

# OnWisconsin

FOR UNIVERSITY OF WISCONSIN - MADISON ALUMNI AND FRIENDS WINTER 2016

## **Jump Around**

Todd Jenkins '96  
parachutes into the  
wild to prevent  
forest fires.

*Page 22*

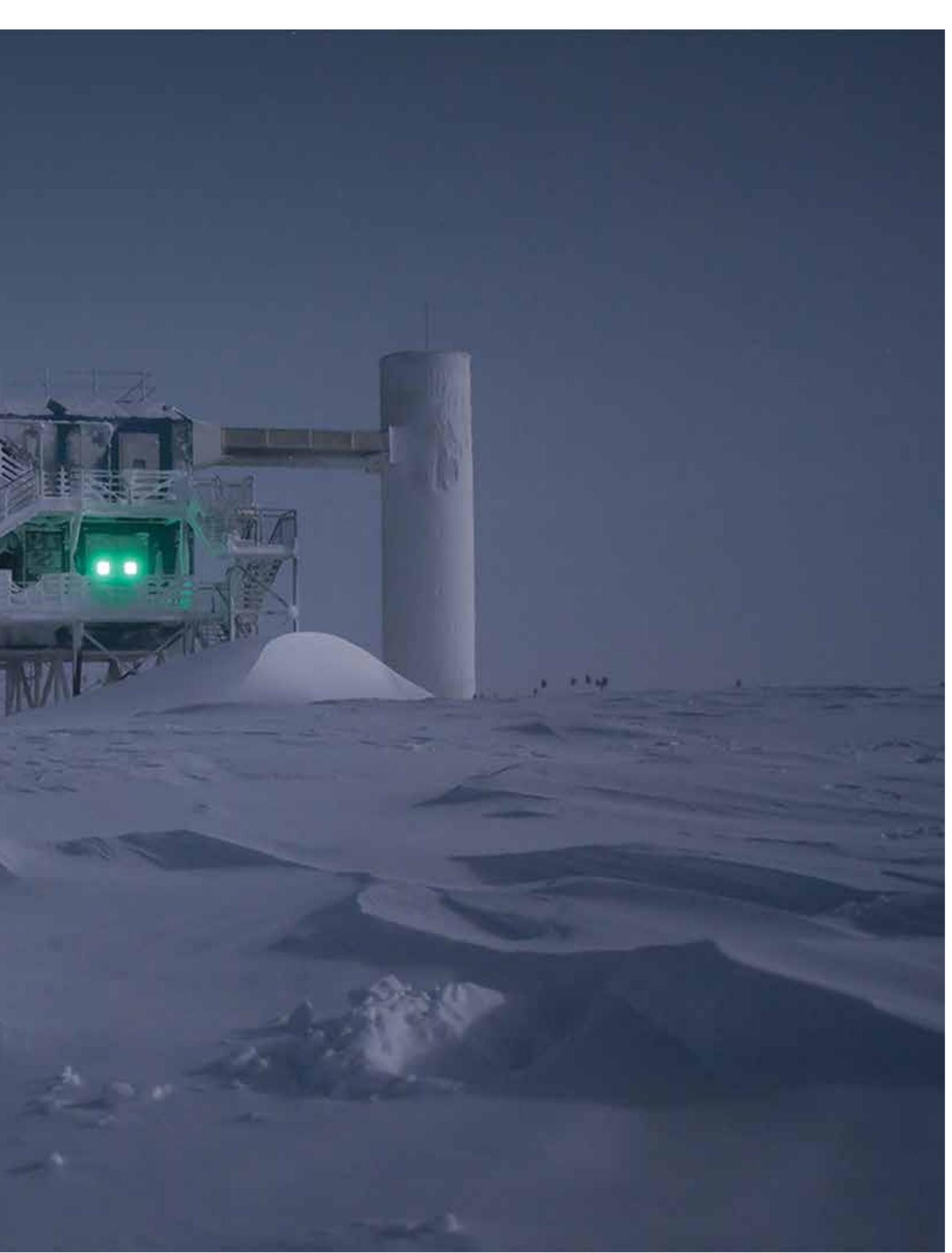


## Vision

This eerie, moonlit setting looks like it could be on another planet, but it's right here on Earth. At the IceCube Neutrino Observatory in Antarctica, UW-Madison operates the world's biggest telescope, buried deep in the ice, and detects tiny particles that could help unravel how the universe was made.

*Photo by Emanuel Jacobi/NSF*







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# OnWisconsin

Agriculture can be an act of resistance. See page 36.

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BRUCE RICHTER

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After 25 years of covering UW-Madison, a university photographer revisits the people and places he's captured to show how they've changed. *By Jeff Miller*



JEFF MILLER

**Cover**  
Todd Jinkins '96 is suited up in full smokejumper regalia. Photo by Jeff Miller.



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# Communications

## ET, Write Home

“One Text Away” (Fall 2016 *On Wisconsin*) shows how much communication between students and parents has changed. As an undergrad in the early '60s, I got one communication per week from home — a letter from Mom. (We didn't have a phone at home.) Although communication with parents is important, there was some advantage in knowing that you were totally responsible for every decision you made.

### **DuWayne Herning MS'68**

*Wausau, Wisconsin*

## Long Overdue

[“This Woman's Work,” Fall 2016] brought me back to my student days in the 1960s. Although I knew Kathryn Clarenbach was connected in some way to NOW (National Organization for Women), the article clarified for me her actual role. She also directed a fellowship program for returning female graduate students. I was one of the fellows, and she was a wonderful mentor. She made it clear that we were not to settle for anything less than full professorships at a time when many women spent their careers at lower ranks. I carried her voice with me throughout my early career. Thank you for the long-overdue recognition.

### **Sylvia Rosenfield PhD'67**

*Arnold, Maryland*

In 1965, I moved to Madison with my husband and two children. I decided to apply to the chemistry PhD program at the UW, even though I had done no work in science since my 1960 undergrad chemistry degree. I sought help from Clarenbach in the Continuing Education for Women program. The admissions adviser initially told me that I would have to retake most of my undergrad chemistry courses. Clarenbach coached me on how to demand acceptance based on my academic record and identified who within the all-male department would likely be supportive of my

admission. Without her help, I could not have negotiated that unwelcoming academic system. She changed my life.

### **Betsy Kean PhD'74, MS'78**

*San Jose, California*



## Camp Randall Arch

The soldier depicted on the Camp Randall arch [Fall 2016 *Destination*] is my wife's great-grandfather, John C. Martin. He was instrumental in working with the state legislature to build the arch and served as the model for the veteran. Above is a photo of Martin in his later years, with his daughter Mary Anne (my wife's grandmother) on the right.

### **David Capp '72**

*Beverly Shores, Indiana*

## Evicted Excerpt

As a homeless Badger and Wisconsin native who has been working on issues of homelessness, poverty, hunger, housing, etc. for four years, I can't tell you how much I appreciate “Locked Out.” I look forward to helping welcome Matthew Desmond to campus this fall.

### **Brooke Evans x'18**

## Memories of Ali

As a senior, I attended the Muhammad Ali speech at the Stock Pavilion [Fall 2016 *Bygone*]. I remember him saying something to the effect that the light would shine through. At that moment, the clouds parted, allowing the sun to shine through the dingy gray skylights. Without missing a beat, Ali replied, “See, I told you so.”

### **Darvin Kapitz '69**

*Westborough, Massachusetts*

## PICTURE SHOW

Much of the stunning photography featured in the pages of *On Wisconsin* is captured by UW–Madison photographers Jeff Miller (see “Then and Now,” page 46) and Bryce Richter. See more of their captivating work at [onwisconsin.uwalumni.com/vision](http://onwisconsin.uwalumni.com/vision).



JEFF MILLER

Chairs on Lake Mendota



BRUCE RICHTER

Badger spirit at the Final Four



JEFF MILLER

Fun with frigid temperatures



BRUCE RICHTER

Research in the field (or forest)



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COLLEGE OF AGRICULTURAL AND LIFE SCIENCES

A potato is an unlikely hero. Or villain. While it's a plucky little tuber, the potato is hardly a flashy organism. Starchy and bland, it's the partner to meat in the definition of standard fare.

That's part of what makes Nicole Miller's article "Potato, Interrupted" (see page 42) so interesting — its hero (or, again, villain, depending on your point of view) is a spud.

The article is also interesting in that it illustrates how UW-Madison — which has a storied history in the study and improvement of food — is still challenging and changing what we know about what we eat.

You may know that the UW is where vitamin A was discovered. Names such as Steenbock and Elvehjem and Babcock adorn campus buildings because of the roles those scientists played in learning about and improving our food supply. UW researchers helped develop the state's dairy industry, as well as its connection with cranberries and potatoes. (Ever heard of the Snowden potato? The late Stan Peloquin MS'51, PhD'52 developed it here, and for many years, it was the most popular source of potato chips in the world.)

UW professor Jiming Jiang's potato — the protagonist of our story — is more problematic in the popular imagination. Although it's immune to late blight, Jiang developed it using genetic engineering. Genetically modified organisms (GMOs) are controversial, and some people may wonder why the UW would be involved in creating foods that many Americans find dubious.

But the purpose of a university is to expand knowledge. In order to evaluate GMO foods, we need to know the facts. UW-Madison excels at exploring what we eat so that we can make informed choices.

So who wants a chip? You know you can't eat just one ...

At the Hancock Agricultural Research Station, UW-Madison has conducted potato studies for more than 60 years.

**John Allen**  
*Associate Publisher*



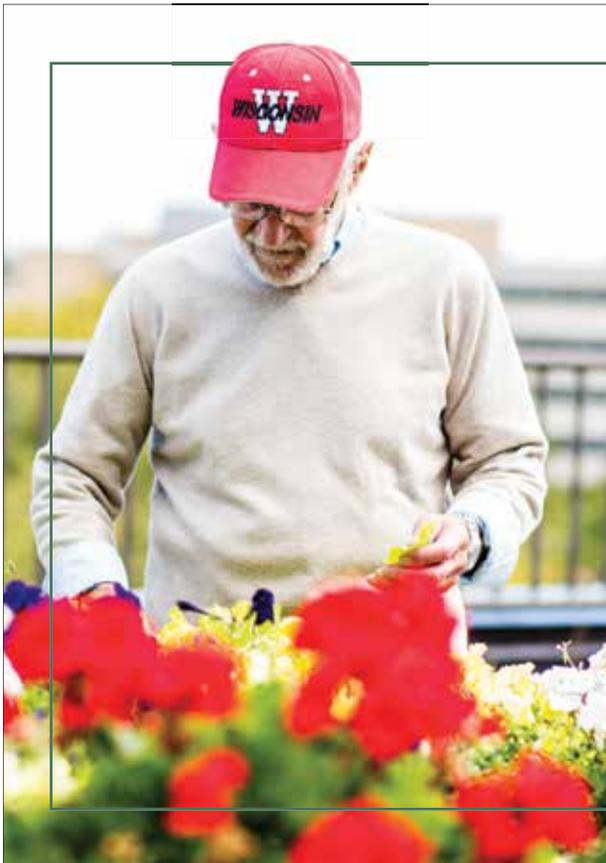
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## Time for a Change

*Chancellor calls for a renewed investment in the UW.*

Five of the last six state budgets cut funding to the University of Wisconsin System, so Chancellor **Rebecca Blank** has a simple message for alumni and legislators this time around: it's time to reinvest in the UW.

