

W
JOURNAL

Free Agent
Bob Behn '63





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COMPLETED CAREERS

IN MEMORY OF ALUMNI, FACULTY, AND OTHER MEMBERS OF THE WPI COMMUNITY.

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FEMALE IMPACT

President Leshin's comment in the Fall 2015 *Journal* that "The fact is, women and men can – and do – collaborate as peers in scientific research. They do so regularly and with great impact. And despite Hunt's assertions, women consistently do so without falling in love or dissolving in tears" is correct.

Mr. Hunt's assertions are based on incorrect patriarchal assertions. Merlin Stone's book *When God Was a Woman* shows the difference, when as in ancient Crete women were in charge of religion. Unlike the Judeo-Christian idea, sex was considered good and was part of religious services and did not come under the power of men.

An excellent book about patriarchy is novelist Marilyn French's *Beyond Power*, which clearly shows where patriarchy comes from and its problems. I feel that both of these books should be sold in the WPI bookstore and should be considered as textbooks in a course. Now that we have women students and a [woman] president, it is time for WPI to study this important subject.

—Robert W. Holden '55

DEAN GROGAN

I had not heard of Dean Grogan's passing until I read the Fall 2015 *WPI Journal*. Fortunately for me, Dean Grogan was my academic advisor for four years and I probably ranked as his worst student! As a typical knucklehead freshman, I walked away with one specific tidbit of advice that still resonates with me and one that I share with my kids, nieces, nephews, etc. – he advised, "Don't let the day become night and the night become day!" True words of wisdom – I am thankful I was just barely smart enough to listen and follow his recommended path! Thanks to Dean Grogan for helping me get through WPI.

—David Rega '89

TORTURED

I received my copy of the *WPI Journal* today. It is addressed to "Ms. and Mr. Marylou and John T. Domino." While technically correct, this tortured form of address would be laughable, if it weren't so sexist.

About a decade ago, when suddenly John's name and not mine appeared on WPI correspondence, someone from the Alumni Fund explained to me that since John's company was the source of matching funds, his name had to be in the system, which meant it was on the mailings. She added my name, which was a reasonable compromise and is probably the source of the current label. John no longer works for a matching gift company, and hasn't for more than five years, and neither do I. I have called WPI to remove my husband's name from anything that comes from there. I am the graduate, not John. In fact, he graduated from RPI and I can assure you that his correspondence from RPI has never included my name, even though I am the one who sends in our annual donation.

When I was at WPI, a professor of mine very openly said that women didn't belong there (he was the only one I ever came across during my four years at WPI who was not supportive of women being there). I am proud that I and all of my fellow alumnae have proven him wrong. Please take my husband's name off the label and send the *Journal* only to me.

—Marylou Place Domino '81

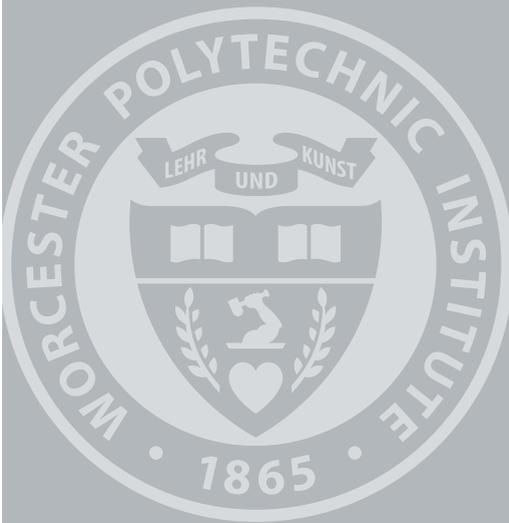
CORRECTION: Our article on Kyle Petersen ("First Line of Defense") in the Fall 2015 issue misstated his year of graduation. He is a member of the Class of 1990.

PRAISE US OR PAN US, OR SIMPLY SHARE
BY SUBMITTING YOUR LETTER TO EDITOR
DOREEN MANNING AT DMANNING@WPI.EDU.

Letters may be edited for length and clarity.



THE VIEW FROM HERE



Dear Friends,

In my introduction to *True to Plan*, the recently published history of WPI's third half-century, I marveled at the boldness and sheer audacity of the greatest achievement of that time period—the WPI Plan, our remarkable project-based approach to learning. The story of how the Institute invented this radical departure from traditional engineering and science curricula and then sustained and built upon it, decade after decade, makes for riveting and eye-opening reading.

But as effective as it has been, and as much as it has enriched the lives and bolstered the careers of generations of our graduates, the Plan has had only a modest impact on the rest of higher education. As I noted in that introduction, this could be because our breakthrough was “so far ahead of its time that only now are so many other institutions realizing the power of the new type of learning environment that WPI built.”

I am pleased to say that this statement is proving true. The Plan, and those who have brought it to life, recently received some extraordinary recognition. On Jan. 6, the National Academy of Engineering announced that WPI is the 2016 recipient of the *Bernard M. Gordon Prize for Innovation in Engineering and Technology Education*, the nation's highest honor for excellence in the field. The award will be presented at WPI on April 15 by NAE president C. D. Mote Jr.

The Gordon Prize specifically recognizes four WPI faculty members who have played central roles in the WPI Plan's ongoing evolution: Diran Apelian, Alcoa-Howmet Professor of Mechanical Engineering and director of the Metal Processing Institute; Arthur Heinricher, professor of mathematical sciences and dean of undergraduate studies; Richard Vaz '79, associate professor of electrical and computer engineering and dean of interdisciplinary and global studies; and Kristin Wobbe, associate professor of chemistry and biochemistry and associate dean of undergraduate studies.

These talented educators, who helped establish and build our Global Projects Program and Great Problems Seminars,

readily acknowledge that they will accept the Gordon Prize on behalf of a legion of faculty members and administrators who created, implemented, nurtured, safeguarded, and enriched the Plan over the course of 45 years. It is because of their boldness, their imagination, their persistence, and their passion that the Plan has thrived for so long. And it is due to their hard work and their unending belief in the power of project-based education that the Plan will now be a model for change in higher education.

Indeed, opportunity now abounds as more and more institutions come to understand the proven benefits of project-based learning and look for advice from those who have mastered this approach to education. Increasingly, they are looking to WPI. Last year, when we launched our summer Institute on Project-based Learning in partnership with the Association of American Colleges and Universities (AAC&U) to share what we know with other colleges and universities, nearly 40 teams from institutions across the globe vied for the 18 available spaces.

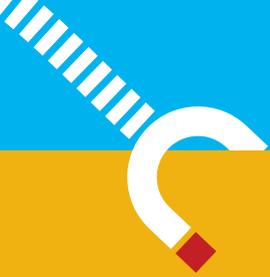
And so this January, at the AAC&U's annual meeting in Washington, D.C., we announced that we are leveraging the funding from the NAE Gordon Prize to launch the permanent *Center for Project-based Learning* at WPI. In addition to offering intensive training institutes for teams from universities around the world, the center will send WPI faculty to other schools to deliver custom workshops, provide consultation and mentorship, create scholarly works on project-based education, and build a library of project-based learning materials and tools.

The Gordon Prize and the new center shine a bright spotlight on the Plan and the innovation that underlies it. They are helping us continue to stay true to plan. And that is something we can all be proud of.

Sincerely,

A handwritten signature in black ink, appearing to read "Laurie A. Leshin".

Laurie A. Leshin
President



TOUCH TOMORROW

A FESTIVAL OF SCIENCE, TECHNOLOGY, AND ROBOTS AT WPI

JUNE 11, 2016

Festivities begin at 10am
Free and open to the public
Rain or shine

NASA returns for the **Sample Return Robot Centennial Challenge**, a national competition with a **\$1.5 million prize**. In celebration, **WPI** will host the **fifth** annual **TouchTomorrow**—a popular family-friendly festival showcasing interactive exhibits by **WPI, NASA, and friends**.

» touchtomorrow.wpi.edu



MAXIMUM POTENTIAL

ODS DIRECTOR HOPES TO GIVE STUDENTS THE SUPPORT THEY NEED TO SUCCEED

Last summer Laura Rosen was appointed director of WPI's Office of Disability Services. Having started at ODS as assistant director overseeing the Exam Proctoring Center (EPC), it was here she familiarized herself with the challenges of students with disabilities on campus. With a 60 percent increase in the number of students who have disclosed and accessed accommodations through ODS over the last four years, Rosen is rising to the challenge of improving the student life of those who come to her office for guidance.

EXPOSURE

From a young age, disability was a large part of my extended family—the most incredible people you will meet—but I witnessed the stigmas and challenges they faced in their day-to-day interactions with others. As an undergrad at the University of Connecticut, I worked at the Center for Students with Disabilities; I found that I enjoyed helping students achieve their maximum potential.

INNOVATIONS

Over these few years, the ODS has seen tremendous growth, especially in the area of exam-based accommodations. We've almost doubled the number of exams we proctor. To meet the growing need during final exams, we were borrowing spaces in the Academic Resources Center and using our personal offices to run the EPC. With generous support from our campus partners, we're now able to use the Odeum in the Rubin Campus Center; now everyone can remain in one location.

We also unveiled a new database that allows students and professors to seamlessly share accommodation and exam info online. Our previous paper-based system required students to pick up hard copies of accommodation letters from our office,

bring them to a professor, and return a signed copy to our office. Starting this year, students may request letters anytime (not just during business hours) and professors are notified by email once those letters are requested. The process allows students to practice self-advocacy more naturally with a professor without focusing on the signature needed for the letter. We're still working out some of the kinks in the system to improve functionality, but we know this a change in the right direction.

GOALS

My biggest goal for this year is to raise more awareness regarding the support our office provides, the purpose of accommodations, and ways we can be inclusive of students with diverse abilities. We believe there are many more students who could benefit from our services. There's a common misconception that accommodations provide an unfair advantage; in actuality, they level the playing field and provide an equal opportunity for students with disabilities to access the curriculum.

EDGE

In order to maximize our resources, our EDGE (Empowering Directed Goals for Education) mentoring program matches upperclass peer mentors with first-year students to be proactive in helping them transition to WPI and get connected with campus supports early.

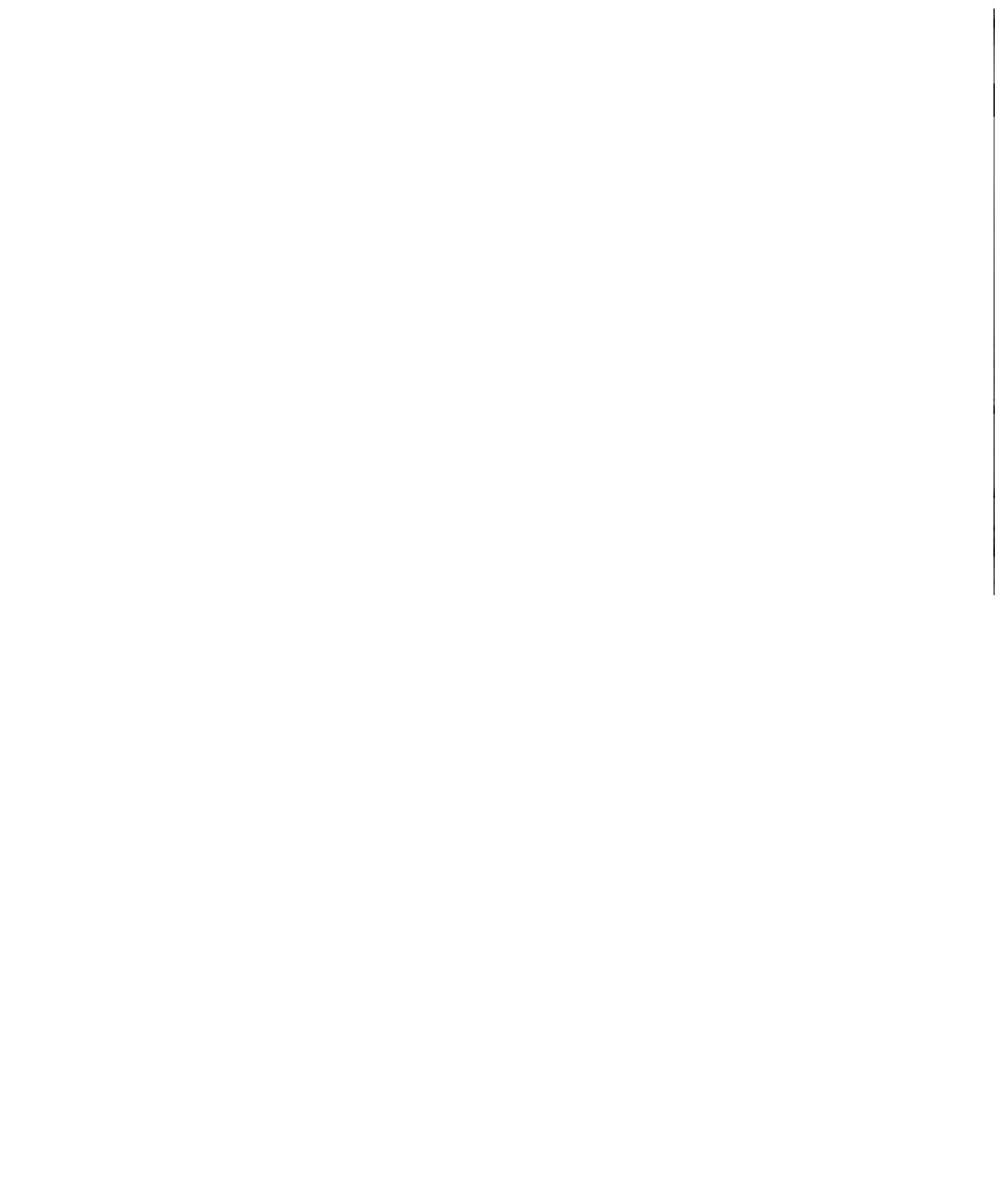
STIGMAS

The biggest challenges students face are stigmas associated with disability and utilization of accommodations. They often feel pressured to explain to peers why their exam is taken in the Exam Proctoring



ILLUSTRATION PJ LOUGHRAN

Center rather than in the classroom, or to their professors why copies of notes provide them greater access to the course material. They sometimes internalize assumptions that they're "just being lazy," or "asking for special treatment" when that's not the case. One way we try to support students and change the stigmas associated with disability is through "Beyond Disabilities Week." This annual multi-day event in D-Term is held in conjunction with the student group ACCESS (Awareness, Community, Collaboration, Empowerment, Support, and Success), to raise awareness across campus to embrace and celebrate differences in learning and to think more creatively about providing accessible opportunities for our WPI community, both inside and outside the classroom.





In 2015, WPI Flamingo Team members helped celebrate the United Nations Universal Children's Day, a global recognition of children's rights. Planned with the Centre for Early Childhood Development (CECD) and Flamingo Heights residents, it was a day to celebrate the wider community's commitment to a healthier neighborhood for their children.

The defining element of any WPI project center is the community it serves. No matter where the location, students arrive ready to collaborate, and the Cape Town Project Center is no different.

Working with Cape Town area partners and WPI faculty members since 2007, students tackle issues such as water, sanitation, housing, children's needs, flood prevention, food security, local entrepreneurship, and a more sustainable livelihood for the community as a whole.

Scott Jiusto, associate professor in the Interdisciplinary & Global

Studies Division (IGSD) and director of the Cape Town Project Center since its inception, was recently named CASE Professor of the Year for Massachusetts. He explains the emphasis on Shared Action Learning (SAL) found throughout all WPI project centers as the heart of the Cape Town success. "The students get a project and are the drivers, but they can't make it work on their own," he says. The students quickly become aware of strong social differences and eventually learn from working closely with community members at very deep levels.

SAL emphasizes *sharing* among partners of ideas, knowledge, resources, inspiration, and compassion; *action* that supports the creative impulses and strengthening of communities and partners; and *learning* drawn from research, action, and critical reflexive practice.

Jiusto explains that part of the

Cape Town success can be attributed to the work the students put forth to reach their goals, but also in the deep appreciation for humanity that comes from the collaborative work itself. "The students quickly learn that we have a mutual responsibility to one another. They discover how fun and exciting it can be to take a big risk. And to struggle with all that comes with that risk—plus, they learn to keep on going when they experience a problem."

Mentorship is an essential component to all project centers. "The way we do the project centers has been created through a lot of other advisors who have worked at Cape Town," says Jiusto. They have helped think through what we're trying to do—as well as our partners who have invited us to work with them. They show us the things that are important to them."

Cape Town projects in 2015 included supporting a sponsor's

governing body in the lengthy government registration process and creation of funding strategies for an early childhood center; aiding a soup kitchen to develop additional programs, document personal stories of regular guests, and address challenges that their guests face as street community members; advancing a peer-education approach to increasing access to information technology in poorer communities; and a proposal to empower area women to help them better understand new types of technology.

Recently taking over the helm in Cape Town is Nicola Bulled, medical anthropologist and assistant teaching professor in IGSD. Jiusto, moving on as advisor to the Santa Fe Project Center, says that although Cape Town has its own unique flavor, it's all about the program itself. No matter where WPI students and faculty go, it's the difference they make that matters in the end.



The WPI campus is rich in tiny details that most of us walk by but don't notice, says Michael Voorhis '92. In particular, the gnomish faces that stare out from the façade of Alumni Gymnasium have fascinated him since his student days. On hearing that an innovation center will be built in its place, Voorhis was moved to catalog all 34 figures in a series of color photographs that were the basis of his recent exhibit, "The Gargoyles of Alumni Gymnasium."

