engineer and a career boxer. He earned a master's degree at Brown in innovative management and entrepreneurial engineering, and recently took a job with Goldman Sachs in New York City. He intends to continue training and told the paper he still dreams about fighting in Madison Square Garden or Vegas some day.

**Cody Wojcik** and his father, Ted, designed the Mow-Ped—an environmentally friendly pedal-powered bicycle-mower that was unveiled at the 2010 North American Handmade Bicycle Show in Virginia and featured in *Make* magazine.

## 2010

**Lianne Elsner** (MS CS) and Nathan Poisson were married Sept. 4, 2010. Lianne is a software engineer for Raytheon Co. They reside in Hudson, N.H.

**Briana Lorenzo's** participation in the campus Relay for Life and her internships in genetics led to her career as a clinical lab technologist in the Tumor Cytogenetics Lab at Mount Sinai Hospital in New York City. Her continued leadership in fundraising events was recently profiled on the American Cancer Society's website.

**Grazia Todeschini** (PhD) joined EnerNex Corp., where she focuses on wind power plants. She is the author of *Wind Energy Conversion Systems as Active Filters*.

### Don't Call It a Comeback *The revered tradition of WPI wrestling continues with enthusiastic support from alumni*

At Homecoming 2010, the wrestling alumni community gathered in Alumni Gym to celebrate the 25th anniversary of WPI's first New England Championship in wrestling, and to share fond memories of their respective years on the team. This extension of its annual gathering on the Quad provided an opportunity for members to reflect on the program's history as well as its future.

Though its level of success has waned in recent years, the wrestling program remains a revered tradition, upheld by many talented and dedicated athletes. And new head coach and wrestling alum Steve Hall '87 is committed to rejuvenating the program.

"I want the current student-athletes to experience what we experienced," Hall says, referring to the days when Alumni Gym was packed to the rafters with fans. "I want them to feel they are part of something bigger than themselves—on campus and with alumni."

Several initiatives are under way to help connect today's wrestlers with wrestling alumni and to re-energize the pro-

gram. Hall has connected each student wrestler with an alum who can offer guidance on the student's education and career options. He is also working toward strengthening the connection between wrestling

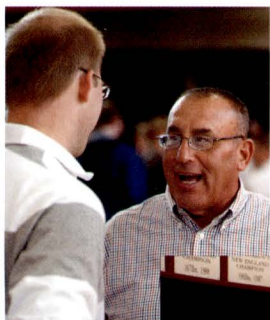
alumni and WPI itself, through such activities as the celebration at Homecoming. In addition, wrestling alumni have launched a special fundraising initiative to establish a new endowment. Called the Grebinar Wrestling Endowment Program, it will support the wrestling program's annual operating expenses and important renovations to the wrestling practice room, among other wrestling priorities. One hundred percent of the funds will go to WPI wrestling.

The endowment is named for former head coach Phil Grebinar, who built WPI wrestling into a powerhouse that dominated New England collegiate wrestling for more than two decades. With an overall record of 499-286-11 (.634), wrestling is the most successful athletics program in WPI history. Wrestling has also placed 14 athletes in the WPI Athletic Hall of Fame. Alumni from the Grebinar era describe it as "not a team, but a family; not a sport, but a philosophy for life."

"It can't be overstated that this was the single most important decision I've made in my life—coming to WPI and being part of the wrestling program," says Hall. "I came out of here with a full toolbox, from my education and from my participation in the wrestling program."

In a special online feature, Hall and assistant coach Garrett Trombi '95, along with Tony Masullo '80, Rich Testa '84, and Brian Chu '92, share memories of the Grebinar Era and insights about how their WPI wrestling experience helped launch their success after graduation.

Visit [wpi.edu/alumni](http://wpi.edu/alumni) to read more about WPI's wrestling tradition and its bright future. For information about the Grebinar Wrestling Endowment Program, contact Donna Stock, director of development, at 508-831-6073 or [dstock@wpi.edu](mailto:dstock@wpi.edu).



Above, Phil Grebinar chats with a former member of Grebby's Grapplers; at right, members of WPI's wrestling family



**George D. Macredis '34** of Englewood Cliffs, N.J., died July 23, 2009. He leaves his wife, Marjorie (Parusis), and two daughters. He retired from Westinghouse Electric Corp. as an electrical engineer.

**Edward R. Markert '34** of Amherst, Mass., died March 18, 2010. He began his career at Savage Arms Corp., served as gun expert during World War II, and worked at the Springfield Armory. He later served as a residential developer in the Elf Hill area of South Amherst. Markert was predeceased by his wife, Claire (Laudenat), a son, and a daughter. Two daughters survive him. He was the father-in-law of Paul Mannheim '61.

**Nelson Marshall '36** of Portland, Ore., died March 25, 2009. A longtime oceanographer, he retired from the University of Rhode Island as professor emeritus in 1984. He was the author of four books; the last, *Oceanography: An Observer's Guide*, was published posthumously. Predeceased by his wife, Grace, in 2006, he is survived by six children.

**H. Foster McReil '36** (Theta Chi) of Worcester died Sept. 25, 2009. His wife, Lois (Denison), died in 2003. Two sons survive him. He was a chemical engineer for Monsanto Chemical Co.

**Sidney D. Alpert '37** (Alpha Epsilon Pi) of Lexington, Mass., died Oct. 16, 2009. He was a structural engineer for Stone & Webster for 44 years. He leaves his wife, Freida, and a son.

**Nathaniel I. Korman '37** of Albuquerque, N.M., died Feb. 11, 2010. He is survived by his wife, Ruth, and two sons. Korman worked for Radio Corporation of America as director, advanced military systems, in the company's Defense Electronic Products division. He was the author of *The USA at Risk*.

Former Phi Sigma Kappa national president **Robert B. Abbe '38** of Tequesta, Fla., died Nov. 1, 2010. He served on the fraternity's Grand Council from 1954 to 1968 and was grand president from 1962 to 1964. He worked for Bethlehem Steel and Smith-Winchester Manufacturing, and later taught at Thames Valley State Technical College. Survivors include his wife, Eleanor, his son, Patton Abbe '70, and a daughter.