At a campus forum this fall, Blank told faculty, staff, and students that the cuts threaten the quality of the state's flagship university. As some top faculty and staff depart, its reputation suffers.

Wisconsin is one of just nine states that have reduced support for higher education over the last two years. Thirty-nine states increased funds to colleges and universities. And, Blank noted, the UW's peers are investing in new programs and research centers.

"My biggest challenge as chancellor is to first make sure this university can find a way to stabilize its finances so we aren't constantly facing budget crises every two years of the sort we've seen this biennium," Blank said. "But, second, I need to do better than that. I can't just stop the cuts; we need to get ahead. I have to find the funds that help us reinvest in the university."

Blank supports a board of regents request for \$42.5 million in new funding to train students in Wisconsin's most high-demand fields, such as computer science, business, nursing, and engineering. The proposal also emphasizes career initiatives, funding for building maintenance and renovation (see Calculation, page 14), and operational flexibilities.

That investment would be welcome news to professors who have seen some colleagues take positions at other colleges and universities. In a recent column in the *Milwaukee Journal Sentinel*, geography professor **Jack Williams** (see Mammoth Island, page 19) explained why he explored a job at another university — which offered better pay and more time to pursue research — and why he decided to stay.

"UW-Madison and the state universities are one of the great achievements of our country," he wrote. "In this accelerating world, our mission of world-class research and education is ever more important. I've stayed to serve this state, and I remain hopeful that the state will return to supporting its great university."

UW-Madison receives funding through five main channels: federal revenue, state revenue, gifts from donors and nonfederal grants, student tuition and fees, and revenue from auxiliary operations, such as



BACKGROUND IMAGE ISTOCK/PHOTO ILLUSTRATION

University Housing and the Wisconsin Union. The state share, which used to be the largest source of UW funding, is now the smallest of those five, at just under 15 percent. Blank noted that state funds remain vital to the UW's teaching, research, and outreach missions because they leverage funds from the federal government and other sources.

Wisconsin Governor Scott Walker is expected to deliver his budget proposal to the legislature early next year. He has indicated that there could be new funding for the UW System tied to certain performance measures, such as graduation rates and job placement.

During the last year, Blank has traveled across the state, meeting with legislators and business leaders and sharing the message that the UW is an economic engine for Wisconsin. A new ad campaign using private funds employs a variety of media, including billboards, to reinforce that theme by highlighting the contributions of UW-Madison alumni in each of the state's 72 counties.

From a social worker in Grant County to a cranberry grower in Wood County to a language teacher in Menominee County, the stories are designed to demonstrate the influence of UW alumni on their Wisconsin communities.

"We won't just be making our case to legislators," Blank says. "We'll go directly to the people of the state in new and creative ways. We can't take for granted that everyone is aware of all of the ways in which this university and its alums are involved in communities across the state."

STAFF

Billboards placed around the state that tout the contributions of UW alumni are part of an unprecedented effort ahead of the next state budget. Vincent Lyles '84, JD'87 oversees the Boys & Girls Clubs of Greater Milwaukee's more than 800 employees and nearly 600 volunteers.



GEORGE CLERK/STOCK

**POKÉMON WHO?**

Even if you didn't spend the summer desperately seeking a Dratini, you've surely heard of Pokémon Go, the augmented-reality game that captured audiences when it was released in July. As reviews came in, there was overarching praise for the physical nature of the game — Vox.com called it the "greatest unintentional health fad ever." But before Pokémon Go, a very similar augmented-reality game was developed on campus.

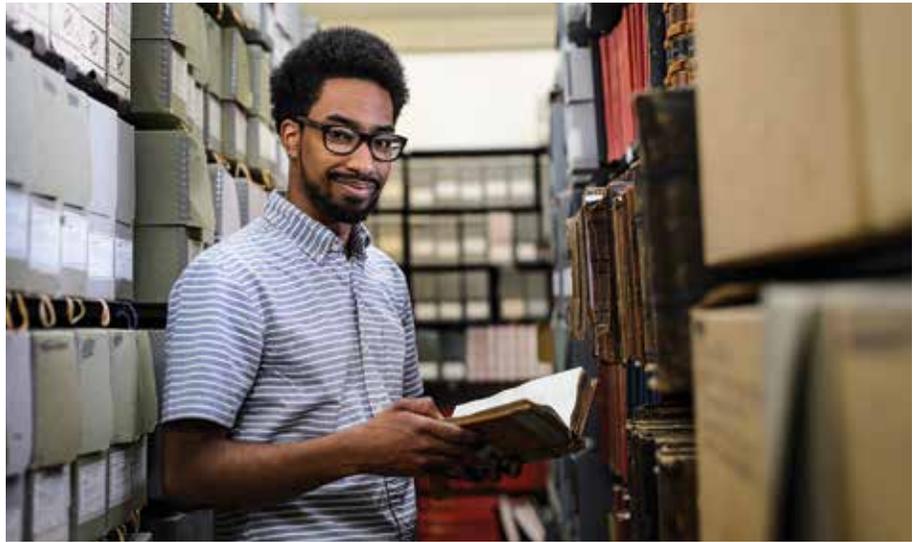
Researcher **David Gagnon '04, MS'10** and his team at the Wisconsin Institute for Discovery's Field Day Lab created Kkomoman in 2012. Their mission was to use smartphone technology to get kids moving. "How do we leverage this GPS-based technology that we've got," Gagnon asks, "and create games that are intentionally designed to get kids to run around?"

In Kkomoman, a user has to be the first to arrive at a location to battle and catch the Kkomoman. In Pokémon Go, creatures show up in various locations and are caught by throwing virtual Pokéballs.

Gagnon welcomes the comparison. "It's super honoring," he says. "It's really exciting to start thinking about ways that place and computers and information can start to intersect. Pokémon Go just gives us a shadow of that."

**CHELSEA SCHLECHT '13**

**Diversity's Complex History**



JEFF MILLER

When some schools barred the door, UW-Madison welcomed black students from around the country who then went on to successful careers in journalism, law, medicine, and a host of other fields.

"When I told my dad I was going to Wisconsin, he said, 'You could go to Chapel Hill; black people don't live in Wisconsin,'" recalls **Harvey Long PhDx'16**, a doctoral student in library and information studies from North Carolina. "[But] black people have been coming to the university for a long time."

Long — who recovered some of this campus history by completing an archives-based examination of the period between 1875 and 1940 — says the earliest known black student at the UW was **William Noland 1875**, who was born in Binghamton, New York. After graduation, he attended the law school for two semesters before dropping out and moving to Washington, DC.

"He committed suicide in the 1890s. Not a lot is known about him," Long says. Three sisters — **Ida '40, Carlita '42, and Frances '44 Murphy** — came from Baltimore, starting in 1935. They earned journalism degrees and returned home to help keep their father's newspaper, the *Baltimore Afro-American*, afloat.

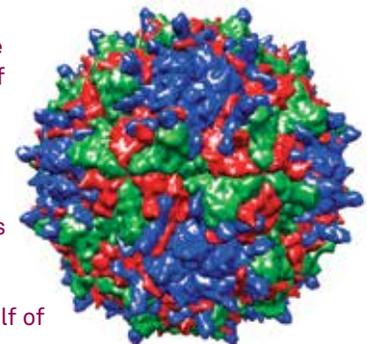
Now, with increased calls for greater diversity and inclusion, Long wants the university community to understand black students' long, complicated history at the UW and how race played a key role in their isolation from campus activities.

"The state was receptive, but it wasn't perfect," he says. "It's like you get an invitation to a party, but you might not have the right clothes, or you might not be asked to dance. The University of Wisconsin was not paradise, but it was a step up for many of these students."

**DAVID J. TENENBAUM MA'86**

**Not-So-Common Cold**

UW researchers, working with scientists at Purdue University, have identified the atomic structure of rhinovirus C, a variant of the common cold that can lead to severe asthma attacks in children. **Ann Palmenberg PhD'75**, a UW professor of biochemistry, worked with Purdue's Michael Rossmann to lead the study, which may advance efforts to develop vaccines or antiviral drugs. Rhinovirus C was discovered just a decade ago, and health officials believe it's responsible for more than half of hospital stays for children with asthma.



JEAN-YVES SGRÖ, DEPARTMENT OF BIOCHEMISTRY

# Bygone Campus Reacts to WWII



UW ARCHIVES S07306

No exclamation point was needed, but the editors of the December 9, 1941, *Daily Cardinal* used one anyway: “We Are at War!” The lead story following the December 7 attack on Pearl Harbor noted that most on the campus were wondering, “What will happen to me?” Not long after, many UW students and staff left Madison to join the military. Some students would lose their lives on distant battlefields, including star football player **Dave Schreiner ’43**, a Marine killed on Okinawa.

UW-Madison Chancellor **Clarence Dykstra** tried to calm

fears. In a letter on the student newspaper’s front page, he assured students that they would be ready if needed for national service. Later, students sang carols and “Varsity” at a convocation inside a packed Field House, where Dykstra gave a speech that expanded on that theme. “We are ready for a great all-out effort,” he said. “There is no question of sacrifice. There is only the deep desire to be useful to our common country in this period of crisis.”

*Daily Cardinal* sports pages were filled with stories about the future of Badger athletes, the possible disruption to team sched-

A capacity crowd of students, faculty, and community members gathered inside the Field House on December 12, 1941.

ules, and historical accounts of how World War I affected UW sports.

Though it was a time of shock and dread, a *Cardinal* editorial published two days after the attack sounded a note of hope and reconciliation: “We may hate the war lords of Japan for plunging us into the blood bath we are facing, but at the same time, we must remember that the people of Japan breathe the same air, have the same desires, suffer the same sorrows, and shed blood very much like our own. We cannot hate our brethren.”