Strictly speaking, those ghoulish characters are *grotesques*. Gargoyles (deriving from the French word for throat) are actually decorative water-spouts that divert rainwater away from a building's exterior. The WPI community has referred to its athletic-themed grotesques as gargoyles for a century, and the change may take some effort.

An amateur photographer and a student of WPI's unique beauty, Voorhis says that "anything that's got a lot of eye candy on the outside" attracts his attention and makes him want to know more. Were the gargoyles carved or cast? Who made the stained glass windows that grace Alden Memorial and Boynton Hall? What led the pragmatic WPI engineers to include such

fanciful design elements? Voorhis, who works in stark, functional Fuller Laboratories as lab manager for the Computer Science Department, says, "That's what makes them so special. They're unnecessary pieces of wonderful artistic expression."

One of his favorite finds is the crest above the entrance of Higgins House, with the Latin motto *Festina Lente*. "Hasten slowly," Voorhis translates. "It struck me that such unusual things are hidden away in plain sight on our campus," he says. "It's easy to park your car in the parking garage and just walk straight to your office and do your work. Going slowly and really looking at those details—it's not something we often do."

Voorhis has donated his photographs to the WPI Archives for posterity. As for the grotesques themselves, assistant vice president for facilities Fred DiMauro says, "They are part of our selective demolition plan, which will salvage them along with other architectural features of the building. Our hope is to incorporate some of those materials into a lasting tribute to Alumni Gym and its special place in WPI history."

HIDING IN PLAIN SIGHT



TRUE TO PLAN

NEW BOOK GIVES BEHIND-THE-SCENES
LOOK AT PAST 50 YEARS OF WPI

When a committee of WPI community members set out to create a book chronicling the past 50 years of the institution's history, they had one overarching goal: to provide an honest, informative, and readable account of the people and events that shaped that journey, even if it wasn't always a smooth road.

"We didn't want to tell a story through rose-colored glasses," says Mike Dorsey, WPI's director of research communications and editor for the book. "We sought to give an authentic look at the struggles and triumphs that WPI went through as it transformed from a regional technical institute to a global model of innovation."

The resulting book, *True to Plan: Crafting an Educational Revolution Beneath the Two Towers*, was published in November 2015 in conjunction with the conclusion of WPI's sesquicentennial celebration. Written by John Landry and Jeffrey Cruikshank, it covers WPI's history between 1965 and 2015 and draws on archival information and interviews with more than 30 current and former WPI faculty members, staff, and alumni.

True to its remit, the book does not shy away from darker and

controversial issues, such as worries over accreditation and more than one financial crisis. Yet, it ultimately shows how WPI overcame these obstacles and did what it does best—tackle and solve significant problems.

As Dorsey notes, nowhere are these struggles and achievements more apparent than with the WPI Plan. "Today we look at the Plan as a revolutionary and highly successful initiative, but when it was first brought up for a vote, one-third of the faculty actually voted against it," says Dorsey. Other milestones include the arrival of WPI's first female students, the rise of the Global Projects Program, and expansion of the humanities and arts.

"This is the type of book that people will want to sit down and read from cover to cover," Dorsey says. "I hope that when they are finished they will not only have learned a lot but also feel proud to be part of WPI."

True to Plan can be purchased at the WPI bookstore or at wpi.edu/+buyhistorybook.

—Jennifer Wyglinski

► QUOTABLE

“THE SENSE OF PRIDE THAT THIS AWARD INSPIRES BELONGS TO ALL OF US.”

—**Laurie Leshin** on WPI's receiving the Bernard M. Gordon Prize for Innovation in Engineering and Technology Education. The award recognizes the WPI Plan, and specifically honors four outstanding faculty members for driving innovation in WPI's curriculum and for inspiring greatness from both students and colleagues (page 3.)

WPI HAS ALWAYS BEEN BOLD WITH THE “POLY” ASPECT OF ITS TECHNICAL NATURE, so hosting the 40th Annual Meeting of the International Merleau-Ponty Circle was an opportunity not to be missed, says associate professor of philosophy Jennifer McWeeny. She recently served as conference director of “The Twenty-First Century Body: Thinking Merleau-Ponty In and Out of Time,” which brought more than 100 philosophers, psychologists, historians, social scientists, healthcare specialists, political theorists, artists, and like-minded professionals to campus in October to consider how the work of French philosopher Maurice Merleau-Ponty (1908–1961) applies to the challenges faced by bodies in the present century.

WPI faculty offered concrete

examples, with demonstrations from their work on the frontiers of robotics, virtual reality, artificial intelligence, and medicine, raising philosophical questions about the similarities and differences between humans and machines, the corporeal mechanisms of human experience, and malleability and adaptability of human bodies. More food for thought came from close consideration of

WPI HOSTS “THE 21ST CENTURY, BODY”

local art and architecture, with a guided walking tour and a private gallery visit to the Worcester Art Museum, where WPI’s “Human-Robot Improvisation” entertained. A highlight of the conference was the juried art exhibition in Gordon Library comprising 17 works that express the relationships between bodily experience, perception, and art that Merleau-Ponty’s philosophy describes.

“WPI is uniquely positioned to host scholarly events that are robustly interdisciplinary and emerge at the fecund intersections of science, humanistic inquiry, engineering, and art,” says McWeeny. “A defining feature of Merleau-Ponty’s philosophy is to attend to the full range of human experience with multiple ways of knowing, from empirical investigation to logical calculation to artistic expression. The International Merleau-Ponty Circle benefited immensely from its visit to WPI because we were able to demonstrate this complementarity of disciplines in action.”

See the complete conference program and art catalog at wpi.edu/+MerleauPonty.

SPEAKING OUT ABOUT GAMER ABUSE

WPI gamers shed some light on a dark corner of the gaming universe when filmmaker Shannon Sun-Higginson came to campus in September as part of the IMGD Celebrity Series. After screening her latest work, *GIFO [The Movie]*, she led a discussion about misogyny in the video game industry and the harassment that female players endure when playing online.

The documentary, which premiered at SXSW last year, exposes abuse directed at women with interviews, screen shots, and audio recordings of actual

exchanges. These range from name-calling, to sexually explicit comments, to threats of rape and murder. The underlying message from the abusers is that women gamers are unwelcome in this previously male-dominated universe—or, in the vernacular of the film title, “Get the F___ Out.”

It’s a phrase that is all too familiar to female players, said Sun-Higginson—an assertion that was borne out as soon as the lights went up in Fuller Labs’ Perreault Hall and the discussion began. “As a woman gamer I have experienced harassment,”

GIZELLE, SILVER GELATIN PHOTOGRAPH BY EDNA LANIERI, FROM THE ARTIST'S SERIES ON DRAG PERFORMERS FROM NEW ORLEANS. THE DIVERSE WORKS IN THE TWENTY-FIRST CENTURY BODY JURIED ART EXHIBITION EXPLORE BODILY EXPERIENCE IN ALL ITS AMBIGUITY AND COMPLEXITY.



responded one student. “I don’t know any women gamers who haven’t.” Men also spoke of being harassed. “It’s an issue for everyone,” Sun-Higginson responded, acknowledging the broader spectrum of hostility that can include race and sexual orientation. Insults to men tend to be less intense, she said, and the indecent suggestions that men receive usually target their wives or daughters. “It’s women who are threatened more directly, and the volume is higher,” she said.

“Often when people write hurtful messages online, I don’t think they realize that there is a living, breathing human being on the receiving end,”

the director states in her press materials. “I hope that the film is a wake-up call for gamers and game industry folks who didn’t realize how bad this problem can be, and that it motivates people to address this issue and continue the conversation beyond the movie.”

Sun-Higginson encouraged the WPI audience to enjoy gaming while raising consciousness about sexism and inequality. “Just having these things in the back of your head and sharing your views with others can create positive change.”

STRESSED OUT OVER A BAD HAIR DAY?

A SIMPLE SNIP CAN TELL SCIENTISTS HOW BAD IT REALLY IS.

As a biomarker of chronic stress, hair cortisol concentration (HCC) holds a lot of promise for researchers in diverse fields, says Kymberlee O’Brien, professor of social sciences and policy studies. A mere three centimeters of hair clipped from an inconspicuous spot can reveal alterations in the release of cortisol, a well-known stress hormone, via the hypothalamic-pituitary-adrenal axis. “You get a three-month capture of how stressed a person has been,” O’Brien notes.

Previous methods, such as saliva collection, are “messy and imprecise,” she adds, requiring multiple samples taken at timed intervals. HCC is a quick, painless, one-time process that offers a reliable look-back at stress levels over time. She compares it to looking at growth rings on a tree.

O’Brien and her team have been using HCC in their studies of diverse populations, to measure the effects of discrimination, social exclusion, and living in high-risk environments. Medical researchers have found HCC to be a good predictor of heart attacks. HCC also collects in fur and feathers, and now environmental researchers are using it to assess the effects of climate stress and hunting on wildlife populations. Cortisol sticks around for millennia—it’s been measured in ancient Egyptian and Peruvian mummies—showing that stress is not a new phenomenon unique to our fast-paced lives.

Pending funding, O’Brien says she hopes to run related psychophysiological studies with both the WPI and Worcester communities to get a better understanding of the unique stressors these populations encounter, whether they are social, cognitive, or psychological. “With data in hand, I can then investigate strategies to buffer those unique chronic stressors that perhaps can become applied knowledge.”

PHOTO BY ERIC HASON



LINNEA PALMER PATON

LINNEA PALMER PATON '11 is a business and energy analyst at Jones Lang LaSalle, a real estate management company in NYC. Some may remember the energy she created during the protest of WPI's 2011 Commencement speaker, Rex Wayne Tillerson, the chairman, president, and CEO of Exxon Mobil Corporation. Weeks before the birth of her first child this past January, she took time to update the *WPI Journal* on what she's been doing since

making a name for herself upon campus as a voice for change.

Q. HOW DOES YOUR CURRENT CAREER MESH WITH YOUR ACTIVISM ON CLIMATE CHANGE?

A. I manage energy and utility accounts, with an emphasis on improving energy and water efficiency in buildings. In cities like New York where most of the population relies on public transit, nearly 80 percent of our carbon emissions is due to energy use in buildings. If we are to achieve our greenhouse gas emission reduction goals (NYC has committed to 80 percent reduction by 2050), we need to make our existing building stock significantly more efficient.

Q. LOOKING BACK, HOW DID YOUR EDUCATION BEST PREPARE YOU?

A. WPI gave me the technical background to

succeed in the energy efficiency world. That said, I wish some of the current energy-related programs had existed when I was in school. I see that WPI now has master's programs in Power Systems Engineering and Management, and the new Building Science major, which has a lot of emphasis on energy use in buildings.

Q. WHAT WAS THE ORIGIN OF STUDENTS FOR A JUST AND STABLE FUTURE?

A. My classmate Nathan Nesbitt and I founded SJSF in 2009, the year of the U.N.'s global climate talks held in Copenhagen. To draw attention to the event, and the need for real

action, we had sleep outs on campus. We wanted to point out the fact that the buildings we worked and lived in were primarily heated and powered with non-renewable energy. Remember, this was two years before the Occupy Movement would popularize this sort of action.

We connected with other students across the state through local outreach to environmental clubs and through PowerShift, a biannual conference for young people to learn about taking action on energy in their communities. Together we introduced a bill in the Massachusetts State Legislature to commit the state to moving to 100 percent renewable electricity by 2020. We worked with local faith leaders and community members to win support for the state bill from our local Worcester representatives.

Q. WHAT MOTIVATED THE PROTEST OF THE SPEAKER AT YOUR COMMENCEMENT CEREMONIES?

A. A member of the WPI campus Unitarian Universalist Fellowship, which I was a part of, came to me feeling depressed about the school's choice of graduation speaker. Given Exxon's stance on climate change, he felt it was symbolically inappropriate for the chairman of Exxon to be wishing us off into our future. At the time, other SJSFers and I felt there was a real need for more awareness about climate change on campus and a need to move people from inaction to action. We saw engaging people around the choice of graduation speaker as being an opportunity to do both.

Q. DO YOU SEE AN EVOLUTION OF THE STUDENT PROTEST MOVEMENT?

A. I am excited to see students becoming organized. In my experience, once I started organizing around one issue, it led me to become more connected to others. Culturally, there are a lot of issues that other movements such as the Civil Rights Movement and the women's movements took huge steps in addressing, but their work is not finished. It's exciting to see my generation taking these issues head on.



GRIER STRONG

When Jared Grier talks about returning to WPI next fall after a catastrophic injury left him a quadriplegic in May 2015, his excitement is overlaid with both a hint of trepidation and a steely determination.

"The current state of affairs is that I am doing pretty well," says Grier from his Connecticut home. "I'm continuing therapy and taking online courses to keep up with my credits. There are lots of challenges to overcome, but I have come to accept and be motivated by where I am at."

The WPI community has rallied around Grier. His fraternity, Lambda Chi Alpha, made sure at least two brothers never left his side throughout his local hospital stay. As he recovers, LCA is fund-raising with T-shirt sales and events like last fall's Watermelon Bash for Grier Strong, the

family's blog site for updates, information, and donations.

"We all joined a frat for different reasons, but we all care for each other in the same way," says LCA chapter president Andres Monterroso '16. "We wanted to do everything we could to make him comfortable and be there for him."

Even LCA alumni have given time, airline miles, and funds, enabling three brothers to visit Grier during his stay in Atlanta's Shepard Center, says fraternity brother Aaron Pepin '17.

"It has been amazing and that is putting it in the easiest way," says Grier of the support. Now, with Grier home, the brothers visit to just hang out. "It's integrating the old normal into the new normal," says Pepin.

An honest realization feeds Grier's resolve. "I feel as though my life has a greater sense of meaning, if you will," he says. "I have a drive to keep moving forward. My goal is to go back this coming fall and continue my education where I left off."

— Julia Quinn-Szcesuil

Learn more at grierstrong.org



GOAT
LOVE



PHOTO BY MATTHEW BURGOS



GOATS USUALLY DON'T GET MUCH ATTENTION, says Mike Preston '95, but on Founders Day, there's a lot of love going around. Preston brought his trio of goats to campus on Nov. 11, and admirers flocked to Reunion Plaza to meet them.

Kevin, Finn, and Bruce grazed calmly on cartons of hay as they were patted, praised, and photographed. "I was thrilled to see how many people loved interacting with the goats," says Preston. "We were showered with attention. The students made me and my goats feel like celebrities. To me, they're fun, but are just goats. As long as they're fed, they're happy."

It was a festive afternoon, with the tantalizing aroma of grilled cheese sandwiches wafting from the other side of the Fountain, where members of the student-run business Gompei's Goat Cheese ("Made by the Smartest Goats in the World") manned the griddle to raise funds for a new student scholarship. In between, WPI's revered "old goat" – Bill Trask – read historical excerpts from *Two Towers*.

"We felt welcomed and at home," says Preston, who follows in the hoofprints of Steve Rubin '74, whose Nubian dwarf goats turned out on Founders Day until their master passed away last summer.

Later in the day – which marked the conclusion of the yearlong celebration of WPI's 150th anniversary – the campus community gathered for a celebration of Rubin's life and his contributions.

THE (WORD)PLAY'S THE THING

IN SHAKESPEARE, NOT STIRRED, PROFESSORS BLEND HUMOR AND LITERATURE TO BRING THE BARD TO A WIDER AUDIENCE

What do you get when you mix Shakespearean scholarship with liquid refreshment and add a dollop of fun? *Shakespeare, Not Stirred: Cocktails for Your Everyday Dramas* is a recent publication by associate professor of English Michelle Ephraim and her friend and colleague Caroline Bicks, an associate professor of English at Boston College. The book blends characters, quips, and a liberal dose of puns, all inspired by Shakespearean text and characters. Cocktails include "Shall I Campari to a Summer's Day?" and "Othello's Green-Eyed Monster." In addition to drinks, there are recipes for "Crudit  of Errors" (featuring twin dips), a basic bread called "Romeo's Loaves at First Sight," and "Puck's Magic 'Shrooms," which could be made even more dreamy with WPI's own Gompei's Goat Cheese.

Both professors teach The Bard, among other topics, and have been friends since they met at a Shakespeare seminar at Harvard 12 years ago. And, being teachers, they couldn't resist including in their book bite-sized portions of education, called "MiniBards," written with a wink and a cocked eyebrow.

Although they are not professional mixologists, the authors spent hours formulating, testing, and naming each recipe. "Often we'd spend days on a single title and then have to scrap it and start again," says Ephraim. "It's like what we tell our students. Sometimes you have a really great idea but you have to cut it because it doesn't work."

The book brings Shakespeare down from the ivory tower and into the messy stuff of everyday life, which is where readers can relate, Ephraim explains. "What I have found is that my students, like all people who experience Shakespeare, get excited about the personal connections and the human experience [in the plays]," she says. "Honestly, Shakespeare is not for the elite – he wrote for everyone."

–Cate Prato



ILLUSTRATION BY WILL SAMATIS

FISH ANTIFREEZE PROJECT IS A GEM

The proteins that keep fish from freezing to death in the frigid waters of Antarctica could be adapted to prevent serious infections in hospitalized patients, based on the work of WPI's iGEM 2015 Team that recently earned a Gold Medal at the International Genetically Engineered Machine (iGEM) competition in Boston. iGEM is a global synthetic biology program that challenges students to create biological tools that work within living cells to produce a desired product or process. This year, some 2,700 students on 259 teams from around the world gathered to present their projects and compete for honors. Each team started with a standard tool kit of more than 1,000 biological parts that iGEM calls BioBricks; these are mostly sequences of DNA known to do specific things in cells.