**Raymond K. Houston '38** ('39 MS) (Lambda Chi Alpha) died Dec. 4, 2009. He leaves his wife, Valerie (Doss), and three children. A former electrical engineering instructor at WPI, he taught at the Naval Postgraduate School in Monterey, Calif., and retired in 1975.

## Raymond J. Forkey '40, Trustee Emeritus

WPI mourns the passing of Ray Forkey on Feb. 23, 2011. A former president and longtime leader of the Alumni Association, he served as trustee from 1968 to 1989. A quarterback on the undefeated 1938 football team and an inaugural member of the WPI Athletic Hall of Fame, he took great interest in WPI sports, chairing the committee that decided to continue the football program despite several losing seasons. With his wife, Janet, he left his mark on the campus with the Forkey Conference Room in Harrington Auditorium and Forkey Commons dining area in the Campus Center. They also endowed the Raymond J. Forkey '40 Scholarship Fund and funded major renovations to Higgins Laboratories. Forkey retired from Coppus Engineering in 1980 as president and CEO. A member of the Worcester Golf Club for more than 50 years, he achieved numerous championships and milestones. He was predeceased by his wife (who died in 2009) and a daughter; he is survived by a daughter. Ray was a member of Sigma Phi Epsilon and Skull.



**Earle R. Vickery Jr. '38** (Sigma Alpha Epsilon) of Princeton, Mass., died Oct. 16, 2009. A longtime employee of the Department of Environmental Management (now the Department of Recreation and Conservation), he served as superintendent of the Mount Wachusett State Reservation and later developed and operated the Wachusett Mountain ski area. Predeceased by his wife, Calista (Howe), and a son, Earle R. Vickery III '75, he leaves three sons.

**Fred E. Wiley '38** (Theta Chi) of Monhegan and Brunswick, Maine, died Jan. 3, 2010. He was a plastics engineer who held 40 patents and helped develop the cooling systems for the Manhattan Project. He is survived by his wife, Faryl (Finn), and by two children of his first wife, Edith, who predeceased him. He was also predeceased by a son.

**Jack F. Boyd '39** (Sigma Phi Epsilon) of Laconia, N.H., died Dec. 20, 2010. Predeceased by his wife, Marion (Sage), he leaves four children. After several manufacturing positions, he purchased Nashua Brass in 1952 and served as president until retiring in 1952.

**Harding B. Jenkins '40** (Phi Gamma Delta) died April 28, 2010, at the Idaho Veterans Home in Boise. He began his career with American Optical as a trainee in 1940 and retired 32 years later as corporate vice president. Predeceased by his wife, Elizabeth (Stoddard), a son, and a daughter, he is survived by a daughter.

**Carlton F. Swasey '40** (Lambda Chi Alpha) died Aug. 10, 2008, leaving his wife, Jean, and two children. A retired auto mechanic, he later ran Hush Puppy Kennels in Daytona Beach, Fla.

**Alfred F. Andersen '41** (Lambda Chi Alpha) of Santa Rosa, Calif., died July 25,

2010. An activist for disarmament, economic justice, and free speech, he was the author of *Liberating the American Dream and Challenging Newt Gingrich Chapter by Chapter*. His survivors include his wife, Dorothy Dungan Norvell Andersen, his former wife, Connie, and three children.

**Thomas R. d'Errico '41** of Northampton, Mass., a retired professor of civil engineering, died May 18, 2010. Predeceased by his wife, Margaret, he leaves two daughters and a son. He began his teaching career at Clarkson College and retired from North Dakota State University.

**Victor A. Kolesh '41** of Worcester died Dec. 9, 2009. He was retired from Simonds Saw & Steel Co. (now Simonds International) and previously worked for Riley Stoker Corp. His wife, Victoria, died in 2010. A World War II veteran of the U. S. Army Air Corps, his last mission was flying a B-29 to Hollywood for the filming of "The Bamboo Blonde," a movie about a romance between a World War II pilot and a nightclub singer.

**Walter K. Deacon '42** (Alpha Tau Omega) of Yorba Linda, Calif., died Sept. 13, 2009. He was the president of Deacon Associates. Predeceased by his wife, Pauline, he leaves two children.

**Warren G. Harding '42** (Phi Sigma Kappa, Skull) of Lyman, Maine, formerly of Montclair, N.J., died April 27, 2010. He was predeceased by his wife, Gladys, and a son. Two daughters survive him. Harding worked for Public Service Gas & Electric of Newark.

Dr. **Charles A. Jenkins Jr. '43** (Phi Kappa Theta) of Tucson, Ariz., died March 29, 2008. A dental officer in the U.S. Air Force for 22 years, he later established a private practice in periodontics and



endodontics. He was predeceased by his wife, Lois, and a daughter. Two children survive him.

**John J. Archer '44** (Theta Chi) of Chatham, N.J., died Jan. 5, 2010. He leaves his wife, Catharine, and three children. He was a patent lawyer in private practice and later worked for several corporations before retiring from Squibb Inc.

**Everett W. Brown '44**, of Shrewsbury, Mass., died Oct. 26, 2009. His wife, Elvon (King), died in 1983. Three sons survive him. Brown was retired from Heald Machine Co. as a mechanical engineer.

**John G. Underhill '44** (Alpha Tau Omega) of Dallas died Feb. 3, 2010, leaving his wife, Elsie, and two children. His former wife, Marguerite (Casey), died in 1987. He was retired from Exxon Corp.

**Franklyn R. Williams Jr. '44** of Webster, Mass., died April 16, 2010. An architect, he continued the practice founded by his father and retired in 1983. He is mourned by close friends and a godson.

**George W. Gregory '45** (Phi Sigma Kappa) of Mystic, Conn., died March 1, 2010. After graduation he served in the Navy until 1963, then worked for Electric Boat for 17 years and continued consulting after retirement. Survivors include his wife, Jean, four sons, and a stepson.