**MEG JONES ’84**

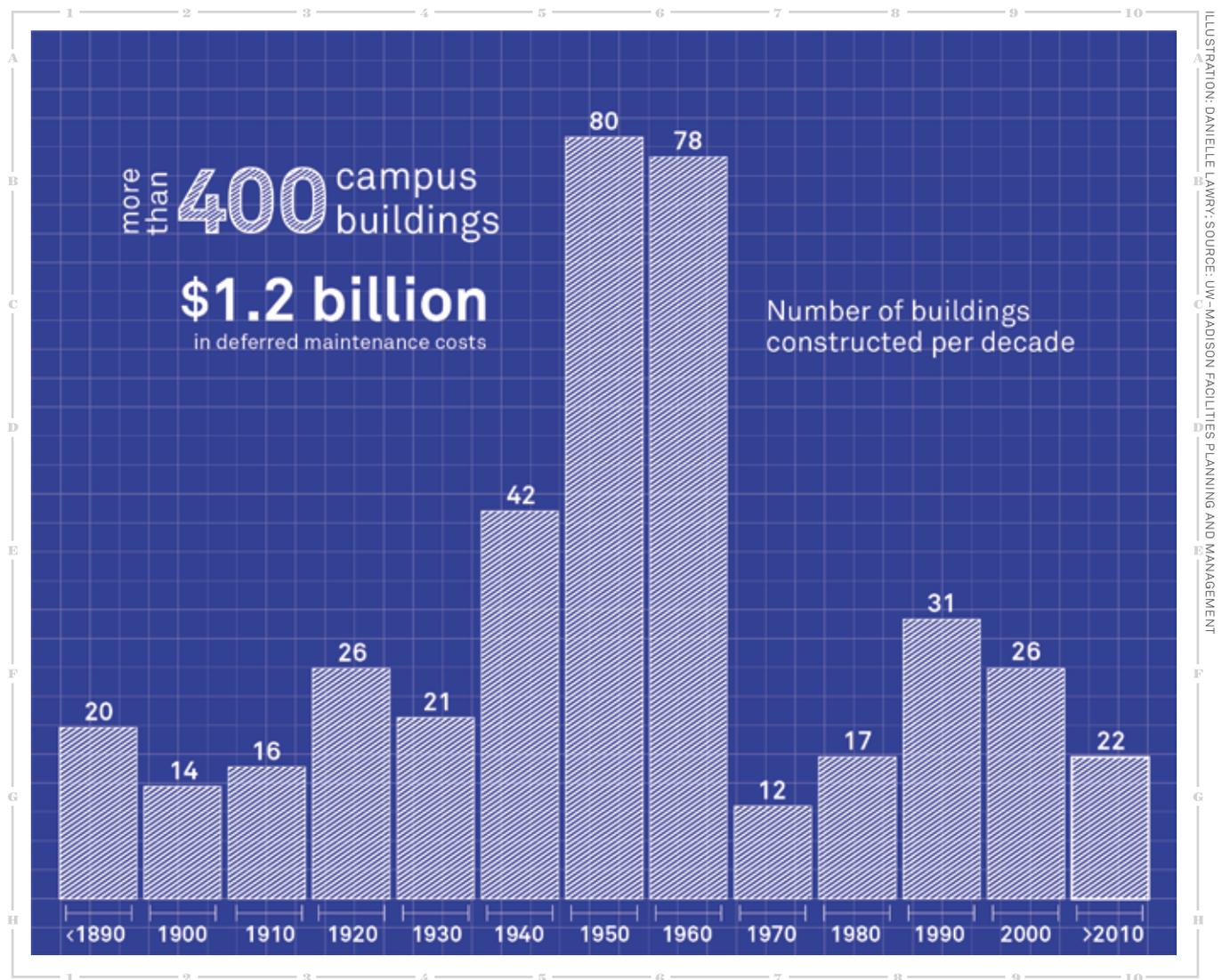


ILLUSTRATION: DANIELLE LAWRY; SOURCE: UW-MADISON FACILITIES PLANNING AND MANAGEMENT

## A Long To-Do List

After World War II, American universities experienced a building boom to handle the flood of incoming students. At UW-Madison, more than 40 percent of campus buildings were constructed in the 1950s, '60s, or '70s.

But volume meant speedy construction, producing structures that haven't stood the test of time and now need attention.

That's what William Elvey had to worry about — a lot — as UW-Madison's associate vice chancellor for Facilities Planning and Management. He likens the university's backlog of deferred maintenance to what happens when a snowball rolls down a hill:

it gets bigger. "It keeps me awake at night," he said before leaving the UW to work for Children's Health System of Texas.

The UW's current deferred maintenance costs are estimated at \$1.2 billion and continue to grow. Unlike previous state budgets, the most recent budget didn't provide \$20 million a year in borrowing to cover the costs of capital projects that typically cost more than \$50,000, such as replacing roofs, and less expensive maintenance work, such as roof patching.

"[The Humanities Building] is the poster child for deferred maintenance," Elvey says. The concrete exterior of the 1960s-



**Chancellor Rebecca Blank** says it is critical for the next budget to include funding to complete needed repairs and upkeep on buildings across campus.

JEFF MILLER

era building is in poor condition and has exposed rebar. Elvey says it reminds him of the Tom Hanks movie *The Money Pit*, about an unending home renovation project.

Over the summer, university officials elected to transfer nearly \$2 million from academic and research funds to cover repairs to the exterior and roof of the Humanities Building and 23 other projects that were critical to safety, including fire escapes.

For the next two-year budget, UW System officials have requested \$100 million to restore the money campuses received in the past for repair and maintenance projects.

**JENNY PRICE '96**



MARCCOPHOTO/ISTOCK

## I Quit (Maybe)!

Electronic cigarettes can't be sold or marketed as smoking cessation aids, but many smokers see so-called vaping as a desirable way to quit.

The problem is, many of them get "stuck" using both this option and traditional cigarettes, says **Doug Jorenby MS'86, PhD'91**, director of clinical services for the UW's Center for Tobacco Research and Intervention. These "dual users" are a key part of an ongoing study of e-cigarettes the center is conducting with a \$3.7 million federal grant.

Over the next two years, UW researchers will observe a group of traditional smokers and a group of dual users, monitoring their health overall and measuring the effects vaping has on their lung function. The study will also see whether traditional smokers start vaping and if dual users quit smoking entirely or go back to smoking only traditional cigarettes.

The big three tobacco companies own 80 percent of the biggest-selling brands of e-cigarettes, Jorenby notes. "From a public health perspective, we're really concerned about dual users," he says.

"They may be people who would otherwise quit smoking completely, if they used known evidence-based treatments."

The center recently conducted another study that found that even though the vast majority of dual users enrolled began vaping because they wanted to stop smoking, their motivation to quit was actually much lower than people who were solely smoking traditional cigarettes.

"The assumption is that vaping is a reduction in risk, because people aren't getting carbon monoxide every time they puff some vapor into their lungs," Jorenby says. "But with dual users, it may not make any difference."

**JENNY PRICE '96**

## Have Botox, Will Travel?

*Doses of Botox and related botulinical drugs are used to treat conditions including frown lines, disabling muscle spasms, and migraine headaches. They are typically measured in trillionths of a gram, and targets are carefully chosen to silence only the desired motor nerves.*

*UW neuroscience professor **Edwin Chapman** and his colleagues have found clear evidence that the powerful toxin moves between mouse neurons in a lab dish, which means it may travel beyond its injection site in humans. The study raises questions, including whether only the local effects matter for medicine. If that's the case, tomorrow's versions of this ancient toxin molecule could be genetically engineered to alleviate symptoms from wrinkles to severe muscle spasms without moving beyond the target neurons.*

## NEWS FEED

**RateMyProfessors.com** ranked UW-Madison number-one in the country, based on ratings from students. No other Big Ten university was listed among the top 10.

JEFF MILLER: UW ARCHIVES



**The Times Higher Education World University Rankings** listed UW-Madison 45th globally, and 23rd among American institutes of higher learning. That's up three places from 2015. Look out, Heidelberg University. Our eyes are on you next.



**UW-Madison marked the centennial** of teaching America's first Yiddish-language college course this fall. The class, Elementary Yiddish, was taught by assistant professor Louis Bernard Wolfenson 1901, MA1902. Today, the Jewish studies department offers courses in Yiddish literature and culture and in Yiddish song.



BRUCE RICHTER/SCHOOL OF JOURNALISM AND MASS COMMUNICATION

**MONEY MATTERS**

Nearly two-thirds of Americans couldn't pass a basic financial literacy test, a recent national survey found. The results aren't surprising to **J. Michael Collins**, an associate professor and faculty director of the UW's Center for Financial Security, who served as an adviser for the 2013 study. Improving financial literacy is like diet or exercise: the first steps are paying attention and making it a priority, he says, adding, "People too often ignore or avoid managing or even talking about money — it's such a taboo!" Collins says having savings is critical — even if you have credit available — to keep a financial mishap from turning into a catastrophe. And consumers also must understand how fees for financial services affect their finances and be thoughtful about the debt they decide to take on.

**KÄRI KNUTSON**

**CLIMATE CHAMELEON** A UW research facility on the west side of campus has a big secret: it can be whatever you want it to be (within terrestrial reason). Built in the 1960s by the National Science Foundation, the Biotron can simulate every climate on Earth except Antarctica. Labs spread across three floors can deliver temperatures from -4 to 113 degrees Fahrenheit and relative humidity from 100 percent down to nearly none. The building even features rooms tall enough for growing trees. That flexibility draws commercial clients who subject their products to extremes and benchmark their performance. It also gives academic researchers the chance to design experiments that couldn't happen in conventional lab space.

*“Journalists are no longer gatekeepers in the way they were. ... Since the 1990s, it has become easier for politicians to speak more directly to the voters, and it is easier for people to tailor their own media diet to their own preferences.”*

— Lucas Graves, assistant professor in the School of Journalism and Mass Communication, in an interview with Vox.com about fact-checking and his forthcoming book, *Deciding What's True: The Rise of Political Fact-Checking in American Journalism*.



**NEWS FEED**

**Astronomy professor Ellen Zweibel** received the Maxwell Prize for Plasma Physics. In honoring Zweibel, the prize committee cited her “seminal research on the energetics, stability, and dynamics of astrophysical plasmas, including those related to stars and galaxies, and for leadership in linking plasma and other astrophysical phenomena.”



**The UW's Institute for Research on Poverty, now in its 50th year, has been awarded a five-year, \$9.5 million contract to serve as the nation's only federally funded poverty research center.**



**Hoping to explore the UW's animating mission**, the UW–Madison sociology department created a new course (Sociology 496: “FORWARD? The Wisconsin Idea, Past and Present”) that involves a weekly public lecture series. Faculty spoke about different aspects of the Wisconsin Idea and video of their lectures is archived online at [wiscidea.com](http://wiscidea.com).

SARAH MORTON; JEFF MILLER

## Conversation *Michael Knetter*

Michael Knetter left his position as dean of the Wisconsin School of Business in 2010 to become president and CEO of the UW Foundation, the official gift-receiving organization for UW-Madison. In 2013, the foundation helped the university launch All Ways Forward, a comprehensive campaign aimed at raising \$3.2 billion by 2020.