The WPI team members were intrigued by the properties of antifreeze proteins (AFPs), a structurally diverse class of proteins produced by certain organisms to prevent water molecules from forming ice crystals in their

bodies. Their Aha! moment came when they learned of an AFP that prevented the bacteria *Staphylococcus aureus* from forming a biofilm—the first step that leads to a staph infection. They went on to characterize 20 different antifreeze proteins isolated from 16 organisms, including fish, insects, and plants, to test their ability to prevent the bacteria *E.coli* from forming biofilms on lab plates.

Using molecular methods, the team cloned the genes for the proteins, inserted those genes in *E.coli* cells, and measured the expression of the genes and the impact the antifreeze proteins had on biofilm production. The students found 12 antifreeze proteins that inhibited biofilm formation and, surprisingly, eight proteins that enhanced it.

Blocking biofilm production is important for human health. Coating surfaces of catheters and other invasive medical devices with antifreeze proteins, for example, could help prevent serious infections in hospitalized patients. Similar applications could be used to prevent bacterial contamination in food processing facilities.

According to Natalie Farny, assistant teaching professor of biology and biotechnology, and lead advisor for the team, “What they have discovered could become a powerful regulatory process, so WPI has filed a preliminary patent application on the technology.”

—Michael Cohen

KEEPING PLANES FROM CRACKING UP

With an eye toward making air travel safer and more cost-effective, WPI researchers are developing tools and technology for early detection of cracks in metal aircraft components. The work, headed by Diana Lados, founding director of the university's Integrative Materials Design Center (iMdc), has the potential to keep military aircraft in service longer while improving safety and on-time performance for commercial airlines.

The research uses sophisticated imaging technology to view how cracks are initiated and propagate at the microscale while metal samples are stressed in a servohydraulic testing machine. “We can identify damage hot spots in the microstructure that will help us better engineer our materials for optimized structural performance,” says Anthony Spangenberg '12, a PhD candidate who is part of the team.

Funding for this research comes from the U.S. Army Research Office through the highly competitive Defense University Research Instrumentation Program, with additional support from industry. Lados says the monitoring technology developed in her lab can be incorporated into sensors that could be attached to critical components to monitor aircraft structural health continuously. Coupled with predictive algorithms based on the state of stress and the rate of crack progression in a component, it may be possible to schedule aircraft servicing only when needed, which could significantly reduce costs and out-of-service time.

“This technology, with its multiple uses, would bring important advancements to the materials and aircraft industries, contribute to increased safety and on-time performance, and undoubtedly save time and money for aircraft operators and, ultimately, the airlines,” says Lados. “I think this research will go a long way to enhancing the way the aircraft industry views its inspection and monitoring systems.”



[TURNING*point*]

CHARLEY LINCICUM'S ('00 MS OIT) turning point came after 47 years as an engineer in and around manufacturing. Finally pushing himself away from the computer and turning to the outdoors, he now finds himself an Essex County Greenbelt volunteer nature guide, and a Danvers Rail Trial committee chair.

HOW DID YOU BECOME INVOLVED WITH MASS AUDUBON?

I've always been an outdoor person away from work—biking, kayaking, hiking, fishing. I've been a member of the Audubon Society since 1985 but never had much time to become a nature guide, though I have taken part in bird counts and census.

TELL US ABOUT YOUR NEW ROLE.

I teach classes, work special events throughout the year, and on Sundays I guide people through the sanctuary. I develop the classes I teach, and create the visual aids required.

WHAT'S WPI'S ROLE IN ALL THIS?

I earned my master's degree in operations and information technology back in 2000. WPI taught me how to teach and train people, as well as understand the human factor of work. This came in handy all through my career, but more now in my nature guide function.

WHAT WAS YOUR TURNING POINT?

That came at my last job (MKS Instruments) when I saw people getting let go because business was off and the politics of upper management put them in a bad position. When I looked at this, and saw how unhappy it made my wife—coupled with health issues (I had thyroid cancer and I'm currently fighting RA)—it was time to do what I wanted to do rather than what I needed to do.

WHAT'S THE COOLEST THING YOU'VE SEEN IN THE IPSWICH SANCTUARY?

One of my best experiences was when I was a back guide looking for owls. We found two species of owls but we also came across three beavers. This may not seem a big deal, but it was so exciting, it took hours to calm down afterward.

—Doreen Manning

A TOP EXECUTIVE AT UTC AEROSPACE SYSTEMS, GAIL SMITH BAKER '84 PROVES BALANCING HARD WORK AND FAMILY CAN LEAD TO SUCCESS





A CAREER IN BALANCE

BY CHELSEA LOWE | PHOTOGRAPHY JIM PERRY

GAIL BAKER HAS TRAVELED THE WORLD, HOBNOBBED WITH DIGNITARIES, AND SUCCEEDED IN WHAT WAS ONCE A MAN'S WORLD. BUT WHAT SHE PRIZES MOST IS FAMILY. WPI ENDED UP HELPING WITH BOTH: SHE MET HER HUSBAND, RAY BAKER '85, WHEN SHE JOINED THE RUGBY TEAM "ON A WHIM."

"I'm of average height and small frame, yet I played rugby at WPI and was captain of the women's team for two years," she says. "That tidbit usually surprises people.... Joining the rugby team was something I did to try to meet people—and as it turned out, I have maintained some of those friendships to this day." Gail and Ray have three thriving children, ranging in age from 17 to 22.

Baker serves as senior vice president of engine and environmental control systems, one of eight business units within UTC Aerospace Systems (UTAS), a \$14.3-billion aerospace components supplier. UTAS is part of United Technologies Corp. (UTC), a \$57B international conglomerate, and she's considered one of UTC's top 100 executives. She graduated just a dozen years after the university sent its first female undergraduates out into the world, and while she has experienced some sexism, in part she made her own luck.

"I wouldn't say I had to fight my way to the top," Baker says, "but instead worked hard and hoped



that my work ethic would be noticed—and it was." She adds, "That's not to say I didn't have my challenges along the way. There are difficult people in every industry, and a woman in engineering is still an oddity for some."

Baker is quick to say, "Overall, I've been given more opportunities than I ever dreamed about." Whether these breaks were given or hard won is a matter of speculation. "Mostly, I've refused to be deterred by people who think I don't belong, and instead have worked to prove them wrong."

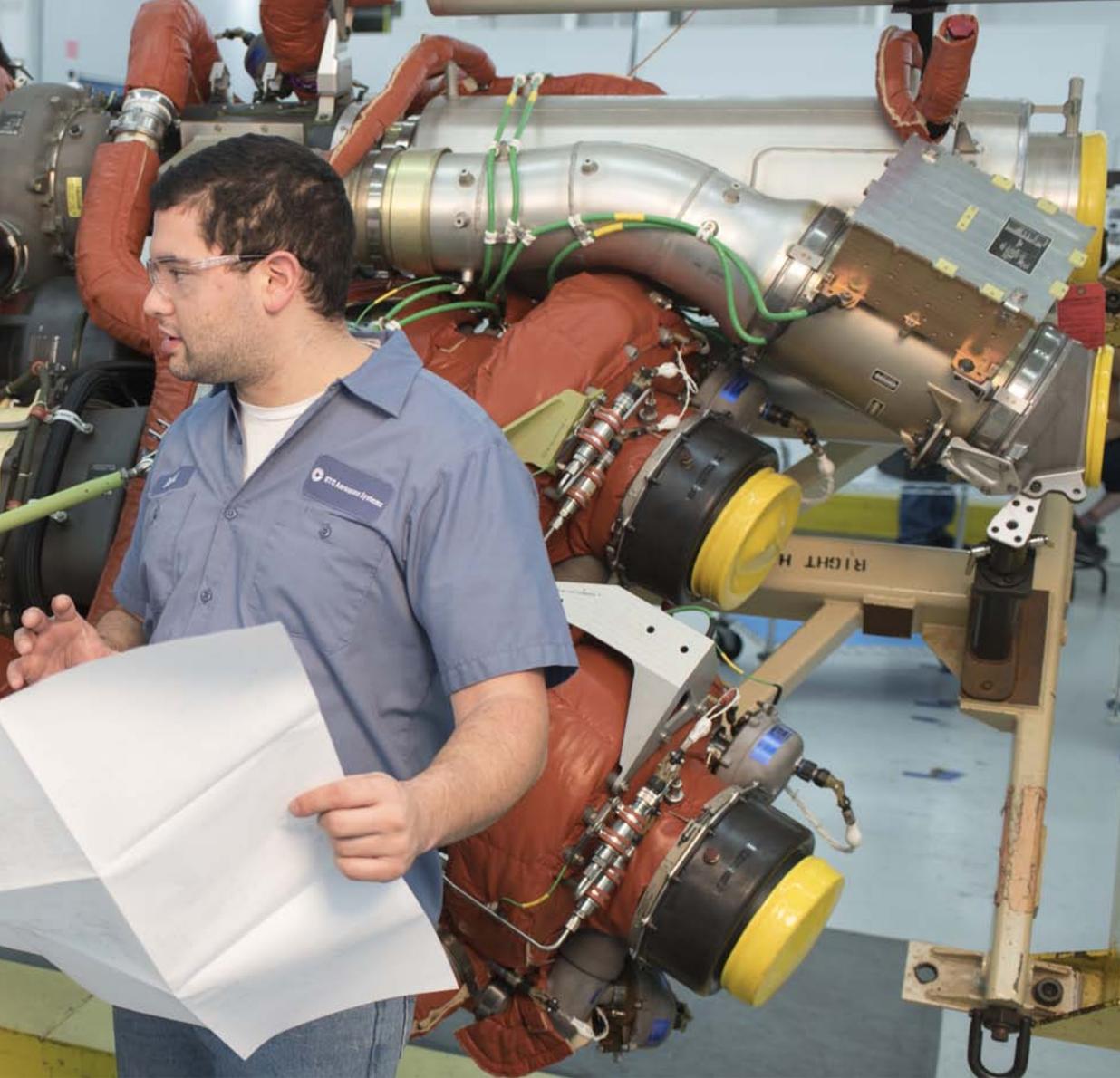
Early in her career, a customer proudly showed off an embroidered pig on his jeans. "He was a male chauvinist and wanted everyone to know. Imagine how

I felt in my early twenties sitting across from this guy. But I wouldn't let him derail me and we ended up having a very productive working relationship."

Then there was the time a manager requested estimates on the cost of producing a structural frame for a subsystem then under development. "It was a complicated part that required several machining operations to meet final specifications. A woman in our manufacturing group came up with the estimate. When we presented it, the manager said, 'what does she know about estimating the cost of this part? I'm sure if I wanted to know the price of a bottle of shampoo, I could ask her.' Needless to say, this

was a tough guy to work with—but some might say I have a stubborn streak. I would not walk away. After a lot of hard work and some really difficult encounters, I eventually won him over, and he presented me with a Special Recognition Award when the project wrapped up."

Working in a traditionally male environment, however, presented one indisputably uncharted challenge: "There were very few women engineers at Hamilton Standard [which in 1999 became Hamilton Sundstrand and, later, with the acquisition of Goodrich Corp., UTC Aerospace Systems] when I started my career, so it was difficult to know what to do [about balancing work and family] when



I had my first baby.”

Baker engineered a solution, extending her time off and returning to work roughly 30 hours a week. (As business needs arose, she transitioned between part-time and full-time over the course of having three children, and eventually returned to work full-time.) Her boss, she says, “realized that I needed some flexibility in the short term in order to continue with my career. He had three kids and knew that it’s difficult to balance a demanding career and a family.”

The company’s foresight paid off. “Because he gave me that flexibility, I made sure to show my ‘value-add,’ and worked more when the job required it. I wanted

the company to feel they were getting a good deal, as I was most appreciative of this arrangement.” Now, she says, she advises young female engineers that “there’s no right solution for everyone, you just have to find the right balance for you.”

That spirit of determination, cooperation, and balance has helped her—and her company—soar: “About three years ago, I was involved in an intense negotiation to win new business on the Embraer E2 aircraft,” Baker says. “The negotiation started on a Sunday afternoon in Sao Paulo, Brazil, and went all through the night and into the wee hours of the morning. When the competition was decided at around 5 a.m.,

we had won approximately 23 billion dollars of new business over the life of the program. It was the biggest win for my company up to that point.”

Mike Dumais (then president of Sundstrand division, now senior vice president of corporate strategy and development at United Technologies) is more specific. He calls Baker “instrumental” to the company’s winning a wide range of systems on the Embraer. She did that, he says, “by spending countless days in Brazil sitting with the customers, understanding their needs, understanding what type of value proposition we’d need to provide, and she made sure we were on target with our proposal” on the

technical side. On the customer side, Dumais says, “I think her personality and the customer’s desire to work with Gail pushed us over the top, and we were able to win content or systems that will result in hundreds of millions of dollars in sales for UTC over the next 20 years.” In both realms, he says, “Gail distinguished herself to the point where very senior leadership of Embraer, one of our major customers, would ask to continue working with Gail.”

Like Dumais, UTAS president Dave Gitlin praises Baker’s unique combination of deep technical expertise with very strong customer-relationship skills. “This gives her the ability to discuss complex technical issues with the customers,” he says, “while building and maintaining long-term relationships that are critical to the future growth of our business.”

Baker began working for Gitlin in 2010, when the aerospace customers and business development organization was formed as part of a broader company reorganization.

“A few years ago,” Gitlin says, “we had a very important customer who was unhappy with our performance on key field issues.... Gail quickly got her arms around the issues, developed a plan to identify the root cause and corrective actions, and personally helped turn the relationship around. Today our relationship with this customer is excellent, thanks in large part to Gail’s efforts.”

For the past 20 years, Baker has served as mentor to men and women, helping guide them



“I WILL ACCEPT ANYONE’S INVITATION FOR A CHAT TO DISCUSS THEIR CAREER,” SHE SAYS. “I REALLY DIDN’T HAVE MENTORS WHO ‘LOOKED LIKE ME’ WHEN I WAS COMING UP THE RANKS, SO I UNDERSTAND HOW HAVING SOMEONE TO BOUNCE IDEAS OFF CAN BE INVALUABLE.”

through work-life balance challenges, business-development questions, strategy, and personal problems.

“I will accept anyone’s invitation for a chat to discuss their career,” she says. “I really didn’t have mentors who ‘looked like me’ when I was coming up the ranks, so I understand how having someone to bounce ideas off can be invaluable.”

Baker says she keeps confidences and carries “no hidden agenda,” and is happy to see and take part in mentee successes.

Although she had few business mentors, she did not lack for strong, supportive advisors at WPI: chemistry professor and rugby team advisor Herb Beall, with his wife, Barbara, “often invited our team into their home for social

events,” she says. “He had a very insightful way about him and acted as a father figure to us all. He often offered me sage advice and I valued his council.” They remained in touch until his death in 2003.

“Van A [Dean John van Alstyne] was my advisor and professor for diffy Qs [differential equations]. He was one of the first people I met at WPI and we remained friends until his death a few years ago. He had a photographic memory and had the entire course offering and schedule for each class memorized. He essentially did all of the scheduling for each WPI student without a computer. He was also an awesome teacher and managed to keep each class engaged in what could be a challenging and somewhat dry topic.

“Besides his genius, van A had a heart of gold,” she says. “He used to bake cookies for advisees or students if they were in need of moral support, such as during our senior competency exam or some other critical review. In my senior year, I had mononucleosis for the majority of the last two terms and had to finish my MQP and take my competency exam while quite ill. Add to that some health issues in play back home, and I was struggling to keep it all together. I remember the day he presented me with a delicious tray of home-baked chocolate cookies. They were the best cookies I’ve ever had or probably will ever have.

“After I graduated, we kept in touch – and van A sent a birthday gift to each of my children until he passed. Without fail, these gifts showed up exactly on my kids’ birthdays,” she says. “I guess that was another example of his scheduling genius.”

Her WPI experience supported her in expected and unexpected ways. School, she said, helped her understand the importance of learning and working on a team.

“I had great partners for my IQP and MQP.” The former concentrated on asbestos and related illness – she’d developed an interest in the subject during winter and summer breaks, when she worked as a paralegal’s assistant at a law firm that served as lead defense council for a former asbestos manufacturer.

Baker did not always know she would become an engineer. Growing up in West Hartford, Conn., she knew only that she liked math and science. At the all-female University of St. Joseph (then St. Joseph College), she found most of her classmates studying for nursing or teaching careers, and she felt like “a fish out of water.” Physics professor Steve Griffin recommended his own alma mater: WPI.

“When I started at WPI,” Baker says, “I immediately knew it was the right place for me. I was not an oddball there for liking math or science.” She pursued a degree in mechanical engineering “with a slant toward mechanical design.”

Gail Baker’s regrets are few. She’s “traveled the world, meeting with leaders from just about every aerospace manufacturing company, worked with some of the brightest engineers in the industry, learned what leadership is from some really inspirational leaders, and met with policy makers in congress and the armed services while advocating for aerospace initiatives.”