**Richard W. Moriarty '45** of Peterham, Mass., died Sept. 20, 2008. He leaves his wife, Ellen (Gould), and two children. He was retired from Litton Industries.

**Albert F. Myers '45** of Shelby Township, Mich., died Feb. 11, 2010. He leaves his wife, Paulyn, five children, and three stepchildren. He was predeceased by his first wife, Georgie, in 1981. Myers was the retired vice president of Lear Siegler.

**Alfred W. Rothwell '45** (Theta Chi) of Woodstock, Ga., died Dec. 11, 2009. He was retired from DuPont. He was predeceased by his wife, Thelma (Boyer), and a son. He is survived by a son.

**Frank A. Gross Jr. '46** (Sigma Phi Epsilon, Skull) of Fort Worth, Texas, died Jan. 15, 2010. He was the owner of GO Recognition Concepts, which he founded with his wife, Virginia (Gunther). Other survivors include his son, Donald Gross '72, and a daughter.

**David L. Hall '46** ('54 SIM) (Phi Sigma Kappa) of Worcester died Feb. 13, 2010. His wife, Muriel (Bergstrom), died in 2005. Three children survive him. Hall worked for the former Coes Knife Co., where he held the post of vice president of manufacturing.

**Clarence A. Hodges '46** of Dewitt, Mich., died Jan. 8, 2010. He worked for C. M. Smille & Co.

**Harry J. Mehrer '46** (Theta Chi, Skull) of Lower Gwynedd, Pa., died May 22, 2010. He worked in the family textile business, Butterworth & Sons, and later served as a manager for the Friendly's ice cream chain. Survivors include his wife, Shirley (Hiltz), and two children. He was predeceased by a son.

**Douglas S. Miller '46** of East Northport, N.Y., died March 9, 2010. He was retired from the U.S. Dept. of Energy as a program manager. He leaves two children.

**Robert W. Schramm '46** (Sigma Alpha Epsilon) of Venice, Fla., and Mashpee, Mass., died April 24, 2010. As director of overseas projects for Bristol-Myers Squibb, he oversaw construction of pharmaceutical plants on six continents. His wife, Barbara, died Nov. 10, 2010. He is survived by three sons.

**Robert S. Tamblin '46** of Medford, Ore., died May 11, 2010. He was predeceased by his wife, Sally, in 2009. He was the retired treasurer of JRW Tech Inc.

**William A. Williams '47** (Theta Chi) of Holden, Mass., died March 4, 2010. He was the father of Bill Williams Jr. '80. He also leaves his wife, Loretta (Saunders), and three other children. An electrical engineer, he retired from Heald Machine Co. with 38 years of service.

**Edmund C. "Ned" Dowse Jr. '48** of Asheville, N.C., died May 11, 2009. He retired from Eastman Kodak Co. as an engineering supervisor. He was predeceased by his wife of 53 years, Nancy, and his second wife, Ann. He is survived by a daughter.

**Edward J. Powers '48** (Phi Kappa Theta) of South Windsor, Conn., died Oct. 15, 2010. He leaves his wife, Arline (Kimball), and two children. A graduate of Boston College of Law, he was a contracts administrator in the legal department of United Technologies. After retirement from corporate employment he worked in his son's law office.

**John H. Beckwith '49** ('51 MS CM) of Westerly, R.I., died Feb. 20, 2010. Predeceased by his wife, Johanne, he is survived by six children. His career as a vice president for ExxonMobil Research and Engineering took him all over the globe.

**Richard W. Brown '49** of Avon, Conn., died Feb. 26, 2010. He was retired from the University of Hartford where he taught electrical engineering for 25 years and served as department chair. He previously taught at Norwich University and Wentworth Institute. Husband of the late Barbara (Williams) Brown, he leaves three children.

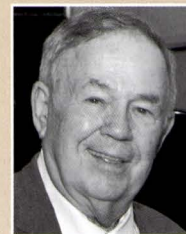
## Trustees Remembrance

**J. Morrison Smith Sr. '37**, former president of the National Radio Institute and dedicated supporter of his alma mater, died Feb. 15, 2010. Smith served as trustee from 1972 to 1977 and was honored with the Herbert F. Taylor Award in 1987. With his father, James E. Smith, Class of 1906, and his nephew, Michael Galbraith '58, he made possible the construction of new facilities for the student radio station, WWPI, in the Campus Center. His family also endowed three named scholarships. Smith was predeceased by his wife, Mary, and a son. Three children survive him. He belonged to Alpha Tau Omega.

**Paul R. Beswick '57**, founder of Beswick Engineering, died Aug. 15, 2010. He is survived by his wife, S.K., who serves as the firm's operations manager, and his son, Chanling, a WPI senior. Paul and S.K. established the Paul R. Beswick Professorship in Innovation and Entrepreneurship in 2008. He also served on the advisory board for WPI's Collaborative for Entrepreneurship and Innovation (CEI). In October 2009 he was appointed to the WPI Board of Trustees.

**Daniel I. Coifman '67**, trustee emeritus, died Oct. 20, 2010. He was founder of Able International and president of TRIL Export Corp. of Puerto Rico, where he worked with his son, Tracy Coifman '93. He is also survived by his wife, Linda, and a daughter. After earning a master's degree in industrial engineering from Northeastern University, Coifman managed polymer plants in the United States and Puerto Rico. A member of Alpha Epsilon Pi, he lived in the fraternity's house on Einhorn Road. He served on the WPI Board from 1995 to 2003 and was a dedicated supporter in the campaign to construct the Campus Center.

Full obituaries may be read at [wpi.edu/News/Memorial](http://wpi.edu/News/Memorial).



*in memoriam*

**Paul R. Dulong '49** (Phi Sigma Kappa) of Dallas, Texas, died Dec. 21, 2009. Predeceased by his wife, Jean, he leaves three children. He worked for several firms as a mechanical and electrical engineer and retired from E-Systems with 20 years of service.