### ***Where do things stand with the campaign?***

By midyear this year, nine months after the campaign was publicly launched — but three years after we had started the quiet phase of counting gifts — we are over halfway to our \$3.2 billion goal. But while we're thrilled to be over halfway there, we can't take for granted that we will repeat the success of the transformational gifts by the Morgridges and Nicholases, or that the economy will remain robust throughout the remainder of the campaign.

### ***Alumni have a lot of concern over the UW's relationship with the legislature. How do you see this evolving?***

It's been a really extraordinary period for the University of Wisconsin in terms of the degree of tension that exists right now between our elected officials and the university over both resources and regulations, and even the very essence of our being, the definition of the Wisconsin Idea. Many public universities are facing the same tension, particularly in regions that aren't growing a lot. And [Wisconsin is] not. That's put a lot of pressure on the state's finances and made it more difficult for the state to grow its contribution toward higher education at the same rate as private universities' revenue streams have been able to grow.

### ***How are private institutions different from UW-Madison?***

Private universities rely on high tuition and philanthropy. It's been a good period for increasing tuition, because the value of university degrees has gone up a lot. So if you don't need to be burdened by concerns about affordability, that's a great revenue opportunity. And it's been a great period for philanthropy because, ironically, of the increasing concentration of wealth. We are fortunate that Wisconsin alumni who have attained great financial success have been very generous to UW-Madison. Alumni such as the Morgridges and Nicholases, who built successful businesses, are now transforming the educational experience for the benefit of future generations.

### ***Not everyone can give a major gift. What would you tell those who ask what difference their \$50 or \$100 makes?***

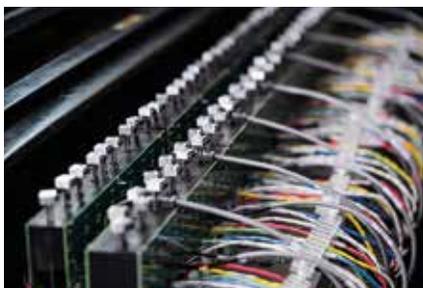
When you go to Camp Randall, there are always some people who start the Wave, but it only works if everybody participates. The Wisconsin way to appreciate the gifts others have made is to say, "Now I'm going to do my part, too." All great universities have some big donors. But our strength isn't in having a high proportion of wealthy alumni. We don't. Not higher than Harvard, Stanford, Dartmouth, Princeton. But we have a lot more alumni than they have. Our strength is in our numbers.

*Interview conducted, edited, and condensed by John Allen  
Photo by Jeff Miller*

# Exhibition *The Hyperpiano*



JEFF MILLER (4)



In October, campus concertgoers heard something no music lover had ever heard before: the hyperpiano.

The invention of UW music professor **Christopher Taylor**, the hyperpiano features a custom-built, two-keyboard console linked electronically to two separate, normal pianos fitted with special player mechanisms. That structure offers players a much broader range of possibilities than a standard piano does.

Taylor developed the instrument on campus, working at the Morgridge Institute in the Wisconsin Institutes for Discovery.

“Thanks to the way in which the instrument’s musical information gets relayed in digital form,” Taylor says, “it will be possible not only to span intervals with a single hand far beyond the reach of a normal hand on

**Christopher Taylor shows off the internal workings of the hyperpiano. The electronics inside the double-keyboard console connect to two separate pianos.**

an ordinary piano, but [also] to play rapid passages in which every tone one hears is actually a 10-note composite chord. The ability to produce musical sounds emanating from two opposite sides of the stage will also open up a range of appealing possibilities.”

Taylor played one of his signature pieces: Bach’s “Goldberg Variations,” the composition that helped make his reputation as a leading concert pianist.

“Given that I will be extremely busy with final refinements and debugging of the instrument’s internal software, I won’t have time to learn anything new,” he said before the concert. “But plans are afoot for new compositions and arrangements, by myself and also other composers.”

**JOHN ALLEN**



AUNT\_SPRAY/ISTOCK

**MAMMOTH ISLAND**

By ten thousand years ago, woolly mammoths had gone extinct from mainland Asia and North America. But a population of island-dwelling mammoths survived on a remnant piece of land once part of the Bering Strait land bridge.

UW geography professor **Jack Williams** and graduate student **Yue Wang MS'13** contributed to a new study that provides clear evidence of the mammoth extinction on tiny St. Paul Island around 5,600 years ago. A lack of fresh water and changing environmental conditions, including rising seas, drove the demise. The researchers say the findings have implications for low-lying islands, and the people and animals that live on them today.

"I can't think of any other case where freshwater availability was the driver of extinction," says Williams, who is also director of the UW's Center for Climatic Research. "On small oceanic islands, freshwater can be a limited resource."

Williams and collaborators from across the United States rode snowmobiles to one of the few sources of freshwater on the island off the coast of Alaska, a crater lake surrounded on three sides by steep rock walls. The scientists drilled through the frozen lake surface and took samples of sediments beneath the lake floor, which provided snapshots of the environment through time.

The UW researchers focused on the island's vegetation and ruled out changes to their food sources as contributors to the mammoths' extinction. However, sediment cores showed mammoths likely stripped the area around the lake of vegetation, potentially speeding up erosion and harming water quality.

**KELLY APRIL TYRRELL MS'11**

**A New Angle**

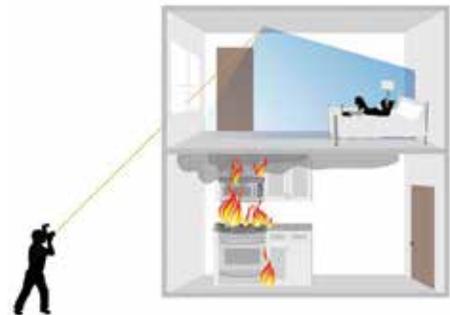
The selfie stick's got nothing on a camera capable of a slick optical trick: snapping pictures around corners.

The technology pioneered by **Andreas Velten**, an imaging specialist with the Morgridge Institute for Research, uses pulses of scattered light photons that bounce through a scene and are recaptured by finely tuned sensors connected to the camera. Researchers use the resulting information to digitally rebuild a 3-D environment that is either hidden or obstructed from view.

The technology has generated excitement about potential applications in medical imaging, disaster relief, navigation, robotic surgery, and national security. The UW team is one of eight receiving grants from the U.S. Defense Department's Advanced Research Projects Agency to probe different forms of non-line-of-sight imaging.

Velten and **Mohit Gupta**, a UW assistant professor of computer sciences, are examining how far they can push the quality and complexity of these pictures — a fundamental step before devices can become reality.

**BRIAN MATTMILLER '86**



MORGRIDGE INSTITUTE FOR RESEARCH

**NEWS FEED**

The La Follette School of Public Affairs will sponsor a research competition to fund work that addresses difficult public policy and governance issues, thanks to a \$1.5 million gift from Herb Kohl ['56] Philanthropies.



The Center for Healthy Minds at UW-Madison and the Madison Police Department are launching a pilot study to focus on whether mindfulness-based practices can help improve officers' abilities to manage their daily and occupational stressors.



Geoscience professor **Shanan Peters** has developed a free app called Rockd, which taps into databases on geology and fossils and offers both amateur rock lovers and professional geologists a chance to contribute to geologic knowledge.

JEFF MILLER: EMILY NORTON/ISTOCK

# Contender *Tionna Williams*

Tionna Williams '19 finished her first season for the Badger women's volleyball team 180 degrees from where she started.

By the end of that season, the six-foot-two-inch middle blocker, now a sophomore, led the team in blocks and ranked fourth in the Big Ten with 1.31 blocks per set. But the player who garnered high expectations as a top-ranked high school prospect from Fort Wayne, Indiana, fought nerves at first. Early on, Wisconsin coach Kelly Sheffield said Williams was on the right track but "had a long ways to go."

Williams admits she didn't anticipate the pressures of college athletics, and she was battling personal turmoil following the death of a close friend.

**Sophomore Tionna Williams is a defensive force at the net for the Badger volleyball team.**

But the turning point came when she found herself defending her devotion to the game to her coaches.

"I wanted to prove to them and my teammates that I'm all in, and I'm here to stay, and this is what I want to do," she says.

Highly self-critical, Williams just needed a little prompting. She began exhibiting more confidence on the court and attracted the national spotlight. Her 13 blocks and 14 kills in victories over Illinois and Northwestern won her Big Ten defensive player

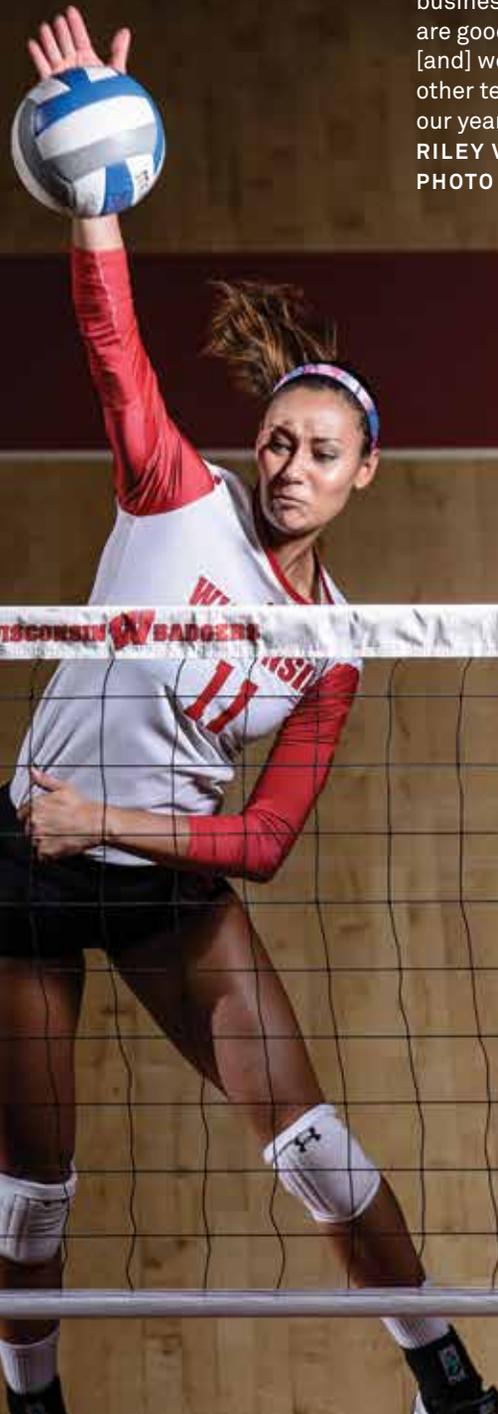
of the week honors.