For Baker, balance was hard won – but worth every step. **J**

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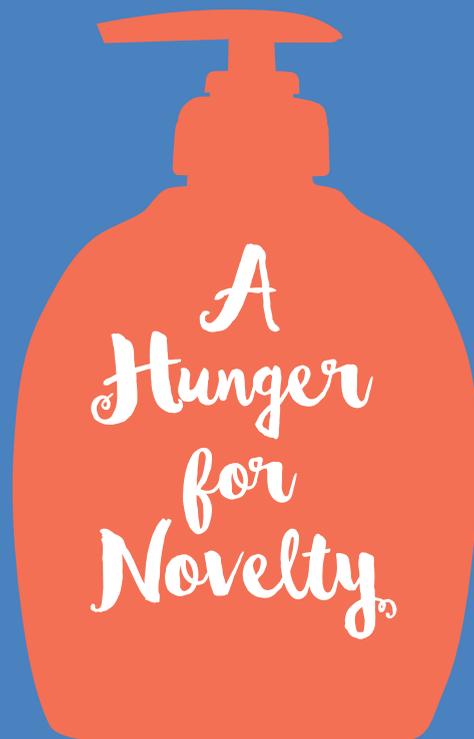
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— John Schmidt '64







HANDS-ON LEADERSHIP HELPED STEER *Menelaos Tassopoulos '85* (MS CM) TO SUCCESS

BY ANDREW FAUGHT



Its sun-drenched Mediterranean shores belie a less picturesque truth: Greece is a nation battered by economic and humanitarian crises. Three financial bailouts in five years saved the country from bankruptcy. Add to that a historic refugee crisis, which last year saw 2,000 Syrians arrive each day, fleeing their country's civil war.

"What we need now is a glimpse of hope," says Menelaos Tassopoulos, whose own educational and professional odyssey took him on a six-year sojourn from his native Greece to the United States.

"Greeks, although resilient, are becoming a bit hopeless, I think.

At some point they – especially the younger people – need to see the end to the tunnel. I'm afraid this is yet to come."

While so many of his fellow countrymen have left for better opportunities abroad, Tassopoulos, CEO and controlling shareholder of Athens-based Papoutsanis S.A., eastern Europe's largest soap producer, remains. The lure of his homeland, like the siren song of mythology, exerts its incontrovertible pull.

"I love the people, the weather, the islands, the sea, and the countryside," he says. "Since I am here, I am optimistic."

For all of Greece's economic tumult, Tassopoulos has driven publicly traded Papoutsanis to relative prosperity, after the company nearly went bankrupt in 2010 because of shaky business strategy and subpar management. In fiscal year 2014, the firm's turnover (net sales) was about \$20 million.

Papoutsanis exports nearly half of its products – which include olive bar soaps, shampoos, and liquid soaps – to hotels and foreign markets. Notably, the company counts among its American clients Kiss My Face, a skin-care product line, and Sysco Guest Supply, the largest hotel amenities supplier in the world.

His success stems in no small part from his days at WPI, where Tassopoulos earned a master's degree in chemical engineering. He'd always planned to study in the United States, and he applied to WPI because of the university's reputation. "And I liked the idea of living in Massachusetts," he says. "Massachusetts, and New England in general, have managed to integrate, in the most balanced way, all the key values and principles that make the States excel."

Tassopoulos got more than just a technical foundation during his days in Worcester. Witnessing the university's commitment to project-based learning gave him early exposure to the kind of hands-on approach that would characterize his later leadership.

At Papoutsanis, he cut costs across all company operations and reestablished good working relationships with business partners, including customers, suppliers, and banks. He also motivated employees by allowing them to have a hands-on approach to business.

WPI, for its part, made Tassopoulos want to push his educational boundaries.

“WPI taught me the discipline of thought, and gave me a hunger to advance my research further,” he adds. “The intellectual challenges I encountered were the ones that inspired me to continue my graduate studies. It was the work I did in zeolite technology with my advisor at the time, Professor Bob Thompson, that introduced me to academic research and science in general.”

WPI was just one of many stops on his travelogue. He attended the Institute after earning his undergraduate degree at the National Technical University of Athens. “I applied and was accepted at some top U.S. universities as an undergraduate,” he says, “but at the time I decided it was better to complete my undergraduate studies in Greece and move to the states at a—hopefully—more mature age.” He went on to earn additional master’s degrees at Columbia and Yale, before receiving a doctorate in engineering and applied science from Yale.

In 1992 Tassopoulos returned to Greece, where compulsory military service requires all men between the ages of 19 and 45 to enlist. He spent a year at the Hellenic Air Force Academy, where he was in charge of information technology.

flavors for the food industry. Later, he worked for a steel conglomerate for 13 years.

Tassopoulos regularly draws from his American schooling. “My U.S. education shaped my career,” he says. “I learned how to progress things, manage

different people, and get the best out of everyone. I developed a hunger for novelty. It was an invaluable experience.”

His leadership skills came to the fore in particularly dramatic form in 2009, when he ran a private equity distress fund that was set up within Eurobank—the largest private bank in Greece at the time.

Tassopoulos stayed at Eurobank until 2010, at which time he and a

partner bought out the then-founding Papoutsanis.

It was a year after Greece’s financial woes surfaced and “at the time we didn’t expect it to last so long,” he says.

Hard Times, Hard Choices

After eight years of financial upheaval, Greece is still trying to cast off the shackles of austerity measures and endless bad news. The unemployment rate is 25 percent, and 30 percent of Greek citizens live below the poverty line. The country’s population, now 11 million, has shrunk by 400,000 in less than five years. Pensioners have seen their monthly payments trimmed, while Greece’s politicians are powerless because of their Eurozone membership.

Tassopoulos has escaped many of these ravages, but he doesn’t have to look far to witness the challenges at hand.

“I have seen friends lose their jobs, husbands being forced to seek employment abroad, and families being separated,” he says. “And perhaps the most troublesome, I’ve seen lots of young people with a lot of potential leave the country. I’m afraid we will see the repercussions of this brain drain much later, because at this time we cannot really assess what would have happened if they had not left.”

But the married father of three has reason for hope. His children, ages 24, 21, and 18, are subject to their father’s guiding philosophy.

“Honesty, patience, and perseverance,” Tassopoulos says. “And always give your best.”

In Greece and elsewhere, they’re words to make a difference by. **J**

“I learned how to progress things, manage different people, and get the best out of everyone. I developed a hunger for novelty. It was an invaluable experience.”

It was a temporary diversion from his life’s calling: a business career. He went on to work for a subsidiary of Papoutsanis, which manufactured fragrances for the cosmetics industry and

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Russ Bozek, Class of '03

"I give to WPI because I recognize the sacrifice of those before me. I achieve not alone, but with so many others: family, friends, teachers, fraternity brothers, career mentors, and the WPI community. I appreciate the stewardship of those before me, so it's my obligation to give my time, talent, and treasure to ensure opportunities—if not better opportunities—are offered to future WPI students and alumni."

Russ Bozek, the youngest of four children, received financial aid when he was accepted to WPI. He also was the honored recipient of WPI's FIRST robotics full-tuition scholarship when the Entergy/Plymouth North High School robotics team received it at the FIRST national competition. "It was a golden ticket," Russ adds, and that's why he gives back faithfully to the WPI Annual Fund. He is currently a director of special projects in the Claims Strategy & Innovation department at Liberty Mutual in Boston.

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IN THE FIELD OF PERFORMANCE MANAGEMENT, *Bob Behn '63* IS A PLAYER AND A SCHOLAR

BY JOAN KILLOUGH-MILLER

What do subatomic particles, baseball, and management have in common?

When Bob Behn steps up to the podium to plug his course at Harvard's John F. Kennedy School of Government, his opening pitch is a curveball. "My name is Bob Behn and my course is the most important course at the Kennedy School." Next, he acknowledges that his colleagues hold the same belief about *their* courses, "But they are wrong."

What are prospective students supposed to make of this audacious assertion? Behn quickly enlightens them: A course taught by a professor who doesn't believe wholeheartedly in its importance is not worth taking.

Behn's work—as an academic, author, management consultant, and sometime baseball pundit—is liberally sprinkled with audacious assertions, provocative questions, and vexing contradictions. He delights in poking holes in conventional wisdom. Failure has to be an option. The annual performance appraisal actually shelters poor performers. Don't shoot for the stars—aim for ratcheting up performance in manageable increments.

To fully appreciate his point of view, there are two things you should know about Robert Dietrich Behn:

1. He still has his freshman physics textbook on his bookshelf—Sears & Zemansky *University Physics*, 1955 edition, with his name and Morgan Hall room number inscribed on the flyleaf—and it is *not* gathering dust.

2. His Harvard email address doesn't follow the standard first-initial + last-name format. To reach him, you'll need to type "redsox" before the @ symbol. His voicemail promises to return your call "when the Red Sox win the World Series again."

What do subatomic particles and baseball have in common with the management of a public organization? There's no snappy punchline here. There's just the mind of Bob Behn, who brings an engineer's eye, a physicist's spirit of inquiry, and a sports fanatic's passion to every question he encounters. Drawing from familiar scenarios, he weaves together memorable analogies to fashion elegant explanations of hard-to-articulate management principles. His teachings and writings on performance management prepare the leaders of tomorrow to run government and nonprofit agencies in a way that mobilizes workers to produce results.

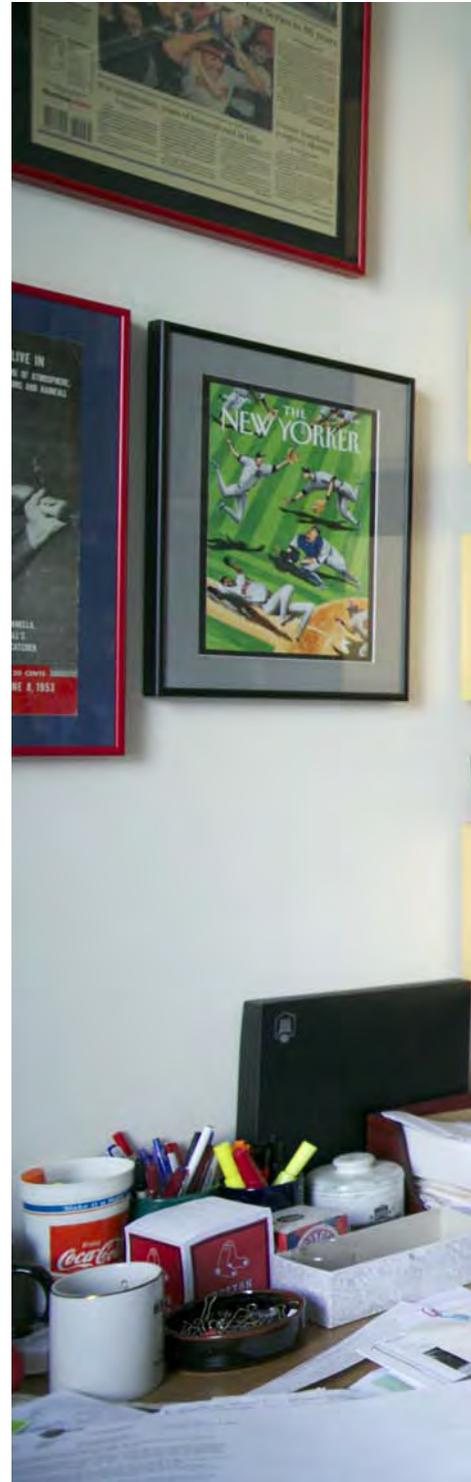
Practical Questions

To illustrate his theories about management, Behn frequently reaches back to his roots as an undergraduate physics major. Quarks, chaos theory, and Robert Goddard become engaging metaphors in Behn's writings. WPI surfaces in the second footnote of a 1996 paper he published in the *Journal of Public Administration Research and Theory*, or J-PART. He cites WPI as "a very practical place" that got him interested in taking on practical questions. In an earlier paper, he describes how physicists postulated the existence of the neutrino as a way to describe and predict observable phenomena in the physical world. Management theory, he writes, has a similar need for comprehensible metaphors.

What stood between him and a career in solid state physics, Behn says, was that "at WPI I didn't distinguish between metaphor and reality. We're given this idea of the atom that looks like a planetary system, with the electrons orbiting like planets. I got stuck on that, and had trouble moving on to the next level of conceptualization."

Along with his physics textbook—and an engineer's drive to understand how things work

and how to fix them—he took with him leadership qualities acquired as president of Theta Chi fraternity, editor-in-chief of the 1963 *Peddler*, and captain of the debate team. "At WPI, I learned how to run a meeting, how to think on my feet, and how to always be anticipating and strategizing about the next





step,” he says.

In the late 1960s, while earning a master’s and doctorate at Harvard, Behn underwent two important phase changes:

1. Initially intending to study solid state physics and electromagnetic theory, he transitioned to applied mathematics, made some forays

into the business school, found the business world was not for him, (“I’m a public sector kind of guy”), and, over time, reinvented himself in the realm of public policy.

2. Originally a Brooklyn Dodgers fan from New Jersey, he was converted by the Red Sox’s spectacular coup in the final

game of the 1967 American League Championship, a season that some say reinvented the team and the sport.

Behn calls himself “self-educated” when it comes to management and politics. At Harvard, he became connected with the Ripon Society, working his way up to executive director and bringing

out his first book, *Lessons of Victory*, an analysis of Richard Nixon’s 1968 presidential election. He was tapped by Massachusetts governor Francis W. Sargent to serve as assistant for urban affairs, and served as scholar-in-residence at the Council for Excellence in Government in Washington, D.C. For nearly three decades he taught

Behn takes his baseball scholarship as seriously as his academic discipline.

at Duke University's Terry Sanford Institute of Public Policy, where he was director of its Governors Center.

Believe in the Dream

In 2000 Behn declared himself a “free agent” and returned to Harvard as a senior lecturer. Sitting in his office off the sparkling glass rotunda that anchors the Kennedy School's Taubman Center, he talks easily of the twists and turns in his journey from the classrooms and labs of Olin Hall to here. “I don't regret any of it, at all,” he says. The ceiling-high bookshelves are crammed with his publications, and baseball memorabilia covers most of the surfaces.

One frame showcases his full-page article from the *Boston Globe* (which originally ran in the *Wall Street Journal*) called “A Professor's Ode to Baseball.” Behind him hangs a poster autographed by filmmaker Ken Burns (creator of the PBS documentary “Baseball”). Burns teamed up with two baseball luminaries—historian Doris Kearns Goodwin (who described growing up with the Brooklyn Dodgers in her memoir, *Wait Till Next Year*), and ESPN journalist

Peter Gammons—for a standing-room-only forum at the Kennedy School. Who better to moderate a panel discussion on baseball's place in the American consciousness than Professor Bob Behn? He calls the experience “pure joy.”

Behn takes his baseball scholarship as seriously as his academic discipline. His CV is peppered with articles on the sport for popular publications, but baseball is also the backbone of many of his professional papers. In one, he compares the utility of metrics for both fields; another analyzes the management strategy that successfully brought Jackie Robinson and other players of color into the major league in an era of racial segregation.

“In academia, your writing can get pretty boring,” says Behn. “Drawing from something outside of the way people would normally think about this livens it up. And it gives the reader something less abstract to connect with.”

Pre-game Strategy

Sign up for a class with Bob Behn, and you'd better arrive prepared. If you don't walk into the first class brimming with ideas about

the assigned case study, you've already struck out. He'll walk into the room and ask outright: “What should the manager in this case do?” There's no time for warm-up. His graduate students are only months away from a post at the helm of an organization. The working managers who attend the Kennedy School's weeklong Executive Education program that Bob chairs (Driving Government Performance) are on a fast track to improve their leadership. And in December, when the nation's newly elected mayors come to Harvard to up their game before taking office in January, Behn is there in the dugout to coach them.

Although his diploma pre-dates the WPI Plan, Behn's teaching style is very much practice-based. At Duke, he employed something that sounds a lot like an IQP—loaning out his students as unpaid consultants to tackle policy problems for government agencies, and requiring them to turn in a professional report to their “clients.” His students are forewarned that they will be asked to do three things they may dread: think, write, and collaborate.

At his 40th reunion, Behn noted

that most of his classmates were already retired, with two exceptions: those with their own businesses, and the academics. Today, at 74, when he's not teaching or researching his eighth book, he's busy fielding speaking engagements and requests from journalists, and trying to convince his wife, Judy, that he actually has cut back to part-time.

“I think, when I die I still won't have exhausted my file of ideas for columns,” he says, referring to his online “Bob Behn's Performance Leadership Report,” which for a dozen years has been serving up bite-size nuggets of practical wisdom. If everyone just used their common sense, would they need all that guidance? “The simple answer is that common sense is not that common,” replies Behn. “Each of us brings our own experiences and our own preconceptions. A standard preconception about management is that people give orders and things happen. In reality, people may not behave in the way you predict.”

In Behn's elegant universe, public management is like engineering—an ideal combination of art and science. **J**

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Pichaya Chantranuwat '01

Fire Safety EVANGELISM



Thailand's first certified fire protection engineer sparks
a new focus on fire safety in his home country

By Ted Flanagan



Almost a half century before Thailand's first certified fire protection engineer was born, the Triangle Shirtwaist factory in New York City went up in flames.

On March 25, 1911, a fire within the top floors of the 10-story Manhattan building took the lives of 146 garment workers, including 123 women; most of the victims

were young immigrants toiling to make women's blouses.

It remains one of the worst industrial fires in world history. But eight decades after that

tragedy, as his own country had reeled from several fatal workplace fires, Pichaya Chantranuwat '01 (MS FPE) wondered at the way history repeated itself.