**Henry J. Ezen '49** of North Fort Myers, Fla., died Dec. 25, 2009. After retiring from Polaroid Corp. in 1984, he founded Ezen Consulting Engineers with his wife, Mae (Vacca), who died in 1988, and his daughter, Frances, who survives him.

**Robert M. Jodrey '49** (Sigma Alpha Epsilon) of Westborough, Mass., died April 22, 2010, leaving his wife, Vera (Louis). A former engineering instructor at the University of New Hampshire and Dartmouth College, he later held management positions at several manufacturing firms.

Former Tech Old Timers president **James F. O'Regan '49** (Phi Kappa Theta, Skull) of Westborough, Mass., died March 20, 2010. He leaves his wife, Mary (Rogashio), and four children. O'Regan was the retired president and founder of Feecon Corp., and a former member of WPI's Fire Protection Engineering Advisory Board.

**Abraham W. Siff '49** (Alpha Epsilon Pi) of Sudbury, Mass., died Aug. 30, 2009. He leaves his wife, Patricia (Skehan), and six children. Siff was a retired product manager for Dresser Industries.

**Bernard C. Walsh '49** of Holden, Mass., died Jan. 17, 2010. He worked for Bose Corp. as a mechanical engineer. Predeceased by his wife, Marjorie (Bernard), he leaves six children.

**D. Ray Allshouse '50** of Limerick, Pa., died March 15, 2009. Husband of the late Ruth (Dauderis), he is survived by two sons. He worked as a mechanical engineer at several firms and retired from ElfAtochem.

**Raymond J. Blanchet '50** (Phi Kappa Theta) of Wallingford, Conn., died March 25, 2010. He was retired from U.S. Steel as a plant engineer. His wife, Darcy (Chase), predeceased him in 2008.

**John L. Hawley '50** (Phi Sigma Kappa) of Winter Park, Fla., died May 5, 2010. He leaves his wife, Jean, and a son. He was retired as senior principal engineer for Stone & Webster, where he oversaw the completion of the Comanche Peak Nuclear Station.

**Malcolm D. Horton '50** (Sigma Phi Epsilon, Skull) of Dade City, Fla., died Sept. 28, 2009. He leaves his wife, Doris, and three daughters. Horton joined Dames & Moore in 1952, managed the company's offices in various regions of the United

### Faculty Remembrance

**Alex Dilorio '86** (MS), '91 (PhD), director of the Bioprocess Center and affiliated assistant professor of biology and biotechnology, died July 9, 2010, after a long illness. He leaves his wife, Carol (Gurney) Dilorio '86, and three children. A graduate of Columbia University, he earned a master's degree and PhD at WPI and joined the faculty in 1993. Under his direction, the Bioengineering Center provided contract research to the biotechnology industry and played a central role in workforce retraining programs offered by WPI's Corporate and Professional Education Division. Working with a California company called EdiniQ, Dilorio developed new processes for producing the biofuel ethanol from agricultural waste to lessen the need to use corn and other foods to create fuel.

**Raymond R. Hagglund '56**, professor emeritus of mechanical engineering, died on Nov. 29, 2010. An internationally recognized expert on engineering and product liability law, he consulted on more than 1,500 cases, lectured internationally, and inspired his students with mock trials. He received the 1974 Board of Trustees' Award for Outstanding Teaching. Hagglund played a hands-on role in development of the WPI Plan, rallying students and colleagues to refurbish a disused space in the Washburn Shops to serve as a home for the IQP. His generous support of WPI is marked by the Campus Center Hagglund Room. Preceded in death by his wife, Joyce, he leaves two daughters. He was a member of Phi Sigma Kappa and Skull.

**Owen W. Kennedy Jr. '45**, a long-time electrical engineering professor and WPI's first dean of academic computing, died May 10, 2010. After earning his bachelor's and master's degrees at WPI, he joined the electrical engineering faculty in 1948 and taught for 40 years. Kennedy was instrumental in bringing the first standard desktop computer to the campus. He was an early member of a discussion group of young faculty who laid the foundation for the WPI Plan. Predeceased by his wife, Nancy (Inman) Kennedy, he married Flora (Hakala) Adams in 1994. Other survivors include two children and three stepchildren. He was a member of Phi Sigma Kappa and Skull.

**Audrey L. Muggleton-Harris**, a former associate professor of biology and biotechnology who made notable contributions as a cell biologist and embryologist, died Sept. 2, 2010. She joined the WPI faculty in 1976 and headed up some of the world's first attempts to clone a mouse. She was the first woman to win the Board of Trustees' Award for Outstanding Creative Scholarship and Research. Muggleton-Harris left WPI in 1983 and joined the Medical Research Council in London, where her work centered on diagnosing defects in embryos before in vitro fertilization implantation. She is survived by a daughter and two grandchildren.

Full obituaries may be read at [wpi.edu/News/Memorial](http://wpi.edu/News/Memorial).

States, as well as the Middle East, and continued as a consultant after retirement.

**Alan F. Howe '50** of Princeton, Mass., died April 23, 2010. Survivors include his wife, Ellen (McCarthy), three children, his former wife and friend, Nancy Howe, and five stepchildren. He was retired from Norton Co. after a career of almost 40 years.

**Norman B. Maynard '50** (Theta Chi) of Westport, Mass., died June 3, 2010. He was the retired president of Hathaway-Braleley Wharf Co. Survivors include his wife, Janice (Braleley), and three daughters.

**Joseph C. Syiek '50** of Concord, Mass., died June 22, 2010. Predeceased by his wife, Agnes (Johnson), he leaves five children. An electrical engineer, he was retired from the U.S. Air Force Strategic Air Command at Hanscom Field.

**Warner S. Adams Jr. '51** of Groton, Conn., died Sept. 15, 2009. He leaves his wife, Janet (Cochran), and a daughter. He retired as head of the Submarine Electromagnetic Systems Dept. of the Naval Undersea Warfare Center.