The team advanced to the Sweet 16 of the NCAA tournament and came into the 2016 season ranked fourth. And this October, the Badgers were ranked number-one for the first time in program history.

This fall, Williams picked up where she left off. She has continued winning Big Ten defensive player of the week honors, including a nod for her eight blocks in the Badgers' road win over number two Texas.

"We all have unfinished business," Williams says. "We are good enough, we can do this, [and] we worked harder than any other team in the country. This is our year."

**RILEY VETTERKIND '17  
PHOTO BY BRYCE RICHTER**





TROELS GRAUGAARD/ISTOCK

# Give Them a Break

*UW researchers study specialization among youth athletes.*

More young people are focusing their efforts on excelling at a single sport, instead of playing a variety throughout the seasons. But while sports specialization is a hot topic, there is a surprising dearth of research on this issue.

In an effort to bring some clarity, a research team of UW-Madison experts collected data and produced a groundbreaking, one-year observational study published earlier this year by the *American Journal of Sports Medicine*. The researchers found that 36 percent of athletes were considered highly specialized, meaning that they trained in one sport for more than eight months in a year. They also determined that these athletes were more likely to report a history of knee and hip injuries.

“Physicians are way ahead of the research in this area and, anecdotally, they report that they are seeing more kids in their clinics who have injuries that used to be found only in older athletes,” says assistant professor **David Bell**, the report’s lead author and director of the Wisconsin Injury in Sport Laboratory. The report’s coauthors included kinesiology graduate students **Eric Post PhDx’18** and

**Stephanie Trigsted PhDx’17**, associate researcher **Scott Hetzel MS’07**, senior scientist **Timothy McGuine MS’86, PhD’05**, and associate professor **Alison Brooks**.

Since the original study was published, the research team has been busy replicating the initial findings with slightly younger athletes, ages 12 to 14, and larger cohorts of high school student-athletes. Bell says this work consistently shows that about 35 percent of young athletes are highly specialized — and that these athletes are two to three times more likely to have a knee or hip injury.

Asked if there is a consistent takeaway from this work for parents, Bell says simply, “Make sure your children are getting breaks in competition.”

Bell hopes to build on these findings and share future research results with young athletes, parents, and coaches. “There are so many great aspects to sports participation, and we don’t want this information to scare athletes or parents,” he says. “We just want them to be wise consumers and to participate as safely as possible.”

**TODD FINKELMEYER ’92**

## TICKER

**UW postdoc Traci Snedden**, from the School of Nursing, is investigating the long-term effects of concussions on student-athletes’ academic performance. Snedden hopes to enroll 200 Madison-area high school athletes in the longitudinal study.



**Badger basketball point guard Bronson Koenig** joined protesters of an oil pipeline under construction near the Standing Rock Indian reservation in North Dakota in September. Koenig, a member of the Ho-Chunk Nation, also put on a free, three-hour basketball clinic for Native American youths.

UW ATHLETICS (4)



**Barry Alvarez** has signed a contract extension through January 31, 2021, to continue serving as Wisconsin’s athletic director. Alvarez has been athletic director since 2004, and retired from coaching the Badger football team after the 2005 season.



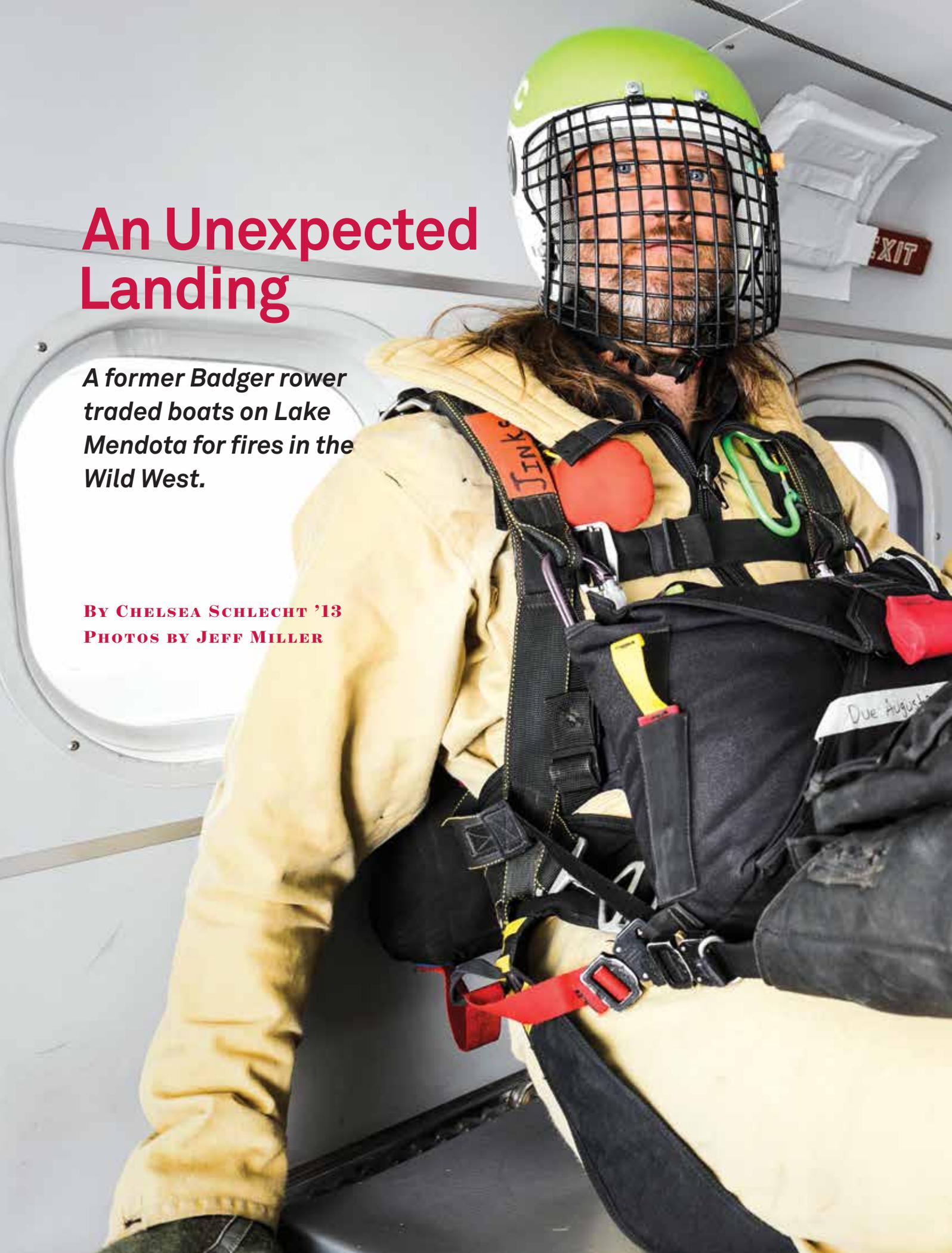
**UW wrestlers Isaac Jordan and Connor Medberg** received

invites this fall to the National Wrestling Coaches’ Association All-Star Classic, an annual event that features 20 top collegiate wrestlers from around the country. It marked the fourth time in program history that the UW has had multiple invitees in one year and the first time since 1980.

Former Badger **Joe Pavelski x’08** was named captain of the ice hockey world cup’s Team USA. Pavelski, who plays for the NHL’s San Jose Sharks, was on the UW hockey team from 2004 to 2006.



GERRY ANGLIS/ICON SPORTWIRE VIA AP IMAGES



# An Unexpected Landing

*A former Badger rower traded boats on Lake Mendota for fires in the Wild West.*

**BY CHELSEA SCHLECHT '13**  
**PHOTOS BY JEFF MILLER**



### “Roll call. Ro-o-o-o-ll call.”

The loudspeaker crackles and reverberates through the loft. A steady stream of denim and flannel flows into the ready room as twenty-some men take seats on wooden benches. Roll call begins.

*Atkins? Yo. Hayes? Here. Zuares? Here.* “Jinks?”

“Yah!” shouts a tall man with pigtail braids. He’s surveying the crowd from the back of the room, arms folded across his chest. You can barely see that, beneath the bill of his faded green baseball hat, his eyes are a deeper blue than the expansive sky that’s opening up over Boise today.

Roll call gives way to today’s business. Mainly, it’s lost items. There aren’t any extra radio antennas, so if you didn’t keep track of yours after last season, search through people’s gear. The keys to the brown 4x4 pickup truck and the key to the operations room are missing. Also, a distressed husband misplaced his wedding ring in the weight room. “He said, ‘If it’s put back where it was, I won’t ask any questions,’” says the man at the front. Someone whistles a descending scale. Jinks starts to smile.

“Zuares, go get that ring from the pawn shop!” a voice from the front shouts.

“Hey, that’s a hate crime,” snips someone in the middle row. Laughter rises until a nasal voice fires back, “Whatever, Trump!”

The room erupts. Jinks tries to refocus: “I was looking for the keys to my old truck last night at home, and I can’t find ’em ...” he starts, and the room quiets. Beanies and baseball hats snap around to the back of the room. “So if any of you guys were in my house ...” his words bubble into a laugh. The men follow suit.

The tall man with the pigtails is Todd “Jinks” Jinkins ’96, deputy chief of the Great Basin Smokejumpers. It’s refresher training week for the veterans, and today is the first active jump after winter break. Smokejumpers are the navy SEALs of firefighting. They rely on elite skills to launch the initial attack on a wildland fire. Fighting fires in the wild is highly specialized work, but smokejumping is more specialized still. They don’t battle raging, 50-meter-tall blazes; instead, the crew of eight, far from help, works on small fires before they grow into monsters like the one that consumed 3,000 acres of Northern California in August. During the spring-to-fall fire season, the smokejumper base tracks lightning storms and clusters of less-threatening fires to determine areas that could be in danger. A crew is then dispatched to those sites — in the most remote areas of the western wilderness.

That’s the smoke. Then there’s the jumper. “Some people take the bus [to work],” Jinkins says. “We just happen to take a parachute.” The only way to get to the work sites is by jumping from a Twin Otter airplane.

Though the career has been around for nearly eight decades, it’s unfamiliar to many. There are only nine smokejumper bases in the nation and fewer than

*Previous spread: Todd Jinkins ’96 waits for the go-ahead to parachute out of a Twin Otter plane as his team gears up for another season of firefighting.*

*Right: Each day begins with roll call, followed by an outline of the upcoming day’s business. The smokejumpers’ suits hang unzipped on speed racks at the back of the ready room, which allows the jumpers to step directly into them.*



400 smokejumpers total. The Boise and Fairbanks, Alaska, bases operate within the Bureau of Land Management (BLM) system. The other seven are run by the U.S. Forest Service.