"[The] fires were the same lesson being learned...years apart," he says.

The tragedies in Chantranuwat's home country were worsened in ways eerily similar to those that contributed to the Triangle factory's horror – most egregious being locked exit doors that kept workers from taking unapproved breaks, making it harder to flee the flames.

An electrical engineer by trade and training, Chantranuwat had a working understanding of portions of fire protection and codes, which were wholly inadequate in Thailand at the time. He noticed other issues in Thai industrial fires – for example, fire exits appeared in building plans but were never constructed, and many buildings' reinforcing steel girders were left uninsulated, causing them to collapse when exposed to extreme heat.

Any of these deficiencies might have been caught by fire protection engineers during building construction, save for one fact: there were no fire protection engineers in Thailand at the time.

Clarinn Call

If anticipating problems before they occur is one of the hallmarks of the engineer, Pichaya Chantranuwat was born to the profession. And as the rolls of those killed by fire in his country grew longer, he asked himself the elemental question: *Why?*

He used the loss of life and

property as motivation to delve deeper into Thai building and fire codes, and then to compare them to the existing standards in the United States and elsewhere. The answer was clear.

In a stroke of serendipity, shortly after a particularly horrific fire in the early 1990s, he collaborated with a team of Swedish fire prevention and protection experts to analyze and improve conditions at Bangkok's main port.

Chantranuwat was already well-versed in many guidelines of the National Fire Protection Association (NFPA), a U.S.-based trade organization with international reach that, among other things, provides standards and codes for fire protection and prevention. His work at the port, combined with his visceral reaction to the fire-based tragedies in his homeland, pressed him into a deeper examination of local and national regulations in his own country.

The results weren't encouraging.

"We quickly realized that Thai building and industrial codes lacked important fire safety requirements, especially compared to NFPA standards," he says.

His work eventually led him to become Thailand's first certified fire protection engineer, tasked not only with setting up the first graduate program in FPE at Kasetsart University in Bangkok, but also with helping develop some of the country's nascent building codes.

Future in Fusion

A married father of four, Chantranuwat was born in 1960 in Chonburi Province, which,

perched on the Gulf of Thailand, is home to one of the country's busiest deep-water ports and the famous Pattaya Beach.

He attended Assumption Sriracha College through middle school before heading off to Bangkok for high school and college. In 1983, he graduated from Ladkrabang College at the King Monkut's Institute of Technology with a bachelor's degree in electrical engineering.

Thanks to his work with the Swedish team at the port, and on projects elsewhere, his skill and expertise was acknowledged with a royal appointment to the Engineering Institute of Thailand, where he developed a Thai fire protection standard in 1996.

Inspired by the work, and seeing a national need that wasn't being adequately addressed—and with the immense loss of life in recent industrial fires on his mind—Chantranuwat created Fusion Fire Safety in 1996.

Initially known as Thailand Risk and Fire Protection Engineering Consulting Services, the company was the first of its kind in that country.

In the subsequent 19 years, Fusion Fire Safety has lent its fire protection engineering and design review services to a variety of major projects, including the new Thai Parliament building, the Thai stock exchange building, several hospitals, numerous high rises and factories, an airport terminal, a dormitory for the 2005 Asian Games, and scores of elevated and underground rail platforms.

The company offers services in all phases of building development, from concept and design,

to construction and maintenance. Included among its services is the design of passive and active fire protection systems prior to construction; fire- and life-safety review during the bidding process; overseeing installation and testing of the systems during construction; and continued maintenance and testing after construction is completed.

Fusion Fire Safety also assists in fire investigations. Chantranuwat was recently asked to investigate a fire in a large corporate headquarters.

"In 2015 there was a major fire in the head offices of one of the country's top three banks," he says. "I was immediately called in to investigate the effectiveness of the fire protection systems, including pressurized fan systems for the stairways, automatic sprinkler systems, aerosol fire protections, [all the elements] that created the huge amount of water damages and downtime."

Up to the Challenge

In 1999, through two of his professors in Thailand, Chantranuwat learned about WPI's pioneering graduate program in fire protection engineering, led by now-emeritus professor David Lucht, who became the program's first full-time director in 1978. WPI was the only university to make its FPE graduate program available via distance education.

Chantranuwat says he loved the fact that he could take advantage of one of the world's best fire protection engineering programs while being able to undertake half of his studies at home in Thailand.

Of all the things the program

prepared him for, one of the most important was the way it allowed him to anticipate future challenges, as new building materials and processes stretch the current protection technology.

"I am thinking that we will see hundreds of super-tall buildings in many major cities in coming decades," Chantranuwat says, when asked about the future state of the industry. "Vertical evacuation or relocation, vertical emergency response, and other 'gravity concerns' are going to be increasingly challenging."

He believes more effort needs to go into developing distinct fire codes for these super-tall buildings (including setting a standard definition for the terms), as the fires and fire suppression in these structures will unfold in ways not seen in most other structures.

"Imagine the water damage a hundred floors below if a sprinkler gets activated or a fire hose intervention takes place on the 140th floor," he says. "The risk-based or performance-based design in fire safety must be clearly expressed in the building code for super-tall buildings or other complex buildings."

Chantranuwat also believes fire protection and building security consoles and panels need to be integrated into one unit, which would allow for more reliable fire safety and alarm systems.

The Heart of Innovation

Fusion Fire Safety is one of only three companies offering fire protection consulting services in Thailand throughout all phases of building design, construction, and



maintenance. The other two have close ties to Fusion and Chant-ranuwat—one is staffed by former students of the FPE program Chantranuwat started at Kasetsart University, and the other consists of former Fusion employees.

“Fusion Fire Safety is the first company to provide [these services] in the country,” he says, “so it is good to provide a variety of services in order to catch [clients’] attention.”

Ultimately, Chantranuwat sees the fire protection engineering industry as a field of tremendous growth and infinite variety, limited only by the ingenuity of the professionals who design and build the structures that companies like Fusion seek to protect.

“If architects and developers continue to [create] new innovations in building configuration and decoration, the fire protection profession [has] endless [options for growth],” he says. “Future challenges in fire protection features to protect life and property, or to offer business continuity, all depend on the new ideas and innovations of mankind.”

Chantranuwat also believes that in a decade, so-called performance-based design will be a common tool in many countries to solve the fire risks in various kinds of buildings.

A tool already widely accepted in other engineering disciplines, performance-based design aims to ensure that no matter what *thing* is being designed—whether it’s a bridge, or an HVAC system—it achieves specific performance goals in specific settings.

In fire protection engineering, where this sort of design theory was adopted only recently, performance-based design might address such issues as how to keep smoke away from occupants long enough for them to safely evacuate a building, or how fires might be prevented from proceeding to flashover, a state where nearly every piece of burnable material combusts simultaneously.

Chantranuwat also says he believes that new fire codes will promote the development of safer and more affordable building materials.

“The fire-testing laboratories, and independent fire protection engineers as third parties, will be play significant roles in the profession,” he says.

Future on Fire

Despite the progress Chantranuwat and Fusion Fire Safety have made in recent years, there is still much work to be done.

Since the factory fires that inspired him to become a fire protection engineer, Chantranuwat says many “active” protection systems like standpipes [which firefighters can use to fight high-rise fires], sprinklers, and pressurized fan systems [to ventilate and clear out smoke] have been adopted into the new Thai fire codes.

Chantranuwat is concerned, however, about the lack of “passive” features.

“Passive protection measures have been [largely left out]—things like fire compartments, fire stops, opening protections and [fire-resistant] materials used [in construction],” he says. “So, now new buildings in Thailand have very good fire protection systems in place, but lack fire barriers to prevent fire and smoke spread, and use a lot of poor foam plastic insulation and highly combustible materials [in construction].”

More frustratingly, Chantranuwat says that even in some recent buildings erected under newer fire codes, maintenance is often shoddy, or nonexistent.

“We found that many new establishments with good fire protection systems do not properly maintain them, including regular testing as required by NFPA standards,” he says.

“This will be a challenge in the coming decade.”

Ultimately, Chantranuwat suggests, the cure for what ails fire

protection in Thailand is education, and a kind of continued evangelism for the profession.

“We cannot compare to the U.S.,” he admits. “I’ve spent 20 years trying to alert and share my expertise with our local authority engineers in many government departments, who mostly are civil engineers.”

The learning curve was steep.

“At first, they did not even know about fire compartments, fire resistance for steel structures, fire spread through openings, material—like decorations and furnishings—control, and so on,” he recalls. “Now, though, they understand how these particular issues are very important in building fire safety. We are now developing our local building codes under nearly the same basic knowledge.”

Sometimes, though, the pace can be frustrating.

“The changing process is very slow and not always consistent under government processes,” Chantranuwat says.

When he began, though, as the sole fire protection engineer in Thailand, Chantranuwat represented a profession of one.

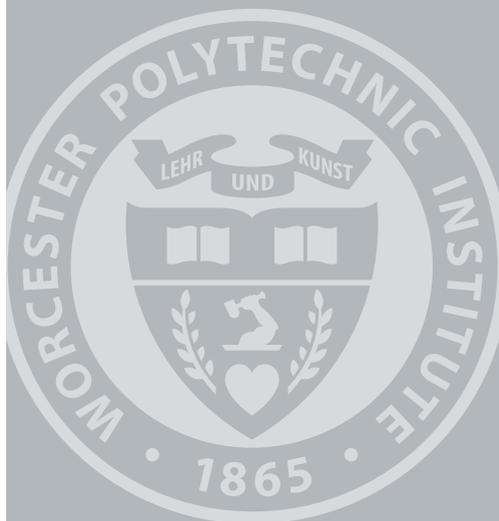
“Now we have more than a hundred fire protection engineers in Thailand, who are participating in many professions,” he says.

The evolution of the profession in his home country leaves Chantranuwat feeling optimistic.

“This is a good sign,” he says. “We can be better in developing our Thai building code continuously, and improve our buildings so they are more fire-safe in the future.” **J**



FROM THE ALUMNI PRESIDENT



Dear Alumni:

Hopefully you've heard by now that WPI is the recipient of the 2016 Bernard M. Gordon Prize from the National Academy of Engineering. This award recognizes something we, as WPI alumni, have known for a long time: project-based learning works. The Gordon Prize is one of the most prestigious honors that can be earned by a college or university and is one more reason we can be proud of our alma mater.

As spring begins to blossom here in Worcester, I encourage you to take advantage of several opportunities in the near future to come back and experience the beauty of the campus and the pride of being part of the WPI community. Community Service Day and the Alumni Association Annual Meeting will be held Saturday, April 23. This family-friendly event is a great opportunity to give back by helping improve the surrounding community while connecting with fellow alumni and current students who are also volunteering their time. Participating in the Annual Meeting is an easy way to learn what's happening with the Association.

Alumni Weekend is also just around the corner. Many activities are planned over multiple days—with a lot of flexibility: we may choose which events we'd like to enjoy on which days. After a sneak peak at the plans, I can tell you this won't be your typical WPI Alumni Weekend. Whether

you're celebrating a milestone reunion in 2016 or just want to come back for some fun, I hope to see you on campus June 2–5. Don't forget, the class with the highest attendance will take home the coveted Attendance Cup. Which class will it be?

I extend a personal thank you to all who have made a contribution to WPI or are thinking about making one before the June 30 fiscal-year end. Our contributions help provide the much needed financial support that makes a WPI education and project experiences accessible for students, attracts world-class faculty, and helps maintain and improve campus facilities. If 2016 is a milestone reunion year for you, as it is for me, your contribution could help propel your class to the top of the list as the class with the largest gift. Who's up for a little friendly competition?

As always, if you have feedback or ideas you want to share, feel free to reach out to me at rmdelisle@alum.wpi.edu.

All the best,

Rachel '96 '06

Rachel M. Delisle '96, '06 MBA



ARTWORK BY BRITTANY HAFFORD

THE CHIMES OF WPI

WILLIAM BINNS SMITH GIFT HEARD LOUD AND CLEAR

It's precisely noon on The Hill and the glorious chimes in the Alden Memorial tower begin to ring, as they have for six decades. Gifted to the university in 1955 by the widow of William Binns Smith, Class of 1908, the carillon bells offer a daily pause of reverie to the WPI community.

A leading industrialist in early 20th century Worcester, Smith began his career as a manufacturer of textile machinery and ended as a tireless, civic-minded leader and generous philanthropist. He died in 1952.

WPI's gratitude to Mrs. Isabel Hood Smith and the Smith family legacy is

especially poignant today—WPI recently accepted a \$7 million gift from the William Binns Smith Estate. The gift is earmarked for endowed professorships and endowed graduate fellowships, with a preference for support to the mechanical engineering program.

FROM BARN TO BOARDROOMS

JOE LAPTEWICZ SUPPORTS THE FOISIE INNOVATION STUDIO

JOSEPH LAPTEWICZ JR. '71 ALWAYS KNEW HE WAS AN ENGINEER AT HEART. AS A SELF-DESCRIBED "FARM KID FROM CENTRAL MASSACHUSETTS," he

realized the hands-on farm work would easily translate to an engineering career, but wasn't sure how he could afford the education until a WPI scholarship made all the difference.

Laptewicz has made it a priority to return the favor, recently giving a generous donation to help the proposed Foisie Innovation Studio become a reality.

"I have to say, I loved every minute I was at Tech," says Laptewicz, who was presented with WPI's Robert H. Goddard Award for Outstanding Professional Achievement in 2011. "There was nothing not to like."

Laptewicz first came to WPI as a high school student in a summer program. "I always wanted to be an engineer," he says. "There was nothing else I wanted to do as a career." The choice wasn't that surprising. "As a farm kid, you work all the time," he says. With fields that need work, gardens that

need tending, animals that need care, and equipment that needs maintenance, he excelled at figuring out solutions through his tasks.

At WPI, he dove into exploring all the engineering disciplines and became a member of Sigma Alpha Epsilon fraternity. When it came time to pick a major, his decision reflected his work ethic. "I picked chemical engineering, not so much because I knew I liked it but because I thought it was the hardest and most challenging area to go into," he says. "I liked the idea of taking the difficult path."

Even after graduation took him to Cornell for a master's degree and the University of New Haven for an MBA, he believed giving back to WPI was essential. "I wouldn't have been able to go to Tech without financial support," he says. "They supported me, and I felt like it was a continuation for me to help."

His recent generous backing of the Foisie Innovation Studio through the Alden Trust Challenge is particularly meaningful. Wanting to make the biggest

impact with his donation, Laptewicz, who holds approximately 15 patents, says the new center will foster all he loves about his alma mater.

When it's completed, the Foisie Innovation Studio will offer dedicated space where the project-centered work at the core of WPI's curriculum will flourish. In this state-of-the-future facility, students and faculty across disciplines and at all levels will have the opportunity to collaborate on projects, brainstorm ideas, experiment, and learn from each other. If the WPI community raises \$9 million for this new space, the Alden Trust will contribute an additional \$3 million.

"That's what I find exciting in school—taking the theoretical and developing something people can use." Academic exercises are necessary, he says, but the realistic, hands-on projects propel students to solve real-world problems. When Laptewicz worked on a molecular sieve project at WPI, the final product was eventually used in oil refineries and licensed by Mobil. The accomplishment still thrills him today, and he believes the Foisie Innovation Studio is a place where similar projects will come to fruition.

His career in the health and medical industry highlighted his process skills and allowed the hands-on work he so enjoys. Starting out as a process engineer at Pfizer, he went on to eventually serve as CEO of Schneider USA, a Pfizer subsidiary, and he held the

same position at Empi, a developer and distributor of medical electrical stimulation devices. He also served on several boards of companies like AngioDynamics, Advanced Neuromodulation Systems, and Cyberonics. Now he calls North Carolina home, and his recent retirement allows him more time with his family: his wife, Mary, and their three grown children.

Even with management roles, Laptewicz never shied away from the hands-on approach he believed necessary. He met with patients who used his products and walked hospital floors to hear both good and bad feedback from physicians. "It's all about being with the patient and the customer," he says. "They share what their opinions are. If you're not in the hospitals and the ORs, you will never know. The hands-on part of it is really important." Laptewicz says he treasures notes and stories of people who have used his products. "Those are the things you live for," he says.

With each new career move, Laptewicz saw a fresh chance for change. "I see it as taking advantage of opportunities as they present themselves," he says. "I never worry about leaving things behind or what I am missing." It's that forward momentum he cherishes in WPI. "There's a saying in industry that you grow or die," he says. "When the Foisie Innovation Studio came along, that is growth."