*in memoriam*

**Gerald F. Atkinson '51** (Phi Kappa Theta, Skull), a longtime resident of West Springfield, Mass., died April 9, 2010. He was retired from Pratt & Whitney as an electrical engineer.

**Jin Wah Lee '51** of Pembroke Pines, Fla., died Jan. 15, 2010. He leaves his wife, Kin Lee, and a daughter.

**Roger W. Swanson '51** (Alpha Tau Omega) of DeWitt, N.Y., died May 23, 2010. He was retired from General Electric, where he worked on military radar projects. He is survived by his wife, Marilyn, and three children.

**Donald M. Krauss '52** (Sigma Alpha Epsilon) of Sun City West, Ariz., died Aug. 14, 2010. He was retired from Raytheon Co. as a program manager. Predeceased by his wife, Edna (Skytne), in 2002, he leaves his daughter, Lisa Krauss '80, and two other children.

**Edgar W. Slocum '52** (Phi Sigma Kappa) of Wilmington, Del., died June 28, 2010. He worked at DuPont Experimental Station for four decades. He is survived by two children, his girlfriend, Ina Casale, and his ex-wife, Jean Slocum.

**Robert T. Baxter '53** (SIM) of Scituate, Mass., died Jan. 11, 2010. He leaves his wife, Eleanor, and four children. He was retired from Baxter Enterprises.

**Henry K. Burger '53** of Williamsburg, Va., died April 8, 2010. He retired from a naval career in 1977, with the rank of commander, then held several civilian jobs in public works, hospital operations, and hotel services. He leaves his wife, Gail (McSherry), and three children.

**Philip J. Kaminsky '53** (Alpha Epsilon Pi, Skull) of Marblehead, Mass., died March 19, 2009. He leaves his wife, Harriet (Budnitz), and three children. He worked for Cohmad Securities Corp.

**David A. Bisson '54** (Phi Kappa Theta) of Shoreline, Wash., died May 14, 2010. Survivors include his wife, Carol, and three children. He was the retired president and CEO of Frederick Beck Originals.

**Wilfred F. Taylor '54** (Alpha Tau Omega) of Lyman, Maine, died June 5, 2010, leaving his wife, Mary (Scott), and six children. A civil engineer, he started TEC Engineering and served as the town engineer for Barnstable, Mass., and Gorham, Maine.

**Roy H. Wise '54** (Sigma Phi Epsilon) of Succasunna, N.J., died Nov. 5, 2009. Predeceased by his wife, Evelyn (Ihde), he leaves two daughters and a stepdaughter. He retired from a long career with Nynex.

**John J. Bryce '55** of Lancaster, Mass., died April 11, 2010. He was retired from

Harvey & Tracy Assoc., where he worked as a structural engineer for more than 30 years. Survivors include his wife, Ann (Sargent), and two children.

**Richard E. Goodwin '55** (Phi Gamma Delta) of The Villages, Fla., died Nov. 19, 2009. He leaves his wife, Marjorie, and two children. He was vice president of marketing for Industrial Engineering Inc.

**Philip M. Leavitt '55** (Phi Kappa Theta) of Oak Ridge, N.J., died June 29, 2009. He was retired from Picatinny Arsenal as a nuclear arms engineer. He also founded and ran the Old Pine Shop. He leaves his wife, Sally (Hewitt), and four children.

**Warner I. Clifford '57** (Phi Sigma Kappa) of Kingston, Tenn., died March 18, 2009. A member of the board of Stone & Webster Engineering, he was retired as senior vice president. His wife, Bernice (Huffman), and a daughter survive him.

**James M. Duff '57** (Theta Chi) of Palisades Park, N.J., died Nov. 7, 2010, leaving his wife, Lynn. He received his MBA from Fairleigh Dickinson University and spent his career working at Lever Brothers (now Unilever Home and Personal Care).

**George Klimchak '57** (Sigma Alpha Epsilon) of Daytona Beach, Fla., died June 4, 2009. He worked as a financial advisor for over 40 years. He leaves four children.

**William H. Ostermann '57** (Sigma Phi Epsilon) of Boothbay Harbor, Maine, died Aug. 12, 2009. He leaves his wife, Carol (Waterfield), and two sons. He worked at Pratt & Whitney as a computer programmer. After retirement he served as a park ranger in Death Valley and Acadia national parks.

**Collins M. Pomeroy '57** of Orleans, Mass., died April 24, 2010. He is survived by his wife, Barbara (Morris), and two sons. He was retired from Verizon Communications after a 33-year career.

**Donald G. Striby '57** (Phi Gamma Delta, Skull), of Cocoa, Fla., died Aug. 3, 2009. He was retired from Lockheed Martin. He leaves his wife, Ruth, three sons, and a stepdaughter.

**Robert A. Yates '57** ('59 MS) (Theta Chi) of Bethany, Conn., died Sept 24, 2010. He worked for Uniroyal, retiring as energy/conservation manager. He is survived by his wife, Susan (Reeder), and a daughter.

**David A. Ryan '58** (Phi Kappa Theta) of Winter Park, Fla., died Oct. 6, 2010. He worked for Raytheon and Lockheed Martin. He leaves his wife, Donna (Kinney), and seven children. He was predeceased by his first wife, Nancy (Bullock), and a daughter.

**George F. Walker '58** (SIM), former president of Johnson Steel and Wire in Worcester, died May 7, 2010, at age 83. He leaves his wife, Gladys (Constantine), and two daughters. He founded Delta Wire Corp. in Clarksdale, Miss.

**John A. Beede '59** of Shrewsbury, Mass., died May 30, 2010. An independent contractor, he served as a software and systems analyst for several area companies, including GTE and Raytheon. He is survived by two daughters.

**Leon H. Blanchard '59** (SIM) of Dade City, Fla., died June 12, 2009, leaving his wife, Elizabeth (Field), and four children. He retired from Morgan Construction Co.

**Neil A. Peters '59** (Tau Kappa Epsilon) of Phoenix, Ariz., died May 24, 2010. He worked for the Rochester Products Division of General Motors and later in the aviation and aerospace industry. He is survived by three children.