The morning meeting comes to a close. It’s been months since the guys have actively jumped, so today’s goal is to knock the rust off. “Slow and safe is the theme,” the final presenter says. “And, like always, have a landing you can walk away from.” The men nod silently. “Ground crew’s launch time is oh-eight-thirty. Tentative suit-up for oh-nine-ten.”

Wooden benches scrape against cement, NPR quiets the chatter, and another day with the Great Basin Smokejumpers is under way.



## GEAR

The still, brisk air is shattered by the first flights taking off from Boise Airport. Across the commercial tarmac, the red, white, and blue Twin Otter waits for the first load of jumpers. The smoke-jumper building is located within the larger National Interagency Fire Center campus. Just beyond the security gate, the parking lot is saturated with pickup trucks and rusty Subarus. The walkway is lined with deer antlers. A suited-up mannequin stands in the entryway of the loft, outside of the small office that Jinkins shares with base manager Jim Raudenbush.

Jinkins meanders through the narrow hallway

## A NEW KIND OF CREW

There's a trend of former UW rowers becoming smokejumpers. Jinkins was inspired to head out west by former rower Kurt Borcharding '90, who had returned to campus to help coach the crew. Borcharding credits rower Lynn Tikalsky '91 with opening the connection and helping him get started. And crew alums Eric Kafka '93 and Matt Imes '94 headed out to Boise with Jinkins in the nineties. "[Smokejumping] takes a mental toughness," Borcharding says, "and I think a lot of the rowers have that."



*Once the crew receives a fire call, it has six minutes to suit up and taxi out in preparation for takeoff to the site of the blaze.*

*Below, the firefighters participate in a warmup exercise intended to simulate jumping out of a plane.*

that's been turned into a mini-museum on the history and practice of the profession. He points to the suit, explaining that just about everything a smokejumper needs is attached to it: a RAM-AIR parachute, a reserve chute, and a drogue chute to slow his descent; a 150-foot rappel rope in the right leg pocket; and a gear bag attached to the front that holds a hard hat, drinking water, some food, and a fire shelter. Once the smokejumpers hit the ground and receive their cargo, the gear bags transform into backpacks.

The real work doesn't begin until the jumpers have parachuted to the landing spot from 3,000 feet, set up base camp, and hiked to the work site. An average shift lasts 16 to 18 hours. "We'll get up at six, work all day, and usually try to be back to camp by 10," Jinkins explains. "Get some sleep and do it all over again." When the job is done, be it two days or two weeks, they haul everything to a helicopter landing spot or hike to the closest road — sometimes 20 miles away. Packed up, all of the gear weighs around 110 pounds. "It's not light, so it's not fun," he says, "but it's part of the job."

## SUIT-UP

Todd Jinkins is not a slacker. But, one period during his senior year at Iowa-Grant High School



in southern Wisconsin, he skipped class to see a Marine Corps recruiter in the guidance counselor's office. Maybe it was to learn about the marines, or perhaps it was because the recruiter was a buddy of his. "I went home that night and told my parents I was going to join the Marine Corps. They said, 'No, you're not!'" Jinkins, like his four siblings before him, was supposed to attend UW-Madison. But at that point, he wasn't one for supposed-tos. Instead, he waited until he turned 18 and left for boot camp.

That's how he landed in the middle of the first Gulf War. He remembers hitting the beach in the amphibious assault of Kuwait. He remembers taking 5,000 POWs who had endured 45 days of bombings. He remembers watching the U.S. Air Force liberate Kuwait City while the marines held down the outskirts. But he's quick to say that his experience doesn't compare to that of current military men and women. "There wasn't nearly as much fighting; there wasn't nearly as much death," he says. "I'm glad I had the experience, but I couldn't do it over again."

After four years in the marines, Jinkins put in four years at the UW. Adjusting to college life was hard, especially as a 22-year-old freshman, but not impossible. "I was so much older and had done so many more things than all of these other people," he says. And after serving in the military, he was used to regimen. Luckily, he found a way to get it on campus. Dan Gehn '89, then a freshman rowing coach, spotted six-foot-three Jinkins in line enrolling for fall classes. Jinkins had never rowed before, nor had he any ambition to do so. He even forgot about the tryouts until Gehn called to remind him.

It was while rowing for the UW, at a time when the rowing team wore varsity hockey hand-me-downs with *Crew* scribbled in Magic Marker, that Jinkins learned about wildland firefighting. Kurt Borchherding '90 had come back to help coach the freshman team after working in the Sawtooth National Forest on a hotshot crew — a type of wildland firefighting that involves busing to work sites rather than parachuting. "My job kind of piqued Todd's interest," Borchherding says.

After they both achieved smokejumper status, the two worked together in Boise until Borchherding went to the Alaska Smokejumpers in 2008. "It takes a special breed to make it through the BLM system," Borchherding says. "You have to be a little bit crazy to want to hang out in the woods with a wildfire burning right next to you. You're working 18 hours a day, and you're basically a glorified ditch-digger. If you can put up with that, there are so many perks to the job."

## LAUNCH

"Seth, tuck me in!" One of the ground-crew guys has decided to nap in a corner of the orange canopy that marks the jumpers' landing spot. Seth gingerly places a grapefruit-sized rock on top of him. "There you go, buddy." Someone asks if anyone is going to wake him,

*The rookies train outside of Boise in an area they call "the units," developing skills such as rappelling and climbing before progressing to training jumps.*

*Below: Because a reserve parachute is a last resort, packing one requires a Federal Aviation Administration license. "It's almost like a pilot's license, but for parachuting," Jinkins says.*



Jinkins says that Mickies Dairy Bar on Monroe Street was the favorite hangout spot for the crew after practice. "I take my wife to Mickies when we go back [to Madison]," he says. "It's good to see that some of those places don't change."

## SMOKEJUMPER DICTIONARY

**Loft:** the smokejumper building on the National Interagency Fire Center campus; in the winter, the smokejumpers turn the loft into a sewing factory to handmake all of their gear bags, suits, and harnesses.

**Hotshot crew:** a handcrew of 20 firefighters trained in suppression tactics; they drive as close to the sites as they can to begin work.

**Stick:** a group of jumpers who are in the air at the same time; a two-person stick means that two jumpers are kicked out of the plane.

**Burbs:** a group of Chevrolet Suburbans.

**Six-packs:** Ford crew cab 4x4 pickup trucks.



but he insists nobody will land that close.

"Dude, Adell's gonna nail it. He's gonna be right here," one points to the rock.

"I got Mel as my dark horse," another quips.

"Mel's gonna be too far downwind!" shouts the canopy. Somebody has already bet on "Skinny Jinks" to hit the target. The young guy taking bets asks David Zuares, the field-operations supervisor, if he wants in. Zuares walks away, his hands shivering as he wipes his nose with a handkerchief. "This load that's coming, that's all the old salts. They're very good at what they do," he says. So is he, with more than 200 fire jumps under his belt. "They'll all be stacked up right here," he nods toward the canopy.

*"We like to have a little bit of wind," Jinks says. "When there's not a lot of wind, you have a lot of forward penetration with the airfoil ... It's more difficult."*

At promptly *oh-eight-thirty*, Zuares leads the caravan of three *burbs* and two *six-packs* to a field in Mountain Home, Idaho, a small air force town 50 miles south of Boise. The rigs park off of a two-lane road. Cattle graze freely on the other side as a tumbleweed skids past a hollow animal skull. The guys try to recall if anyone has landed on that side of the road, at a spot some 50 yards away. If anyone has, they can't remember.

"This is the easy jump spot," Zuares starts at normal volume but ends in a shout, "because it's frequently windy here!" He makes no claims to be an aeronautical engineer or physicist, but he explains, in depth, the difference between *airspeed* and

*groundspeed.* A windier day on the ground makes for a softer landing.

The radio lying next to a prairie dog hole crackles: *Jump spot, jump four-nine.*

*Jump four-nine, this is jump spot, go ahead.*

The plane is on its way. The ground crew responds to report consistent winds out of the west at eight to ten miles per hour. The mission is simple: land on the canopy (no longer occupied). The execution requires teamwork among the eight jumpers, one spotter, and the pilot aboard the Twin Otter. A hum breaks through the sky as the plane comes into view. Pilot Diego Calderoni orbits the canopy several times on a low pass. If this were an actual fire jump, the spotter would be looking for fences, large rocks, and other ground hazards. On the third pass, the plane climbs to 1,500 feet. The spotter, dangling out where the door should be, kicks out two streamers. The 15-foot strands of red and yellow are weighted to show the jumpers exactly which way and how fast the winds are blowing. “I would suspect they’ll land about 400 yards [northwest] of the canopy,” Zuares guesses. He’s right.

A second set of streamers falls out into the wind line, aiming for the canopy. This gives the spotter an indication for where the exit point will be, Zuares explains. The plane ascends to 3,000 feet, and the spotter has a few moments to mentally calculate the new exit point at the new altitude. Once he’s done that, the first jumpers exit the plane.

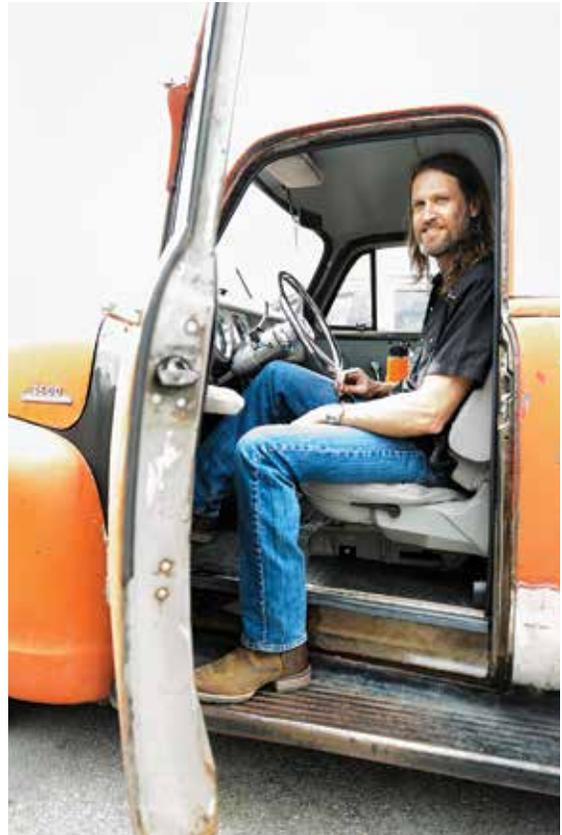
## CHANGE COURSE

“Who’s the mayor of Madison?” Jinkins wants to know. He’s the kind of guy who wants to know a lot of things. He wants to know what people across the world thought about the 2016 presidential race. “It is a little bit of a sad commentary on Americans. This is such a spectacle, in a bad way,” he muses. He thinks that recruiting female smokejumpers is akin to increasing women’s enrollment in STEM majors, and will require more resources and backing. He wonders how Netflix’s *Making a Murderer* relates to his own jury experience. Jinkins laughs that his political and behavioral science degrees haven’t done much for his career, but he doesn’t think that’s what UW–Madison is about. “It teaches you *how* to think. It teaches you to apply reason to why you’re doing something,” he says. “Use some cognitive thought and scientific background to make a decision. That’s what you get out of a liberal arts degree.”