— Julia Quinn-Szcesuil

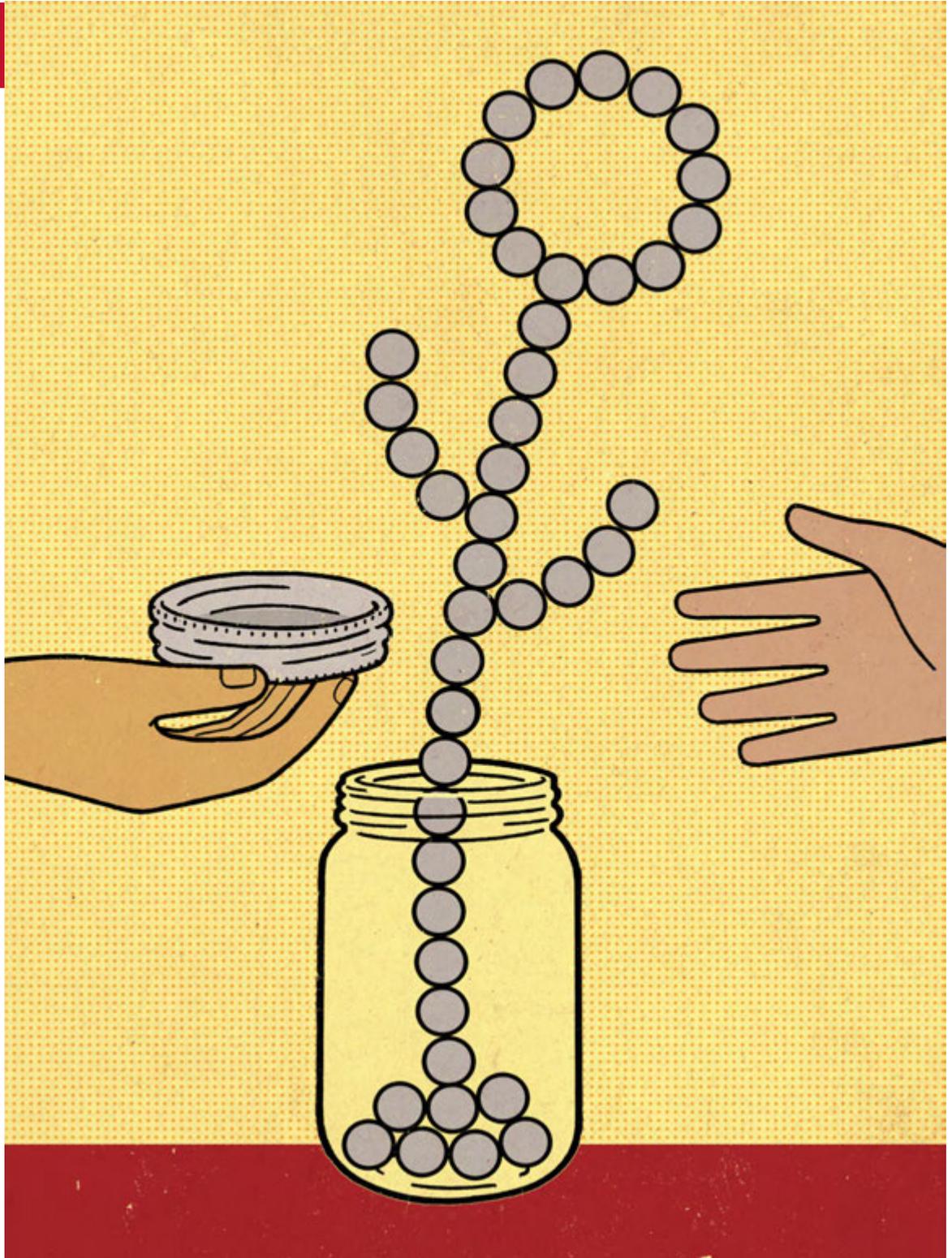


ILLUSTRATION BY DAN PAGE

TAKING THE CHALLENGE OF ALUMNI INVOLVEMENT

TRUSTEES OFFER \$10,000 IN MATCHING FUNDS TO CLASS OF 2015

ANNA CIVITARESE '15 has a lot on her plate. She's in her first year of graduate school at Brown University, working toward a master of public health degree. When not in class, she interns at the Rhode Island Department of Health in the Infectious Diseases Division. And on weekends, she works as a banquet server to support herself.

But she still made time to return to WPI for Homecoming last fall, because she wanted to catch up with friends and see what's new on campus. And recently, when she spotted a young woman wearing a WPI sorority sweatshirt at her gym, she introduced herself. After discovering the woman was a first-year student on winter break, the two chatted about the joys and challenges of a WPI education, and Civitarese gave the student some tips.

Her involvement with WPI, even after graduation, is part of her plan to give back to the school she says did so much for her.

"There's an age-old concept—don't forget where you came from. Don't forget who helped you along the way," says Civitarese, adding that without a Foisie full-tuition scholarship, she would not have been able to afford a WPI education.

"It's very easy to get wrapped up in the next part of your life after

graduation," she says. "But a lot of us wouldn't be where we are now if it weren't for alumni involvement."

PHIL RYAN '65, chair of the WPI Board of Trustees, former interim president, and WPI donor himself, says that at his 50th reunion last year he reflected on his and his classmates' engagement with WPI over the last half century. He realized that alumni involvement comes down to "time, talent, and treasure, and those resources ebb and flow as one's responsibilities and resources change over a lifetime."

"Young alumni often have more time than money to give to their alma mater. The important thing is to stay involved and make a habit of giving what you can when you can," he says. Ways to participate include mentoring, sharing technical expertise, career advising and networking, and returning to campus for events, in addition to contributing to the Annual Fund.

"Get in the habit of giving something, follow WPI, continue your engagement with WPI, and not only will the rewards be enormous to you, but you will be invaluable to WPI as an ambassador for our great university."

GRANIA VANHERWARDE '15, an analyst for a small financial consulting firm in New York City,

says she's already reaping the benefits of alumni engagement. Having moved to New York knowing virtually no one, she's made new friends and business connections there by reaching out through the WPI Alumni Directory and attending alumni social events. And, she's kept up with old friends and what's happening on campus, in part, by attending Alumni Weekend for her zero-year reunion.

"I used to volunteer at Alumni Weekends when I was a student, and I thought it was the best thing ever," she says. When she returned as an alumna, "It was like being back in college again for the weekend."

In addition to attending events, VanHerwarde and Civitarese say they plan to contribute to the Annual Fund regularly, even if it means making small donations at first. As members of the 2015 Class Gift Committee that raised more than \$30,000 with participation from over half the class, they understand how small donations from a lot of people can make a big impact.

VanHerwarde and Civitarese are now part of a committee spearheading a Class of 2015 Challenge being offered by Ryan and WPI trustee and loyal donor **STU KAZIN '61**, who will match any gift to the WPI Annual Fund made by members of the Class of

2015 before June 30, 2016. Up to \$10,000 in matching funds is available. The sesquicentennial class demonstrated such a commitment to philanthropy as seniors, Kazin explains, that he and Ryan wanted to find a way to encourage their giving as new alumni.

"In early days after graduation, young alumni say they can't afford to give anything because of their student loans. Or they think a small gift won't make a difference. So we explain that we appreciate any gift at all, and we emphasize participation rather than the dollar amount," Kazin says. "Studies show that if you get younger alumni involved and caring about their alma mater, you have them for life. We want to foster that kind of philanthropy."

VanHerwarde and Civitarese hope their class and other young alumni will continue that legacy of giving back.

"Don't forget all the people who came before you and made WPI great, and how you can be a part of that," says Civitarese. "Financially isn't the only way; there are many ways to contribute to the greatness of WPI—be present, be a mentor, connect through the WPI network or career programs."

— *Cate Coulacos Prato*



DEAN GROGAN'S GLOBAL LEGACY

BILL GROGAN '46 was one of the founders of the pioneering WPI Plan, and as dean he led its implementation and established WPI's early global project centers – now an impressive more than 45-strong around the world. Dean Grogan had the foresight 45 years ago to know that engineers and scientists would need more than technical knowledge to solve pressing challenges that cross geographic and cultural boundaries. He also knew the great value and personal and professional impact of global project-based learning. When he passed away in May 2015, alumni stepped forward to establish the William R. Grogan '46 Endowed Global Projects Scholarship. The purpose is to make off-campus, residential

project-based learning experiences available to academically qualified students with demonstrated financial need. This scholarship will ensure that Bill Grogan's legacy of educating responsible and effective global leaders continues.

“Providing financial support for global project-based learning is one of the core elements of WPI's strategic plan, *Elevate Impact*. We have a wonderful opportunity to advance our plan, benefit our remarkable students, and simultaneously honor Bill and the program so important to him and WPI.”

—Phil Ryan '65, Chair, WPI Board of Trustees. Co-founder of the William R. Grogan '46 Endowed Global Projects Scholarship with Paula Delaney '75, Bob Fitzgerald '53, and Carol Garofoli, longtime WPI staff member

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1943

Ted Pierson tells us, "I am living in a continuing care facility just north of Princeton, N.J., with about 350 residents, which provides great social activity and in-house medical assistance as needed. I just gave up my car and use a walker, but otherwise I am enjoying each day. I am pleased to hear of the progressive growth of WPI over the years."

1944

Shirley and **Irving Gerber** celebrated their 70th wedding anniversary on Sept. 2, 2015, with a special blessing at their temple, and coverage in their local paper, *Belmont Citizen-Herald*. The story related how they met at dance at Alpha Epsilon Pi, when Shirley was someone else's date. "When she walked in the door, I thought she was pretty, but what could I do: "Irving told the reporter. They married two years later. Irv retired at 60, learned the art of designing and building furniture, and has been in that business for the last 25 years.

1946

Herb Slaughter writes, "Sorry to read about the passing of my classmate Bill Grogan. He achieved much for the educational system at WPI."

1948

Arne Kellstrom's daughter Emmy shares the sad news of his death on Dec. 22, 2015. "He had a 35-year career with Ingersoll-Rand Company, followed by engineering consulting," she writes. "He loved his school and always said that he got the best, most well-rounded, engineering education. Although he got into Harvard and Yale, he was a math genius and really wanted to become an engineer and that's why he chose WPI."

1949

"Still holding the fort here in Sharon, Mass.," says **Jerry Gleason**, "but miss Lynne. I love spending time with my granddaughter, Sarah, and her children.



BELMONT CITIZEN-HERALD / DAVID GORDON

'44

Shirley and Irving Gerber celebrated their 70th wedding anniversary with a special blessing at their temple.

1953

David Hathaway writes, "Dropped my motorcycle on my ankle by accident on grass and learned that I had the bones of a 50 year old. Must be because I stopped drinking coffee at 55 and converted to hot water (no lemon, please). Also found out by volunteering at Lahey Medical Center in Burlington that volunteers live longer, so find yourself an existing place to help. I just

met a PhD from WPI who volunteers many hours at the beautiful Tower Hill Botanic Garden in Boylston."

Sue Kramer, daughter of **Orren (O.B.) McKnight**, shares the news of his death in September 2015. "Dad had Alzheimer's, and at times he would forget his children's names – but he always remembered WPI and never went anywhere without his WPI hat," she says. "His hat was on his nightstand when he passed."

1955

Earl Bloom writes, "I have spent 15 years and over 25K hours developing a comprehensive investment system called MAPS (Major Analytical Paradigm Shift) that will revolutionize the entire investment world!"

1957

Boakfar Ketunuti has a blog at boakfar.blogspot.com, where he posts photos of his family, his equestrian program for

disabled children, and some get-togethers with Fiji friends. He sends these thoughts: "Thanks for the memory... the best is yet to come. Enjoy your golden years."

Al Papianou writes, "For many years I had been trying to get the 'U' to award an honorary doctorate to Father Peter Scanlon. With his passing, I'm on a new track: to establish a scholarship in his honor. I hope that for our 60th reunion in 2017, we can consider giving some of our Class Gift to this program, as we do to our own Class of '57 Excellence Scholarship. Spread the word to other classes as well, please."

George Long is now a certified nursing home ombudsman for the State of Vermont. His job is to ensure that federal and state regulations are being followed and that remedial action is taken for any issues residents have with quality of care or quality of life. "Very rewarding," he notes.

1959

Michael Hertzberg has spent 10 years in Aiken, S.C. “Planning on another round in shorts on 01/01/16,” he wrote in a note sent at the end of last year. “If you’re heading south, let us know. We have room for you, and I know you’ll love the Palmetto Golf Club.”

Richard Ronskavitz writes, “Just enjoyed my 78th birthday. I have been retired for 18 years and enjoying life, including a river cruise in the Netherlands. I enjoy traveling in the U.S. and Europe four times a year. I play golf three times a week and can still break 90. I have lived in Florida since ’78 and hope to get back to Worcester soon.”

1961

Hank Alessio sends out a tribute to classmate **Al Irelan**, who died Nov. 16, 2015: “Al was an ME major, a skier and swimmer, and member of Phi Sigma Kappa. Before coming to WPI, he was on active duty aboard the USS Glacier (AGB-4), a Navy icebreaker that served in numerous Operation Deep Freeze expeditions.” Hank tells us that reading “A Season On Ice,” in the Fall 2015 issue of the *Journal* got him thinking about Al’s travels around Antarctica. “He was breaking new snow in Antarctica 60 years before Marissa Goerke ’14 was raising melons on the Pole. Talk about building a WPI legacy.”

Dick Davis and his wife, Dorothy, have been retired for almost 10 years, living in Ashland, Ore. In May 2015, they celebrated their 46th wedding anniversary with a trip on the *Queen Mary 2* from NYC to the British Isles. “This was a special cruise for Cunard’s 175th anniversary,” Dick writes, “which brought their three biggest ships, *QE2*, *QM2*, and *Queen Victoria*, together on May 25 at the company’s spiritual home in Liverpool. We are both active each summer as volunteers for our local theater, the Oregon Shakespeare Festival. I am also a volunteer tax preparer for the AARP during tax season.”



Tom Pantages writes, “I have been driving veterans to the VA for several years now. One of them was a high school classmate of **Paul Bayliss ’60.**”

1962

The **William A. Brutsch** Water Treatment Facility in Ware, Mass., was dedicated in November 2014. The ceremony honored, in memoriam, Bill and his 32-year career with the Metropolitan District Commission and the Massachusetts Water Resources Authority. In attendance were the MWRA board of directors, employees, friends, and family. “He would have been extremely honored by the dedication,” says his widow, Carol. “The location of the facility is even more meaningful since he is buried nearby at the Quabbin Park Cemetery close to the shores of the Quabbin Reservoir, an area that held a special place in Bill’s heart for many years.”

Ralph Johanson writes, “I competed in the US Senior Games in Minneapolis in July. Ten thousand athletes (all 50 and older) from every U.S. state and 11

countries competed in different sports, with 617 participating in swimming. In my age group (75-year-olds), I placed first in the 50-yard breaststroke, second in the 200-yard breaststroke, and third in the 100-yard breaststroke.”

1964

This just in from **Bruce Maccabee**: “X Files fans, you don’t have to wait until January to discover for yourself FBI file #62-83894, which contains UFO documents classified as Security Matter-X. This is the real X-file of unexplained sightings. Give the gift of truth in my book *The FBI–CIA–UFO Connection*, available on Amazon. The truth may be ‘out there’ but it is definitely ‘in here.’”

1965

Gene Dionne sends this recap: “We have been living in Littleton, Colo., since I retired from the Air Force as a colonel in 1994, and I’m now enjoying a (nearly) full retirement from the aerospace industry. It’s been a wonderful career even though it got started by my draft board during the

Charlie Durkin was interviewed as part of the PBS documentary “Blackout” on *American Experience*

’65

Vietnam War in 1968. I spent 26 years in the Air Force, followed by multiple assignments as a space systems engineer, primarily in Los Angeles, and mostly in the National Reconnaissance Office during the height of the Cold War. I joined Lockheed Martin in 1994 from my last assignment in the AF Research Lab in Albuquerque and have served largely in systems engineering and program management roles, the last being VP, engineering and operations, for classified programs. In my 47 years, I was directly involved in developing and launching about 30 satellites and establishing several new space mission capabilities. I married

well in 1977, and “Lt. Peggy Harris” and I have one son, Jeremy, who lives near us in Denver. I have enjoyed an active outdoor lifestyle with much skiing, mountain climbing, sailing/boating, and long distance cycling, both mountain and road. I have always treasured my undergraduate experience at WPI and, over the years, the longtime association with fellow graduates, particularly those in PKT. Attending the 50th reunion was a wonderful experience!”

*Apologies to **Charlie Durkin and Dick Fortier**, whose biographical submissions were mixed up in the last issue of WPI Journal, due to editorial error. Here are their corrected class notes. —Ed.*

Charlie Durkin lives in Sarasota, Fla. His career in the power system industry included 33 years at Con Edison in New York City, and eight years as chairman of the Northeast Power Coordinating Council. Charlie was interviewed as part of the PBS documentary “Blackout” on *American Experience*, sharing his expertise as a former chief system operator at ConEd.

Dick Fortier is retired from TDC Medical as chief technology officer and lives in Concord, Mass. He and his wife, Anne, have four children and eight grandchildren. “I have had the most interesting and rewarding career,” Dick writes, “including aerospace, automation, and, for the last 20+ years, medical device technology. As a cancer survivor, the most important thing I have learned is to appreciate and get the most out of every day of my life. I am fortunate to have a close family and wonderful friends.” Dick’s pastimes include designing and building custom furniture, riding with the Charles River Wheelmen, and competitive age group running. An active Unitarian Universalist, he volunteers at the Concord Prison, where he gives guitar lessons, and he works with mentally handicapped people at the Restoration Project. “I always vote, but not for anyone who does not acknowledge global warming

and man’s contribution to it. Human rights are very important to me,” he says. He retains fond memories of the late professor K. G. Merriam (dynamics) swinging from the classroom door to illustrate concepts.

Mordecai Gutman writes, “When writing my update for the 50th reunion, I must have had a senior moment and plain forgot to mention the most important people in my life. I have been married for some 47 years to my lovely Marilynne. She is an MSU Spartan and definitely hoping for victory in the college football playoffs. My son, Matt, has autism. He lives in a group home in Ansonia, Conn., where he is happy and safe. We get down to visit him almost every week. Our daughter, Amy, is an ER doctor in Kingston, N. Y. She and her husband, Mike, made us an ecstatically happy set of grandparents about six and a half years ago. Little Ronan is already wearing his WPI shirt. Smart kid! There...catch-up completed.”