**Paul E. Honer '60** (Phi Sigma Kappa) of Pensacola, Fla., died May 17, 2008. He leaves his wife, Ruthann, and two children. He was marketing and sales manager for Kennedy Engineering Co.

**John Brunter '61** (formerly Brylczyk) (Alpha Tau Omega) of Glen Cove, N.Y., died Feb. 12, 2010. He was retired from Grumman Aerospace as a senior engineer in the Avionic Design Section. He leaves his wife, Jean (Backstrom), and two children.

**Alfred A. Arterton '62** (SIM) of Westerly, R.I., died July 21, 2009. He leaves his wife, Jean (Merriam), and four children. He worked for several manufacturing companies and retired from Crompton & Knowles Corp. in 1991.

**Thomas W. Conway '62** (Phi Kappa Theta) of Hutchinson, Kan., died Jan. 8, 2009, after a courageous battle with lung cancer. A former partner in Conway & Assoc., he later worked as an agent for New York Life Insurance Co. He was predeceased by his wife, Jeanne, and a son. One son survives him.

**Robert H. Goretti '62** (Sigma Alpha Epsilon) of Plainville, Mass., died Nov. 1, 2009. Predeceased by his wife, Noreen, and a son, he is survived by a daughter. He worked for Texas Instruments and later was an operations manager and sales executive in the jewelry industry.

**Earl M. Maby '62** (MNS), formerly of Monson, Mass., died Nov. 24, 2009, at age 86. He taught mathematics at Lee High School for more than 30 years. Survivors include his two daughters. He was predeceased by Bertha Wilcox, his loving companion for more than 30 years.

**Edward M. Jablonski '64** (SIM) of Clinton, Mass., died April 14, 2010. He was an industrial engineer for Ray-O-Vac Co. for more than 40 years. His wife, Lucille (Renaud), predeceased him. Three children survive him.

**Edward R. Mencow '64** of Lexington, Mass., died May 18, 2010. He contributed to the development of laser technology at Raytheon Co., and later worked for Bell Labs and MIT Lincoln Laboratory.

**David B. Getchell '65** of Rockwall, Texas, died Sept. 20, 2009, leaving his wife, Nancy, and two children. He was president and owner of Tyler 5th Avenue Color Labs.



**Steve R. Dacri '74** (Tau Kappa Epsilon), of Las Vegas, died Feb. 11, 2011, of colon cancer. He leaves his wife, Jan, and a son. From his first magic acts at age six, to his career as a popular Las Vegas illusionist, Steve dedicated his life to performing, teaching, and writing about magic. He impressed WPI deans with his talent during his admission interview, and later credited WPI with giving him the business and marketing background to pursue a career in entertainment. A pioneer in close-up, sleight-of-hand magic, he often returned to the Worcester area to perform and connect with old friends. His act was a popular attraction at WPI Reunions.

**Ralph E. Southwick '66** (MNS) of Barre, Mass., died Nov. 20, 2009. He was 87. Predeceased by his wife, Phyllis (Cook), he leaves eight children. He was a retired middle school science teacher who taught in the Holden school system.

**Walter A. Johnson Jr. '67** ('69 MS ME) of Homosassa, Fla., died Jan. 22, 2011, leaving his wife, Lynda (Kennedy). He began his career as a programmer for IBM and retired from the cost engineering department of Lockheed Martin Federal Systems.

**Allan T. Buros '67** of Amherst, N.H., died June 17, 2010. He was retired from BAE systems as a reliability engineer with 33 years of service. He leaves his wife, Nadine, and three children.

**J. Roger Daugherty '67** (Sigma Phi Epsilon) of Los Angeles died Aug. 11, 2009. He was president and founder of Claviger Corp.

**William P. Stanton '68** ('72 MSCE) (Sigma Phi Epsilon) of Golden, Colo., died April 22, 2010. He leaves his wife, Barbara (Schilling), and two sons. He worked for several engineering and surveying firms, and the Colorado Water Conservation Board.

Former football co-captain **Mark S. Simpson '69** (Phi Kappa Theta) of Germantown, Pa., died May 1, 2010. He was retired from Air Products & Chemicals Inc. Survivors include his wife, Joanne (McNeer), and two children.

**Leonard A. Chauvin '70** (MNS) of Webster, Mass., died April 4, 2010, at age 86. He taught chemistry and health science at Bartlett High School and retired as chairman of the science department.

**Bruce S. Robinson '70** (Phi Sigma Kappa) of Jacksonville Beach, Fla., died Oct. 7, 2010. He received an MBA from Fairleigh Dickinson University and completed the management development program at Harvard University School of Business. He worked for AT&T in New Jersey and Florida. He leaves his wife, Sally, and two sons.

**William S. Cundall Jr. '71** (SIM) of Spencer, Mass., died May 11, 2010. He was 81. He leaves his wife, Helen (Bowmar), and four children. He was a retired foreman for Jamesbury Corp.

**Daniel T. Donahue '71** of Woburn, Mass., died Dec. 1, 2009. He was an engineer for Coughlin Environmental and previously served as town engineer for several Massachusetts municipalities.

**James R. Fay '71** (Tau Kappa Epsilon) of Marlborough, Mass., died March 5, 2010. He leaves his wife, Judy (Wight), and two daughters. A graduate of the ROTC program at WPI, he was retired from the Air Force as a structural engineer.

**Bryan L. Furtek '71** of Salt Lake City died Feb. 7, 2010. He was president of Bryan L. Furtek Consulting, an environmental engineering firm specializing in water and soil remediation.

**Gordon F. Chess '72** (PhD EE) of London, Ontario, Canada, died Oct. 9, 2009, at the age of 84. He was the retired dean of engineering at the University of Western Ontario. He leaves his wife, Margaret, and three children. He was predeceased by a daughter.

**James R. Hargraves Jr. '72** of Bethel, Conn., died March 23, 2010. He was the founder of PDS. He is survived by his wife, Patricia (Goettel), and four children.