In another life, Jinkins might have been an engineer. He builds things. In the off-season, he sets up a drafting table at his favorite downtown café, the Flying M. There, he designed and built the three houses that he and his wife, Tobey, have lived in. He also puts cars and motorcycles together, the latter of which he takes on a long ride each fall. He and some smokejumper buddies ride the back roads from Boise to Canada and back in memory of a fallen

*Of Jinkins’s many hobbies, a practical one is rebuilding old cars and motorcycles.*

Jinkins grew up in Montfort, Wisconsin, population 709. His high school combined five neighboring towns, including Cobb — hometown of Badger men’s basketball head coach Greg Gard. “His mom was our high school secretary,” says Jinkins.



smokejumper and close friend.

To Jinkins, knowledge is best when shared. The U.S. Forest Service has sent him to Oman and Mexico to teach courses about incident command. He hopes to get to Mongolia and Africa next. Tobey has suggested that, when he walks away from smokejumping, they could join the Peace Corps together. But for now, he’ll commute by parachute. “Smokejumping has been a pretty amazing career. It’s fun to think that I can be having breakfast in southern Nevada and dinner in Fairbanks,” he says. “The earth is a pretty amazing place. That’s what keeps people coming back for the job.”

## LANDING

The winds on the ground have picked up. The crew radios the pilot, who’s already climbing to 3,000 feet. No response.

The first refresher day went according to plan. As Zuares suspected, the first load of jumpers was stacked up around the canopy. Raudenbush landed right on target. Jinkins insisted that *he* would have, if “Bush” hadn’t been in the way. Today, things are not going according to plan.

The guys had hoped to jump some rougher terrain outside of Emmett, Idaho, 45 minutes north of Boise, but the week’s rainfall put them back in Mountain Home. During initial radio contact, winds were at five miles per hour. The ground crew is now bracing against relentless gusts.



*Jump four–nine, this is jump spot calling blind. Winds on the ground increased to 15–17.*

“Hope they get that,” the caller says to no one in particular. Yesterday’s winds were perfect, but there’s a quick cutoff between ideal and too high. The BLM smokejumpers cover the intermountain desert area of the Great Basin and Alaska, where high winds are common. That’s why they use the RAM-AIR parachute; it can sustain higher winds than the standard round chutes used by Forest Service jumpers.

“It can be a trick not to get dragged and injured,” Jinkins says. When it’s windy, the canopies stay inflated and make it harder to cut away. He remembers a jumper who used a round chute for a beach landing on the windy Bering Sea. He broke both of his arms on impact, making it impossible to pull the cut-aways to deflate the chute. “Luckily there was some driftwood on the beach, and his canopy got caught up on [it] and stopped him before it dragged him into the ocean,” Jinkins chuckles. He and the guys are used to harrowing experiences. “I wouldn’t say it’s *super* dangerous,” he shrugs. Last summer, a 60-foot-tall tree fell over and landed square on Jinkins’s back. He was sent on his sixth life-flight medevac with just a few broken ribs.

Smokejumpers have engineered their suits to protect against injuries. The material is a Kevlar/Nomex blend: resistant to fire and puncture. “We have had situations in the past where people have

*Awareness doesn’t stop once the jumpers are on the ground. After they land and begin to pack their chutes, they must stay conscious of the jumpers who are still on their way down, as well as the box of paracargo (see page 31).*

kind of been ... skewered,” Jinkins says. Phil Lind, a Prairie du Chien native, is one such kebab. In 2005, a windless landing brought him in too fast, and he skidded into a tree branch. “It went almost all the way through him.” Jinkins explains with gestures, “He pushed himself off, but a lot of his intestines started coming out.” He smiles. “Poor Phil.”

The plane still hasn’t responded to the blind call. It’s clear as soon as the first *stick* (or group of jumpers) hits the sky that they didn’t get the message. The closest guy lands about 50 yards from the target. “What the hell are they doin’?” someone laughs. “Jinks!”

Jinkins’s blue and yellow chute passes the target and continues in the wind line. He clears the rigs parked at the edge of the road and keeps going. Eventually, he lands closer to the grazing cattle than the rest of his company. He’s too far away to hear the heckling as he starts to de-suit, pack up, and trek over to the rigs. Today’s post-jump evaluator, a young guy in a camo hat, meets Jinkins by the 4x4s. They both shrug and start laughing. “Skinny Jinks” wastes no time giving the other guys crap for missing the target, too. He might not have landed where he expected to, but like always, it was a landing he could walk away from. ●

*Chelsea Schlecht ’13 is a writer for On Wisconsin and is no longer certain she wants to try skydiving.*



Due to the nature of the terrain, BLM smokejumpers use RAM-AIR chutes, which are more equipped to handle heavy winds.

The reserve parachute can only be packed up by a certified master rigger.

The gear bag contains a jumper's hard hat, water, food, and other personal items.

In total, the gear weighs 110 pounds.

Jumpers use ski and snowboard helmets with a face mask attached.

The suit is a Kevlar/Nomex blend, making it resistant to fire and puncture damage.

Motocross-style chest protectors keep the jumpers' vital organs safe from puncture.

Smokejumpers in Alaska engineered new protection in the jump pants by attaching hockey girdles.

Pack-up bags can be used to store other loose items upon landing. Jumpers must take everything that comes with them when they leave.

Motocross gear such as shin guards and elbow guards protect jumpers from accidental rock landings.

The right leg pocket houses a 150-foot rappel rope, in case the jumper lands in a tree.

*Anything that's not transported in jumpers' suits goes in a paracargo box, a container attached to a parachute that is kicked out of the plane during a low-level pass — around 300 to 500 feet. Each box contains: two sleeping bags; two Pulaskis (a hand tool with both an axe and an adze for digging fire lines); and a two-day supply of food for two people. If the jumpers are on the ground for longer than two days, the plane returns to drop more cargo.*

Once a job is wrapped up, the smokejumpers hike to the closest road — which may be 20 miles away.

# Grain of Truth

*A UW wood scientist became the star witness in a trial that captivated the nation.*

**BY ADAM SCHRAGER**



COURTESY NEW JERSEY STATE POLICE MUSEUM

Arthur Koehler MS'28 first learned of the kidnapping of aviator Charles Lindbergh x'24's toddler son while reading the newspaper at the kitchen table in his west Madison home in March 1932. He looked at his own son, George, just 48 days older than Charles Jr., and shuddered.

What happened next put Koehler at the center of what journalist H. L. Mencken called the "greatest story since the Resurrection."

Koehler, a UW–Madison lecturer and chief wood technologist at the U.S. Forest Products Laboratory, envisioned a "daring challenge" when he learned of the ransom note, chisel, and homemade ladder left behind at Lindbergh's New Jersey estate. He wrote Lindbergh a letter, explaining that he might be able to trace the source of the ladder's components and find the perpetrator.

Decades before the O. J. Simpson trial, the kidnapping and subsequent death of the Lindbergh baby gripped the attention of the American public. Koehler, who did not naturally seek the limelight, eventually helped solve the case and served as the final prosecution witness.

"I'm no Sherlock Holmes, but I have specialized in the study of wood," Koehler told the *Saturday Evening Post*. "Just as a doctor who devotes himself to stomachs or tonsils ... so I, a forester, have done with wood."

The U.S. Forest Products Laboratory was established near campus in 1909 after the UW outbid a number of East Coast schools for the federal contract. The university agreed to spend \$50,000 to house, heat, power, and light what would become the world's preeminent research facility dedicated to the study of wood.

It was at this wood mecca that Koehler arrived in January 1914, returning to the state where he grew up and where his father, Louis, tended bees and berries on a farm in Mishicot, just north of Manitowoc. Koehler's childhood was filled with walks in the woods and countless hours in his father's carpentry shop, where saws and hammers weren't allowed on Sundays out of respect for some of the family's religious neighbors. Koehler enjoyed quiet time in nature more than conversations.

He completed undergraduate work at Lawrence University and the University of Michigan and joined the Forest Service in Washington, DC, before coming to Madison to work as a xylotomist. Xylotomists often, as *The Washington Post* reported in 1910, needed to correct a public that frequently confused their job with those who played the xylophone. Koehler's charge was to identify and describe wood species sent by clients ranging from U.S. Navy shipbuilders to the Chicago Cubs, who needed help when a lucky bat had broken.

His career blossomed at the lab, and he was

promoted to run its new wood technology division. It's not hyperbole to say he literally wrote the book on wood: Koehler's *The Properties and Uses of Wood* was published in 1924, selling copies worldwide in a number of languages. He was the foremost U.S. expert on identifying wood species when he earned his UW graduate degree. At commencement, he shared the Camp Randall stage with Charles Lindbergh — arguably the most famous dropout in school history — who was there to receive an honorary degree.

Lindbergh first arrived on campus in 1920 aboard his Excelsior motorcycle, late for registration and his first mathematics class. He excelled as a member of the school's rifle and pistol shooting teams and at driving his motorcycle at top speed down the steepest hills he could find in Madison. Chemistry, calculus, and English — not so much.

He left Madison on February 2, 1922, on the verge of flunking out, to pursue a career in aviation. That led to the army's flight-training school, a route delivering the mail, and the desire to accomplish something so dangerous that many others had died in its pursuit.

In May 1927, Lindbergh became the first pilot to ever fly solo across the Atlantic. As he boarded the *Spirit of St. Louis* in New York for the two-day flight, a reporter asked him if the five sandwiches he was carrying would be enough for the 33-hour journey. He said wryly, "If I get to Paris, I won't need any more. And if I don't get to Paris, I won't need any more, either."

When he succeeded, bedlam ensued worldwide. In the two weeks before he returned home, Lindbergh received 3.5 million letters, 100,000 telegrams, and 14,000 parcels. He launched a barnstorming tour supporting commercial aviation, flying to 92 cities in 49 states, and giving 147 speeches. He turned down \$5 million worth of movie roles, product endorsements, and public appearances.