1967

“Well, after 15 years teaching at WPI, and almost 30 years in the computer industry, **Steve Alpert** has finally retired!” Steve reports. “Grace and I still live in Auburn, Mass., which puts us within easy driving distance of our two children and three grandchildren. Our youngest grandson has cystic fibrosis, and Grace and I vigorously support the annual Great Strides Walk to find a cure for this genetic disease. We are both walking for exercise, and Grace participates in yoga, line dancing, and quilting at the local senior center. I still dabble with computers and smartphones.”

1969

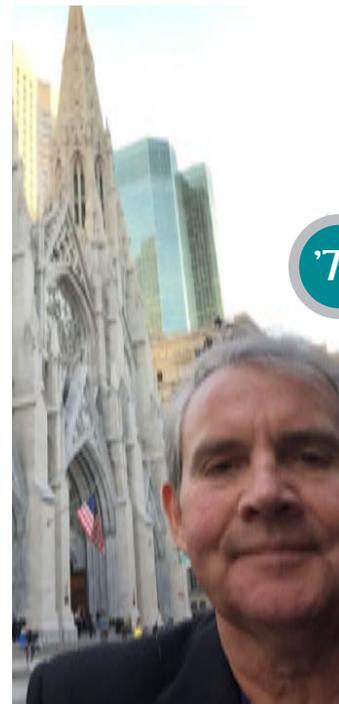
John Rush tells us, “After 27 years with NASA, I have retired and formed a space systems and technology consulting firm, NexTechnologies, LLC.”

1972

Richard Panton writes, “Life is quiet. Married to Deb for 43 years and counting! Kids all grown, with three grandchildren. Took the gang to Disney World last summer and had a ball. Teaching management at a Purdue regional campus and loving it for a decade now. I’ll retire when it is not fun anymore. Looking forward to the 50th reunion, coming way too soon!”

1973

Three years into retirement, **Mark Whitley** says he is enjoying traveling with his wife, Janice, fly fishing, and skiing. “Recently I have become an advisor to a private equity firm, helping them to evaluate oil and natural gas assets that the firm may wish to invest in through their energy fund. We live in Fort Worth, Texas, and spend time in New Orleans (my wife’s hometown) and Vail. Congrats to the ‘tute on celebrating 150 years of excellence.”



'73

“Congrats to the ‘tute on celebrating 150 years of excellence.”

—Mark Whitley '73

Frank Kania writes, “Working on Plant Vogtle Units 3 and 4 new-build nuclear power plant construction at Waynesboro, Ga. Denise takes care of our home in York, S.C. Our son and daughter-in-law have two sons, and our daughter and son-in-law are expecting a son right around the beginning of 2016. Things are very good.”

Paul Parulis hiked the Grand Canyon and five other National Parks with **Mark Andrews '72**. Paul is retired and living in Connecticut.

Dan Prior ('89 MBA) recently retired after a 42-year career at National Grid that encompassed work in engineering, skills training, human resources, operations, and material supply. He and his wife, Jane, have relocated to Cotuit, Mass., where Dan says he plans to do consulting work and enjoy life on Cape Cod.

Mark Richards writes, “I am currently engaged in a chaplaincy residency program at St. Luke’s Hospital in Kansas City. My hope is to offer hospice chaplaincy to the homeless and the imprisoned. The work is fulfilling and the people are the most kind and caring folks I have ever worked with. And Kansas City has straight streets that intersect at ninety degrees. Who knew?”

1974

After retiring, **Suresh Masand** moved from New Hampshire to Cape Cod, where he stays active with golf, tennis, swimming, social activities, and travel. “Look forward to connecting with other WPI graduates who live on the Cape,” he writes.

William McBride is completing his second cycle as the IEEE representative on NFPA Code Making Panel 14 for the NEC. “I still live in Anchorage, Alaska; have a second home in Arizona, mostly for Cactus League Spring Training games in March. Still working as electrical administrator for CONAM Construction, but mostly perform electrical engineering work in the oil and gas industry in Alaska. Oil prices are down, so this allows for more time to play and travel. My hobbies include fishing in summertime, and collecting cars and music. Still very active in listening to live music and travel to Lower 48 several times a year to see concerts. Favorite venues include The Gorge (in Washington), Red Rocks (in Colorado), Musical Instrument Museum (NNE of Phoenix), and the Cuthbert Amphitheatre (in Eugene, Ore.)”

1975

Robert Horner reports, “Pam and I just moved to our ‘retirement’ home in Milford, Mass., even though I’m still working. A great townhouse/condo... no more raking leaves, shoveling snow, etc. We love our new home – it’s also close to our older son, Jim, and his wife, Julie. Getting to where I can see that retirement light at the end of the tunnel!”

Nelson Marquina (MS MA) is a co-author of *Pain Relief and Healing with Lasers*, published by Dental Today in Tokyo. An English translation is in the works. The book documents techniques and case studies of using the Lumix 2-45W to treat craniofacial pain and periodontal disease. Marquina is president of USA Laser Biotech Inc., and a developer of biophotonic and

bioelectromagnetic systems and treatment protocols.

1976

Robert Cormier writes, “I recently retired from my civil engineering career as president of Cuoco & Cormier Engineering Associates. The firm began in 1983, providing land surveying, planning, and civil site engineering services to developers, the business community, and homeowners in New Hampshire and Massachusetts. I began surveying in 1973, during WPI breaks, and after 42 years in my chosen career field (32 as president of Cuoco & Cormier), I have decided it’s time to ease into retirement. Donna and I live in Hollis, N.H., where I have been very active with our local Rotary Club. We volunteer with our church and the Scouting program, where I serve as the Arrowhead District Commissioner. Our eldest son, Todd, and his wife, Kerry, will be providing us with our first grandchild in 2016. Our youngest son, Brian, works as a chef in Nashua. Life does go on!”

John Moroney writes, “My wife, Sheila, and I met up with **Herc Paskalis ’74** in Montipulciano in the fall, while on our way to visit our son in Rome. He continues to be the amazing guy we all knew back at the KAP!”

1979

Andrew Davidson was named controller and chief financial officer of Landscaping Etc. Inc., operating in Worcester and Millbury.

Sigifredo (Fred) Gonzalez retired from GL&V Inc. in 2010 and moved from New Hampshire to Venezuela, where he currently resides.

Tom Rockwood reports, “After a 30-year career with Procter & Gamble, I have now moved on to the next mission, serving as chief operations officer of the Aruna Project and Somerset Exports, a business established in Mumbai, India,

which offers sustainable employment marked by holistic care to women freed from the sex-trafficking scourge in Asia’s largest red-light area in Mumbai.” [*Aruna* is Hindi for “bright morning sun.”] Tom is also an adjunct professor at the University of Cincinnati.

1980

Kathy Berthelette writes, “After working in the telecommunications industry for 35 years (the last 17 at Accenture), I have retired! That doesn’t mean that I’ll be spending my days fishing, gardening, or playing bridge. I have been accepted in an EMT program and will start back to school in January preparing for my second career!”

Allison (Avery) Powers sends this update. “Jim and I moved to the Charlotte area three years ago, after living in the snowbelt (Cleveland area) for 17 years. I’m enjoying the change of climate. Jim is consulting for Toshiba, working normal hours after years of being in the nuclear business with hours at the whim of operating power plants. He plays bass guitar in a band, Gameface, and we spend a lot of time in bars listening to classic rock and blues. It’s sort of like college life all over again! No grandkids yet. I sew and enjoy going to the gun range. Every time we move, I pick up something new, this time, target shooting. I haven’t forgotten my years at the YMCA in aquatics and still get in some lap swimming.”

Charles Sullivan is vice president and senior investment adviser for TD Wealth’s Private Client Group. A 30-year veteran of the banking industry, he previously worked for Citizens Bank and Smith Barney.

1982

David Pryor is director of waterfront engineering for Clark Nexsen, an architecture and engineering firm based in Virginia Beach. He brings three decades of experience, specializing in marine structures and coastal

engineering, shipbuilding, and management. He holds an MS in engineering management and a certificate in coastal engineering from Old Dominion University.

1983

Doug Acker recently started a new job as a manager at Alert Logic Inc.

Anne Hughes (’88 MBA) is a design engineering group director at Cadence, where she manages a team that develops DDR memory IP products. She recently fielded questions about the challenges and advancements in memory IP, women in technology, and the rewards of mentoring, in a Q & A on the company’s website.

Joel Kearns (’13 MS ME) writes, “After NASA’s Orion Exploration Flight Test One mission, I was awarded an Orion patch flown on that mission, for ‘...outstanding leadership of the ESA Service Module Integration Office in driving closure of issues leading to a successful Preliminary Design Review and maintaining Exploration Mission One schedule agreements critical to the Orion Program.’ The next Orion mission will be September 2018 and will send an unmanned Orion vehicle to orbit the moon and return to Earth.”

Mark Scott writes, “Since obtaining my SDM degree at MIT, I have been leading rotor technology efforts for Sikorsky Aircraft. We are testing a new rotor system at NASA Ames. For fun and adventure I built an airplane, which flew for the first time in May 2014. Last summer I flew it to the Yukon Territory and Alaska, covering over 9,000 miles in three weeks.”

Wally Towner reports, “WPI was well represented at the Advanced Manufacturing Collaborative & Northeast Advanced Manufacturing Consortium Regional Meeting held Oct. 26, 2015, at the UMass Lowell Innovation Hub. Alums at the event included **Paul Fortier ’84** (Phi Kappa Theta), northeast



regional manager for MassMEP; **Wally Towner '83** (Phi Gamma Delta); and **Tom O'Donnell '84** (Sigma Alpha Epsilon), director of the Umass Lowell Innovation Hub. Wally was there as director of WPI's Center for Innovative Manufacturing Solutions.

1984

Josiah Reed and his wife, Karen, are proud to announce the wedding of their daughter **Kristen Reed '15** to Mathew Thatcher on Aug. 9, 2015.

1985

Frank Statkus (MSM) writes, "The postgraduate education was invaluable."

Jody (Bobbitt) Zolli writes, "Having just celebrated 30 years as a technical writer, I am enjoying working at Akamai Technologies, where I've been employed for over three years. I develop technical information for an internal audience, supporting the engineering team. I work with some of the smartest people I know, and every day is a great challenge! I reside with my husband, Pete, and our son, Leo, in Hudson, Mass. I'm grateful that my stepdaughters, Emily and Erica, both live nearby, along with their children, Jonah, Noelle, and Nik."

1986

Jodi (Griesmer) Gernon is the new director of Harvard Business School's Rock Center for Entrepreneurship.

1987

Patrick Boyle writes, "After 20 years with IBM and two years in Asia (living in Singapore), our family returned to the U.S. in 2013. Now working with Deloitte Consulting in its Healthcare and Life Sciences practice. Still living in New Hampshire, where I regularly come across WPI grads. Recent visit with our sons to WPI was very impressive. Keep up the great work, Tech!"

Marie Hutchinson continues at UTC as manager, program office effectiveness. She resides in Connecticut with her husband and two young daughters.

1988

George Aghjayan retired from a career in insurance and structured finance in 2014. He now focuses on Armenian-related research and projects. His primary area of interest is the demographic and geography of Western Armenia, but he also researches hidden Armenians living there today.

[CLASSnotes]

Electric Supply Center president **Larry LaFreniere** hit the links with employees to honor his WPI friend **Nick Johnson '85**, who passed away last year. Larry spearheads the annual Nick Johnson Memorial Golf Outing, with ESC serving as its Platinum Sponsor.

1989

Dan Connors shares the sad news of the death **Iakovos "Arki" Iakovou '88**. "Arki passed away suddenly on Oct. 12, 2015. He graduated with an MGE degree and belonged to Sigma Phi Epsilon. He was my fraternity brother and best friend."

John Grimm is senior director of product marketing at Thales e-Security and a columnist for *Infosecurity* magazine.

Ed Woodrow writes, "Looking forward to turning 50 and getting the two children into the colleges of their choice/ability. I've reached out to some WPI alumni via phone and email, out of the blue. It's fun chatting with someone you haven't talked to in over 25 years! It rekindles some deep memories. Give it a shot."

1990

Peter Kofod, co-founder and CEO of the Raleigh, N.C.-based The Sixth Flag, was recognized as one of 2015's "100 People You Don't Know But Should," in the IT channel, by The Channel Company's CRN. His company develops "desktop-as-a-service" software for global companies that need remote desktop management solutions. The start-up, early in its channel efforts, is recruiting midmarket-focused solution providers in the U.S.

Karin (Ricci) Newman writes, "So excited to have my daughter at WPI. She is a sophomore and LOVING her experience. Hard to believe it has been 25 years since I graduated."



'90

"So excited to have my daughter at WPI."

— Karin (Ricci) Newman '90

1991

Robert Prytko shares, "Amazingly, I am still at the same company since I joined a little start-up (Sepracor) in 1993! The name changed to Sunovion after we were bought by a Japanese pharmaceutical company. As a result, I have been traveling to Japan as we continue to globally integrate our operation."

1992

David Flinton was promoted to senior vice president at Xylem, where he presides over global dewatering operations from the company's dewatering headquarters in Bridgeport, N.J. Xylem provides portable pumps for dewatering, bypass, and drainage applications.



Jim Kokernak is a senior advisor engineer at Bechtel Marine Propulsion in Niskayuna, N.Y. He writes, "I recently visited the WPI campus to recruit at a career fair. It was my first time back in ten years. It felt like coming home, and I hope my high school daughters will consider WPI."

Loan Ngo joined Valspar in October 2015 as vice president, global quality. "I design and deploy the corporate quality excellence strategy for one of the largest global coatings manufacturers in the world," she writes. "Valspar provides coatings and coating intermediates to a wide variety of customers." Loan and her family have settled into the greater Minneapolis area.

1993

Chris Pons teaches math at Wyoming Seminary's Upper School in Kingston, Pa.

Jeff Rembold has been working at PTC for 21 years. "Since late 2014 I have been an application engineer focused on ThingWorx, our Internet of Things (IoT) technology platform. It has been a fun challenge to learn the new skills needed for this job, a significant departure from my previous role on our other more engineering-centric technology. I still live in Rochester, N.Y., with my wife, Cristine, and our five children. Our oldest daughter is now in college (yikes!), and our next daughter, in 11th grade, is looking at engineering schools (maybe WPI?)."

1994

Jason Johnson writes, "I am glad that I can help KARL STORZ sponsor an MQP this year. The students will be able to help solve practical manufacturing issues working with multiple aspects of the business. They will also work with the assemblers that create the value in each and every assembly. Thank you, students, faculty, and KARL STORZ, for making this possible."

Jeff Montigny is a mission assurance engineer at MIT's Kavli Institute for Astrophysics and Space Research. He writes, "I currently work on a team that is designing and building the Transiting Exoplanet Survey Satellite (TESS) for NASA Goddard, under NASA's Sciences and Exploration Directorate, which is where President Leshin used to work. We have at least five TESS team

members working at MIT or at MIT Lincoln Laboratory who earned degrees at WPI. You can read more about TESS at tess.gsfc.nasa.gov."

1995

Tom Dube is chief operating officer for Green Leaf Construction in Leominster, Mass.

Michael Preston was the goatherd for the 2015 celebration of Founders Day in November, continuing a beloved WPI tradition. See page 14 for more.

1998

Jason Mello says, "Claire and I welcomed our daughter, Molly Julia, in January 2015. We are still in the Washington, D.C., area, and recently traveled to Ireland to introduce both Kieran and Molly to their relatives overseas."

2000

Susan (McNeill) Spuhler (MS OIT) was the organizer of the 2015 Greater New England UFO Conference held in October at Leominster (Mass.) City Hall. The two-day event featured a series of keynote speakers in addition to vendors, food, and a costume contest.

2001

Lisa (Hiscock) Gove, (MS EV) was re-elected for a second term as director-at-large of the New England Water Works Association. She is employed at the Boston office of CDM Smith as an associate and client-service manager. A member of the association for more than 13 years, she has served as NEWWA director-at-large since 2012. Lisa and her husband, Doug, live in Stoneham with their two daughters.

Lizabeth (Amaral) Leveille ('02 MS BBT) is executive director, BD&L transactions, at Merck Research Laboratories.

Thomas Wollinger (MS EE) is managing director of Escrypt GmbH. He has published and presented articles numerous articles in the field of data security.

2002

Metamark Genetics appointed **Tyler Aldredge** as senior vice president of clinical laboratory operations in October 2015. The company develops diagnostic and prognostic products for the urologic oncology clinical market, including ProMark[®], designed to provide better information to aid in prostate cancer treatment decisions.

Sarah Lovell currently lives in NYC with her husband, Andrew Thompson, and works as a doula (helping families through childbirth) and childbirth educator on the Upper West Side. While her husband works on his PhD in forensic psychology, she plans to attend midwifery school and become a certified nurse midwife.

Michael Modiset married Cindy Cheung in August. They live in New York, where he works for at Deutsche Bank as vice president for technology and operation.

Sean Nelligan sends greeting to the Class of 2002.

2003

Matthew Cote joined Boston law firm Sherin and Lodgen LLP as an associate in the firm's Real Estate department. He received his JD from Boston University School of Law.