**Roger T. James '73** (MS MA) of Sterling, Va., died April 17, 2010. He retired from Science Applications International Corp. as a senior analyst. Survivors include his wife, Mary Ellen, and two children.

**Ralph E. Bednarik '74** (SIM) of West Yarmouth, Mass., died Aug. 16, 2009, at age 82. He leaves his wife, Sandra (Poole), two children, and two stepchildren. A longtime engineer for Wyman-Gordon Co., he retired as manager of the company's Grafton plant.

**Richard Pomeroy '75** of Acton, Mass., died June 30, 2009. He worked for General Electric.

**Earle R. "Russ" Vickery III '75**, of Hendersonville, Nev., died Jan. 5, 2009, leaving his wife, Margaret. He was the son of the late Earle R. Vickery '38. He was self-employed as owner of Vickery Design.

**John F. Del Prete '76** (SIM) of Naples, Fla., died July 16, 2009, at age 82. He was retired from Commonwealth Energy as director of public relations, and from the Army National Guard as chief warrant officer. His wife, Vera (Buchner), and six children survive him.

**Dave "The Bear" Pryor '76** (Lambda Chi), of Salem, Ill., who played four seasons on the football team, died June 14, 2010. He leaves his wife, Susan, and three children. He was president and CEO of Radiac Abrasives. WPI classmates held a pre-game remembrance for his family at Homecoming.

**Joseph P. Murphy '77** (SIM) of Rutland, Mass., died March 19, 2010. He was the husband of Joan (Budnick) Murphy, assistant to the dean of graduate enrollment at WPI. He also leaves four children. Murphy was the retired plant manager for Jamesbury Corp.

**Joseph B. Dellagala '79** (SIM) of Shrewsbury, Mass., died March 2, 2010, at age 88. His wife, Esther, survives him. He was predeceased by his two sons. Dellagala was retired from Wright Line Corp. as a manager.

**Raymond J. Weavill '79** of Harrisburg, Pa., died Jan. 4, 2010. He leaves his wife, Joyce, two children, and three stepchildren. He managed AMP/Tyco Electronics' Lickdale Plant.

**Gordon C. Estabrooks '80** (MNS) of Chelmsford, Mass., died April 15, 2010, at age 83. He was head of the Science Department at Boston Latin High School for more than 25 years. His wife, Alice (McEwen), survives him.

**Francis V. Wenc '80** (SIM) of The Villages, Fla., died Aug. 30, 2008, at age 66. He was in charge of beverage systems maintenance for Wayne Densch Inc. His wife, Sheila, survives him.

**Laurent L. Bourbeau '82** (SIM) of Sturbridge, Mass., died May 17, 2010, at 72. Survivors include his wife, Carol (Monette), and four children. He was retired from Hyde Tools as director of health and safety.

**Richard R. Terry '82** (MNS) of Marlborough, Mass., died Feb. 9, 2010. He was 74. Predeceased by his wife, Rita (Maiorano), he leaves three children. He retired from Marlborough High School as head of the Science Department after almost four decades of teaching.

**Francis R. Halas '84** (MNS) of Lynnfield, Mass., died Jan. 23, 2009, at age 66. He was a retired teacher at Malden Catholic High School. His wife, Eleanor (Goc), survives him.

**Geoffrey C. Sluicer '85** of Brookline, Mass., died unexpectedly on March 6, 2010. He was a software engineer for several high-tech firms in the Boston area, including Timely Solutions. He is survived by a brother.

**Martin J. Moran '88** of White Plains, Md., died May 22, 2009. An authority on nuclear submarine weaponry, he served at naval shipyards in Norfolk, Va., Newport, R.I., and Portsmouth, Va. He is survived by his wife, Donna (Johnson), and two stepsons.

**Daniel E. Bruso '89** of Somers, Conn., died Feb. 14, 2010. He leaves his wife, Sandra (Strumski), and three children. An associate in the intellectual property litigation practice of Cantor Colburn LLP, he was also adjunct professor at Western New England College of Law.

**David A. DiBattista '90** (Alpha Chi Rho) of Enfield, Conn., died Jan. 10, 2010. He leaves his wife, Kathleen (White), and two children. He was a sales engineer for Standard Bellows Co.

**James R. Perron '90** of North Scituate, R.I., died April 27, 2009. A Navy veteran of Operation Desert Storm, he was employed by the U.S. Postal Service. His wife, Anita (Lamb), survives him.

## Staff Remembrance

**John Lott Brown '46**, a longtime trustee who served as interim president from 1994 to 1995, died Jan. 16, 2011. His academic career included positions at the universities of Kansas, Pennsylvania, and Rochester, and a decade at the helm of the University of South Florida, where he oversaw the transformation of the school from a small liberal arts institution to a major research university. Brown received the Robert H. Goddard Alumni Award for Professional Achievement in 1969, an honorary doctorate in science in 1984, the William R. Grogan Award for Support of the Mission of WPI in 1996, and the Herbert F. Taylor Alumni Award for Distinguished Service in 2006. During his year as interim president, he was tapped for Skull. He is survived by his wife, Catherine, and four children.

**James F. Fee '65**, co-founder of the WPI Venture Forum, died Oct. 4, 2010, leaving his wife, Joan, and two children. He belonged to Phi Kappa Theta and served on his Class Board of Directors. A consultant to entrepreneurs, Fee worked with alumni and faculty to create the Venture Forum, a unique organization devoted to bringing together entrepreneurs, investors, business leaders, and job seekers. Under his leadership, it grew to a self-supporting nonprofit with several hundred members, offering monthly programs.

Full obituaries may be read at [wpi.edu/News/Memoriam](http://wpi.edu/News/Memoriam).

**Bruce E. Anderson '91** (SIM) of Lunenburg, Mass., died July 20, 2010. He was 68. Survivors include his wife, Marian (Kraft), and three children. He was retired from Norton Co.

**Lawrence C. Fox '97** (MBA) of Dartmouth, Mass., died Nov. 2, 2010. He was 49. He was vice president of sales for DM Technology & Energy. He leaves his wife, Laura, and three children.

**Jared B. Berube '98** of Tolland, Conn., died unexpectedly on March 15, 2010. He leaves his wife, Dianna (Carlson) Berube '98, and two children. He earned an MBA at Nichols College and worked as a cell manager for United Abrasives Inc.

**Rhonda J. (Lima) Goonan '98** (MME) of Raynham, Mass., died June 18, 2009, at age 39. She leaves her husband, Robert, and three children. She taught math at Sharon High School.

**Michael W. Hamel '99** of Naugatuck, Conn., died unexpectedly on April 9, 2010. He worked in the IT department of the state's Region 15 Board of Education. He is survived by his parents and a sister.

**Alexander A. Naiman '05** of Foxboro, Mass., died Nov. 24, 2009. He graduated from Dartmouth College in 2007 with master's degrees in biostatistics and epidemiology studies, and was working on his doctorate in genetics and laboratory science in cancer research and researching the use of bacteria and viruses as a vehicle to penetrate and kill cancer cells. He is survived by his parents.



*in memoriam*

WPI has also received notice of the following deaths:

**William S. Hoar '22** in 1990  
**Richard F. Norton '26** in 2002  
**Henry I. Hirschen '30** in 1990  
**William J. (Grabowski) Graye '42** in 1990  
**Robert W. Pease '42** in 2004  
**Alojzy A. Moroz '44** in 2004  
**George F. Langley '54** (SIM) in 2006  
**Marion T. Harris '60** in 2005  
**Philip Bitzas '75** in 2007  
**Lawrence H. Cope '90** in 2004

## Postscript

Two veterans who lost their lives in service received special commemoration last year.

- Lt. Col. Howard D. (David) Stephenson '60 was laid to rest in Arlington Cemetery more than 38 years after he was listed as missing in action during the Vietnam War. A military funeral was in June 2010, after the recovery and identification of remains of all 14 airmen aboard an AC130A gunship that was shot down near the border of Laos in 1972.
- The 1st Lt. Ryan Patrick Jones Bridge on Route 2 in Westminster, Mass., was dedicated in September 2010 in honor of the 2005 graduate who was killed in action in Iraq in 2007.

# There's a New Kid in Town

**It all began** with the kidnapping of a live goat from a nearby farm in 1891. The unfortunate animal was stabled at a farmhouse on Park Avenue, and its care fell to a Japanese student, Gompei Kuwada (because of his ability to handle the beast and because his were the only initials that fit the title "Goat Keeper"). When the school year ended, the students balked at the cost of boarding a live goat for the summer. Instead, they kept only the head of their mascot, mounted on a board.

When their cherished relic was stolen by sophomores the following year, the Class of 1893 tried to cover up the humiliating loss by having a look-alike goat beheaded and mounted. Imagine their shock when, 20 years later, as they sat enjoying their Reunion Banquet in the Electrical Engineering Laboratory (now Atwater Kent), they looked up to see their original goat's head being lowered from the ceiling by a crane. Their tormentors had kept it hidden in Canada and took great joy in dangling the prize in the faces of its rightful owners.

In 1926 the rank and tattered specimen was deemed too far gone to preserve. Its creators commissioned a bronze sculpture—said to weigh "twenty and a Kuwada" pounds—to replace it. They presented the trophy to the Class of 1928 at its sophomore banquet, along with rules for a class rivalry that would engender spirit—and controversy—for decades to come.



Although the rules have evolved over time, the game remains essentially the same: the Goat is awarded to the class that accumulates the most points in a series of class rivalry events. Its possessors are required to "show" the trophy publicly at large gatherings—giving rival classes a chance to snatch it. The competition has gone through periods of dormancy and revival, and has at times been constrained by an administration concerned for student safety in the rough-and-tumble rivalry.

In 1995 the Alumni Association arranged to have a replica created, so the valuable original could be preserved in safe storage. But as the new and the old Goat statues were being carried into Higgins House for a photo shoot, they were snatched from the arms of an unwary Alumni Office staffer. By sundown the original statue was returned to the proper authorities—with a '96 etched on its derriere.

We now have a new Proud Goat statue that looks out across the Quad from its temporary post by the Bartlett Center. A senior gift from the Class of 2009, this life-size rendering of the beloved mascot was created with generous support from the larger WPI community and a matching gift from Trustee Emeritus Win Priem '59. While the earlier trophy remains in play, this noble Goat will stand guard over WPI's new Sports and Recreation Center upon its completion.

Possessors of the goat mascot are required to "show" the trophy publicly at large gatherings—giving rival classes a chance to snatch it.

WPI's mascot has taken many forms, from bronze trophy to the costumed mascot who leads cheers at sports events.





The "Proud Goat" statue, temporarily installed at the Bartlett Center, is a 600-pound bronze sculpture by Robert Shure. It was a senior gift from the Class of 2009.



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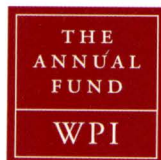
Mrs. Lora T. Brueck  
20 Somerset St  
Worcester, MA 01609-2110



What is the *next great problem* that will be solved?

It may be the world's critical need for clean water, a problem currently being examined by Jeanine Plummer, the Alena and David Schwaber '65 Professor of Environmental Engineering, and her students. Plummer helped Karalee Conover '11, Carrie Ellsworth '11, and Victoria Mason '11 pursue their Major Qualifying Project in Ghana. The students assisted Karen Kosinski '02 with her doctoral research on *Schistosoma haematobium*—a parasite second only to malaria in its devastating impact on millions of people throughout the world. They built a filtration system and developed an education program to help prevent *Schistosoma* infections.

Your direct investment advances WPI's academic program, fuels the entrepreneurship of our students and faculty, and supports their pursuit of solutions to problems of global importance. Given the remarkable record of WPI alumni and faculty, more than one of their innovations will go on to have a profound impact on the world.



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