2004

Joseph Bush is the new executive director of the Institute for Energy and Sustainability in Worcester. The nonprofit, a "green chamber of commerce," aims to establish a business incubator to bring clean-energy companies to the area.

'04

“We named our little girl Riley, after Riley Hall, where we met.”

— Tasha and Josh Clark '04



Tasha and Josh Clark write, “We moved to Littleton, Mass., in the winter of 2015 and welcomed our little girl, Riley, on March 23. Big brothers Dylan (b. 2011) and Noah (b. 2012) absolutely adore her. She was named after Riley Hall, where we met the first week of freshman year.”

Frank Gerratana has been promoted to principal and partner in the law firm Fish & Richardson, where he practices patent law.

Erik Ross reports, “I have been hanging out in the vineyards of Michiana (along the Michigan-Indiana border) with my buddy, Barry, in between PhD classes at Notre Dame, and writing articles for crowdsourcing news outlets in my free time. It is great being back in grad school.”

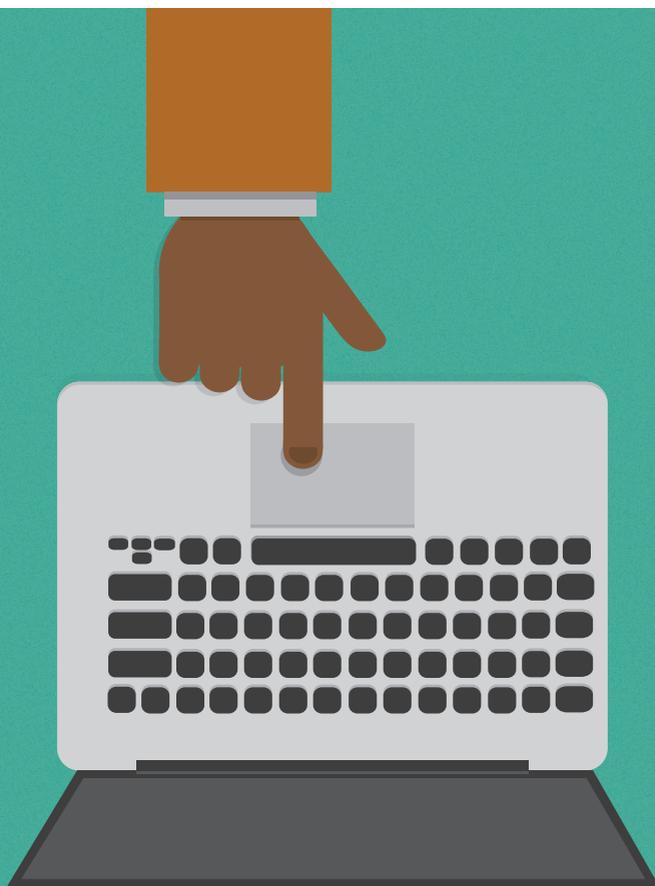
2005

Alex Aimetti has been promoted to the newly created position of senior director, medical education and scientific support, at InVivo Therapeutics. He has been with the company since 2012 and previously served as associate R&D director, biomaterials. He holds a doctorate in chemical and biological engineering from the

University of Colorado, and was a postdoctoral research fellow at MIT.

Barrett Franklin was appointed in December to be deputy network director (chief operations officer) for the VA New England Healthcare System within the U.S. Department of Veterans Affairs. In this role, he is accountable for providing strategic leadership, direction, and management to the activities of the system’s administrative chief officers.

Eric Joubert ('07 MS FPE) earned a promotion at CEP Forensic Engineering, where he now serves as regional director for Toronto. He joined the company in 2011 as a fire and explosion forensic engineer and has served as regional manager of CEP’s Toronto office for more than a year.



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Darius Kazemi delivered the 2015 Conference Talk of the Year, awarded by web-based *net* magazine (creativebloq.com). His talk, "Tiny Subversions" (viewable on YouTube), is described as a parody of every inspirational talk ever given. Darius delivers a motivational pitch (and a PowerPoint presentation full of helpful tips) to inspire listeners to go out there and win a lottery.

Wes Salomon earned his PhD in biochemistry from UMass Medical School in Worcester. He defended his thesis, "Single-Molecule Imaging Reveals that Argonaute Re-shapes the Properties of Its Nucleic Acid Guide," in December and published his work in the journal *Cell* in July 2015. Prior to obtaining his doctorate, Wes worked in Worcester at CytRx and RXi Pharmaceuticals. He has now left Worcester for Cambridge, where he is a scientist at the start-up company Intellia Therapeutics, working on cutting-edge genome editing technologies.

2006

Zan Hecht shares, "On Oct. 25, 2015, I married Allison Rosania, whom I had been dating since just before I graduated WPI. My wedding party included my WPI buddies Russ **Grossman '07** and **John Temple '07**.

Eileen Kelly married Bill Egan in May 2015, at Leicester Country Club. They recently settled into a new home in Worcester.

2007

Sam Feller (aka The Awkward Engineer) announces that his Analog Voltmeter Clock is now shipping, and an alarm clock version is in development. Check out Sam's latest designs and Kickstarter updates at awkwardengineer.com.

Linsley Kelly writes, "I defended my thesis, 'Aptamer Directed Delivery via Cell Surface Receptors,' on Dec. 11, and received my PhD in biomedical sciences. I'm planning a backpacking trip to New

Zealand before starting a postdoc in the spring."

2008

Genevieve Desaulniers writes, "I was reading my *WPI Journal* and noticed only one classmate (**Stacie Gutowski**) had written in. I was lucky enough to see her walk when she received her PhD from George Tech. I had a pretty big 2015 myself, so I thought I'd write in. I was married to Justin Kandler on Oct. 17, in Atlanta. **Keeley Stevens '07** was a bridesmaid, and **Sean Donovan '06**, **Nick McKinnon '07**, and **Michelle Dubuke '09** also attended. Currently I am working in Kennesaw, Ga., as a pediatric nurse practitioner. I recently changed jobs to help start a new private practice. Justin is a microbiologist and ORISE Fellow at the CDC."

2009

Matthew Bigman shares, "I married the love of my life, Kathleen Maile Baker, on July 25, 2015. I will be starting a new job with VT-ARC in 2016. Enjoying the WPI presence in the D.C. area."

Christina (Molinski) and Rafael Jaimes welcomed a son, Rafael Jaimes IV, on Oct. 8, 2015. They moved back to Boston for the birth, after Rafael completed his PhD at George Washington University.

2011

Drew Silvia and **Andi Reis '12** were married on June 20, 2015, in Westerly, R.I. They enjoyed an adventurous honeymoon in Australia and New Zealand. Drew currently works for Pratt & Whitney in West Palm Beach, Fla., and Andi is finishing her master's thesis in sea turtle research at Florida Atlantic University.

2012

Nick Gardiner writes, "Thanks, WPI! The prestige and functionality of my

degree provided me with opportunities and insight I wouldn't have had otherwise. Now I lead a team of engineers in the effort to build the most survivable and off-road capable trucks in the world!"

Dana (Buckley) Lenoir shares, "This year has been very busy! I am still living in Michigan and working as a safety and crashworthiness engineer at Toyota, and volunteering at a therapeutic horseback riding facility. Justin and I were married on Labor Day weekend, with many WPI alumni in attendance. We recently bought a house just north of Ann Arbor and are in the midst of a complete remodel!"



'12

"Justin and I were married on Labor Day weekend."

— Dana (Buckley) Lenoir '12

2014

Paul Bender writes, "After graduating from WPI, I spent a summer at Alden Research Labs in Holden, Mass. I'm now in my second year of graduate school at Virginia Tech in Blacksburg, and should complete my master's degree in civil engineering in May of 2016."

John Wilder finished a two-year contract with Sikorsky Aircraft in October. "I've been keeping busy doing work related to my position on the Alpha Chi Rho National Council," he writes.

Jozsef Patvarczki (PhD CS) is part of the team at LogMeIn that recently introduced Caret, a social app that tells people if you're available to chat.



CARLTON "SPIKE" STAPLES '58 (MS ME),

who taught mechanical engineering at WPI for 38 years, died Sept. 12, 2015, at age 91. He is survived by his wife, Dottie, and three of four children from his previous marriage. His oldest son, Russ, was killed by a drunken driver in 1986. He also leaves eight stepchildren, as well as 11 grandchildren and five great-grandchildren in the combined family.

In addition to his academic career, Staples was an active consultant to industry, undertaking machine design and analysis for many companies. His original cam and non-circular gear design resulted in vastly greater machine speeds without vibration.

At WPI, he chaired the Governance Committee and served on academic advisory committees. He was recognized for his creative teaching with the 1979 Board of Trustees' Award for Outstanding Teaching. He was also elected to Who's Who in Mechanical Engineering, as well as to Pi Tau Sigma honor society, and Sigma Pi national scientific honor society.

After his retirement from WPI in 1986, he continued to do consulting work and became involved in product liability and design safety analysis testifying in cases involving product safety. An active sportsman, he coached lacrosse and enjoyed skiing, sailing, and playing tennis with Dottie.

DOUGLAS G. NOILES '44,

a renowned inventor best known for his work in perfecting artificial hip and knee joints, died Jan. 25, 2016. Through the years, he and his wife, Edna (Truitt) enabled WPI to expand its reach and its campus with gifts that funded the creation of programs and the construction of buildings.

Noiles was retired as vice president of technology and executive vice president of research and development of Joint Medical Products Corporation, a company he cofounded in 1982. In 1995 he and his colleagues sold the firm to Johnson & Johnson. His revolutionary design for a total knee replacement prosthetic utilized his mechanical engineering skills to replicate the motions of the natural joint to allow for natural rotation.

Longtime champions of pre-college STEM education, Edna and Doug Noiles provided the lead gift to establish the Office of K-12 Outreach at WPI in 2009. Today, their gift funds programming and a full-time directorship position for WPI's STEM Education Center. The



couple also gave generous gifts for the construction of the Rubin Campus Center and made a significant commitment toward the planned construction of the Robert A. Foisie '56 Innovation Studio.

Noiles was honored with the Robert H. Goddard Award for Outstanding Professional Achievement in 1994 and received an honorary doctorate from WPI in 1999. He was a member of Sigma Alpha Epsilon fraternity and the President's Advisory Council. In addition to his wife, he is survived by their four children, 12 grandchildren, and one great-grandchild.

- HARRISON BROWN '39 EE
- LEONARD HERSHOFF '43 EE, Alpha Epsilon Pi
- FRANCIS SANTOM '43 CE
- FRANCIS JOHNSON '45 ME, Phi Kappa Theta
- ROBERT RUTLAND '46 ME
- ROBERT TAYLOR '46 ME, Phi Kappa Theta
- RICHARD HORNE '48 ME, Phi Gamma Delta
- ARNE KELLSTROM '48 EE, Sigma Alpha Epsilon
- RONALD MOLTENBREY '48 CHE, MS CHE, Alpha Tau Omega
- LAWRENCE BRAUTIGAM '49 ME, Sigma Alpha Epsilon
- RICHARD AMIDON '50, ME, Sigma Alpha Epsilon
- JOHN SEGUIN '51 ME, Phi Sigma Kappa
- ROBERT HASNERL '53 ME, Lambda Chi Alpha

- PAUL JALBERT '53 ME, Phi Kappa Theta
- RICHARD BYRNES '54 CHE, MS CHE, Alpha Tau Omega
- KINGMAN WEBSTER '54 PH, D.Sc. (Hon.) '04, Sigma Alpha Epsilon
- ARTHUR RUDMAN '55 ME, Sigma Phi Epsilon
- DONALD BEHRINGER '56 EE, MS ME, Lambda Chi Alpha
- JOHN (JACK) DERBY '56 CHE, Lambda Chi Alpha
- DONALD ILLINGWORTH '58 CHE, Phi Sigma Kappa
- ANDREW SZYPULA '58 ME, Phi Kappa Theta
- JOHN BUCKLEY '61 PH, Phi Gamma Delta
- NICHOLAS CAPUTO '61 ME
- ALFRED IRELAN '61 ME, Phi Sigma Kappa

- NORMAN FINEBERG '63 ME, Alpha Epsilon Pi
- ALLAN LOW '65 CHE, Sigma Phi Epsilon
- ROBERT GRANGER '75 CHE
- NORMAN LAFRENAIS '78 (SIM)
- JOSEPH ORLANDO '78 MS MG
- FRANCIS WALSH '80 CHE
- KENNETH PLOUFFE '81 (SIM)
- PHILLIP FORRISTER '83 (SIM)
- WILLIAM RYAN '83 MGE, Phi Kappa Theta
- AWADH PANDEY '87 (MBA)
- IAKOVOS IAKOVOU '88 ME
- DAVID SAURIOL '89 CHE, Zeta Psi
- MICHAEL MEMBRINO '92 CHE

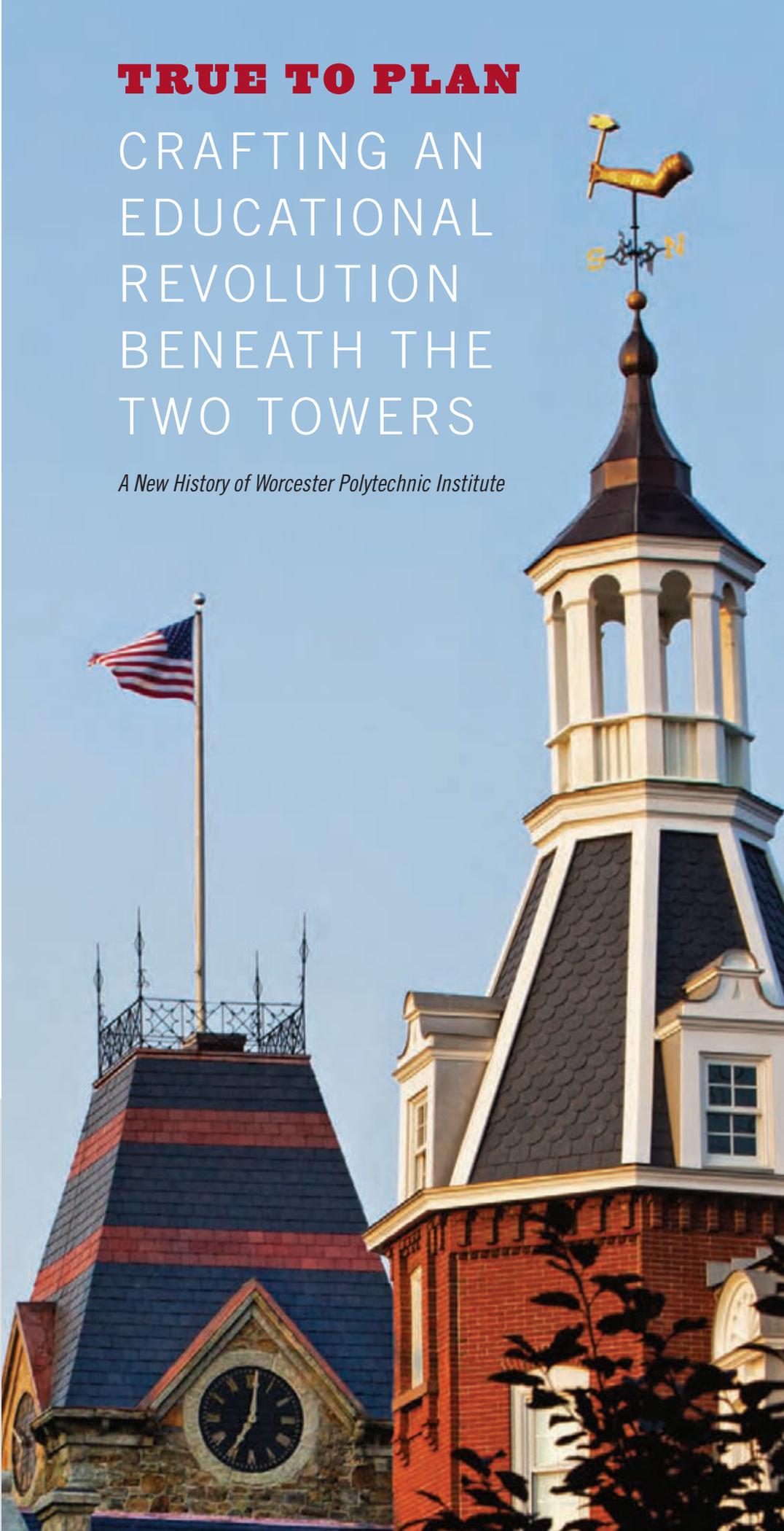
- LISA NORKUS '02 HUA
- ERIC HART '03 CE, Sigma Pi

The WPI Community also notes the passing of **DAVID ALCORN**, former head electrician; **ROGER CARNEY**, retired professor of military science; and trustee emeritus **WALTER BANK '46, '50 (MS EE)**, Phi Kappa Theta. Bank, a retired vice president for DCS Corp., served as Alumni Association president from 1973 to 1975; he received the Herbert F. Taylor Award for Distinguished Service in 1981.

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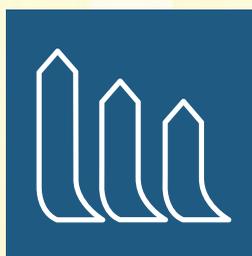
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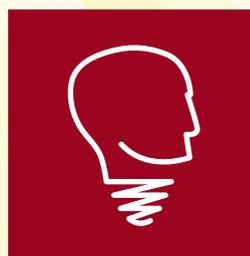
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