"It's very difficult, if not impossible, for people

*Newspapers dubbed Arthur Koehler "Sherlock Holmes" for his forensic work tracing the homemade wooden ladder (shown disassembled below) to the suspect in the kidnapping of aviator Charles Lindbergh's toddler son.*



COURTESY USDA FOREST SERVICE, FOREST PRODUCTS LABORATORY, MADISON

today to fully understand the phenomenon of Lindbergh,” says Mark Falzini, archivist at the New Jersey State Police Museum, which contains hundreds of thousands of Lindbergh-related documents. “He was both a hero and a celebrity. Everybody on the planet knew who he was, and the vast majority of them worshipped the ground he walked on.”

His first child, Charles Lindbergh Jr. — dubbed “Little Charlie” or “The Eaglet” by newspapers — was born in 1930 and immediately became a seven-and-a-half-pound luminary. Any new photograph or change in diet was front-page news. Roughly two and a half months shy of his second birthday, the world felt a collective gut punch when its most famous toddler was kidnapped.

“It was a personal attack on each and every one of us,” Falzini says. “It seemed as though everyone felt violated and extremely vulnerable. After all, if it could happen to Lindbergh, it could happen to me.”

Payment of a \$50,000 ransom was followed by the devastating discovery of the boy’s body. After exhausting every investigative lead from the ransom note and chisel, Lindbergh and the New Jersey State

Arthur Koehler matched the 16th rail of the ladder used in the kidnapping with a sawed-off floorboard found in the attic of the suspect’s apartment.

Koehler’s testimony helped convict carpenter Bruno Richard Hauptmann, who was executed on April 3, 1936, for the murder of Charles Lindbergh Jr.

## FORENSIC BOTANY

Arthur Koehler’s legacy at the UW continues with the students enrolled in Botany 575: Forensic Botany.

Whether it’s examining a piece of a plane that crashed outside of Chicago, a sample from a Ghanaian forest, or one of the 20,000 wood species at Madison’s Forest Products Laboratory, adjunct assistant professor Alex Wiedenhoefl gives students the opportunity to apply the concepts learned in his course.

And Wiedenhoefl, a research botanist and team leader for the Center for Wood Anatomy Research, wants his students to understand that esoteric details can mean “the difference between someone’s freedom and incarceration.

“My slightly more realistic, starry-eyed wish is for each student to see a connection between their botanical studies and the real world,” he says. In keeping with that idea, the class changes as new casework and science come across Wiedenhoefl’s desk.

When he considers the idea of Koehler’s reaction to what and how he’s teaching, he laughs.

“I have a perception that scientists of his era had a tacit belief in the absolute veracity of their science — such a position would be strongly incompatible with how I try to teach this topic,” he says. “I could see the possibility for some good-natured academic conflict there, which would be good fun.”

Police turned to the FBI for help analyzing the ladder. The FBI turned to the Forest Service, and, months after his letter to Lindbergh went unanswered, the Forest Service called on Koehler.

Almost a year to the day after the little boy was kidnapped, Koehler arrived on a train in Trenton, New Jersey, for his first look at the wooden witness. “If it had been the steps to a gallows, it could not have repelled or fascinated me more,” he later said.

It was a telescopic ladder, a hybrid between a stepladder hinged in the middle and a full-extension ladder, meaning it was either extendable or compressible. For Koehler’s purposes, the most telling detail was that it was homemade.

Every rung and every rail was numbered, measured, calipered for width, identified by species, and scrutinized for every mark, man- or machine-made. To determine the age of the wood, Koehler employed cutting-edge tree-ring science — known as dendrochronology — that had yet to be popularized or taught in the nation’s schools.

Today, we’ve become so used to seeing fictional forensic scientists solve crimes in the final 15 minutes of a television episode that it’s difficult to do Koehler’s subsequent 18-month investigation justice. He tracked the minute markings (to the thousandths of an inch) on the North Carolina pinewood used to make the rails in the ladder’s bottom section to a lumber mill in South Carolina. He continued following the trail to a New York retail lumber yard, only to hit a dead end when investigators learned that the business no longer allowed customers to pay with credit due to the Depression.

When Bruno Richard Hauptmann was arrested in the fall of 1934 after buying gas with one of the bills used to pay the ransom, Koehler once again joined the investigation. His expertise in evaluating the most recognizable piece of evidence in the single most scrutinized trial up to that time would be vital to the prosecution.

Using skills sharpened at the Forest Products Laboratory and shared with UW students for nearly two decades, Koehler conclusively linked Hauptmann to the crime scene. He testified that a sawed-off floorboard from Hauptmann’s attic and the wood used in the 16th rail, the upper left-hand section of the ladder, “were at one time, one piece,” which meant part of the ladder had come from inside the accused kidnapper’s own home.

The legendary journalist Damon Runyon wrote, “The tale of scientific wood and tool detection told today by a bald-headed, middle-aged man from the woods of Wisconsin ... puts the greatest fictional exploits of Sherlock Holmes in the shade.”

Hauptmann’s own lawyer told reporters afterward that he’d “never heard more damaging testimony or seen a more enthralling demonstration than that presented in the courtroom today by Arthur Koehler.”

Koehler's testimony made headlines around the country. To an early 20th-century world used to handwriting, fingerprint, and ballistic experts, forensic wood anatomy was now a scientific equal. His ability to communicate the science to the courtroom and the public at large "is a huge part of what makes the difference between broad awareness and acceptance of a body of work and that work lingering in relative obscurity," says Alex Wiedenhoeft '97, MS'01, PhD'08, a UW adjunct assistant professor of botany who describes himself as the academic descendant of Koehler at the Forest Products Laboratory.

"Koehler had the right *chemistry* for the time," he says.

Even with technological advances and no shortage of conspiracy theories surrounding the Hauptmann case, Koehler's basic science remains unquestioned by experts today.

"His work and his findings could not be challenged at the time," says Luke Haag, a criminal forensic scientist in Arizona who used to run the Phoenix Crime Laboratory, "and would only be praised and supported today by anyone trained and experienced in the relevant specialties."

However, besides elevating forensic botany and wood identification to an accepted scientific practice, Koehler's legacy also highlights the flaws many scientists see in criminal justice today. His work in the Lindbergh kidnapping case is almost the antithesis

*Police — shown below reconstructing details of the child's disappearance from Lindbergh's New Jersey estate — exhausted leads from a ransom note and a chisel found at the crime scene before consulting Koehler.*

of the modern forensic approach, says Skip Palenik, who runs Microtrace, LLC, and has consulted on cases ranging from the Unabomber to the Green River serial killer.

"Koehler's effort in this case exemplifies the type of scientific work product that forensic science should be providing to the legal system," Palenik says. "Many individuals in the criminal justice system would rather try to solve a case by consulting a psychic, a profiler, or taking a swab for DNA rather than submit microscopic trace evidence for analysis by someone who actually knows how to analyze and draw rigorously based scientific facts from it."

At the UW, Koehler geared his class mostly toward those interested in architecture, carpentry, engineering, and manufacturing. He prepared a slide show chronicling his Lindbergh case investigation and inevitably shared the message he voiced nationwide on the radio just days after Hauptmann's guilty verdict.

"In all of the years of my work, I have been consumed with the absolute reliability of the testimony of trees," he said. "They carry in themselves the record of their history. They show with absolute fidelity the progress of the years, storms, drought, floods, injuries, and any human touch.

"A tree never lies." ●

*Adam Schrager is a journalist at WISC-TV in Madison and the author of The Sixteenth Rail: The Evidence, the Scientist, and the Lindbergh Kidnapping.*



AP PHOTO

# A Taste of Freedom

*A UW professor unearths a missing chapter in the history of civil rights: black farmers who used agriculture as a path to resistance.*

**MEGHAN LEPISTO '03, MS'04**  
**PHOTOS BY BRYCE RICHTER**





**T**heir salvation would be pickles. That was the decision of a group of farmers in Sumter County, Alabama, who were struggling financially. But when they tried to purchase cucumber seeds from a local merchant, the seller refused.

The growers eventually obtained seeds, but at harvest, the area's two pickle companies refused to buy produce from them: they were African Americans.

"The local companies did not want them as competition," explains assistant professor Monica White, "because they had previously been able to exploit them for their labor as sharecroppers."

White became UW-Madison's first professor of environmental justice in 2012, a joint appointment with the Department of Community and Environmental Sociology and the Nelson Institute for Environmental Studies. She uncovered this story while studying how Southern black farmers organized against oppression in the late 1960s and early '70s. Her work is bringing focus to a missing and essential piece of the civil rights narrative: the role of agriculture.

Employment for tenant farmers and sharecroppers — who rented land and homes in exchange for a portion of their harvest — dropped sharply during this period due to increased mechanization, a federal conservation initiative that paid landowners to take farmland out of production, and a decline in the cotton industry.

At the same time, despite passage of the Voting Rights Act of 1965, voter registration and education efforts by African Americans drew retaliation from white politicians, landowners, law enforcement, and business owners. Those who attempted to vote were fired from their jobs and evicted from their farmland and homes. Some were cut off from resources they needed to survive.

Starvation became a political weapon.

## The Fight to Grow Food

In 1967, when the Office of Economic Opportunity (a federal agency administering antipoverty efforts) established a medical center in Mound Bayou, Mississippi, food deprivation and malnutrition were the most commonly diagnosed conditions. The center's pharmacy stocked as much food as it did medicine, because sharecroppers could only purchase food and farm equipment from merchants sanctioned by their employers.

"The local merchants stopped selling seeds, fertilizer, milk. ... They stopped providing those resources that people needed in order to survive," White says. "People were forced to try to find some other way."

As millions of African Americans moved north in

the late 1960s in search of better lives and opportunities — part of the Great Migration — others remained on Southern soil, found strength in numbers, and formed agricultural cooperatives.

For these holdouts, the land became a way to resist repressive conditions by fighting for the right to grow food. The cooperatives focused on community development and offered services ranging from food, housing, and employment to education, child-care, and health care, helping black farmers and rural communities survive economically.

By pooling resources and buying power, these farmers used the cooperatives to participate in the food system as producers. Bulk farm-supply purchasing and loan programs helped to break their dependence on hostile local suppliers. And market programs that consolidated produce and eliminated middlemen allowed growers to negotiate better prices for their goods. Sharing resources — from tillers to tractors to fence-making supplies — also helped farmers reduce costs.

For the Sumter County growers who struggled to buy seeds and sell their cucumbers at rates that weren't exploitative, joining the Southwest Alabama Farmers' Cooperative Association paved the way for selling their crops to the area's two pickle companies at a fair price.

Thousands of families across 10 Alabama counties belonged to the cooperative, but its success created enemies. Representatives of the pickle companies, along with state elected officials, chartered a plane to Washington, DC, to demand that the Office of Economic Opportunity stop funding the cooperative. Their argument: paying black farmers fairly was causing too much competition. The government denied their plea.

## Rust Belt Remedies

For White, this path into the past began in today's urban gardens. Before she moved to Madison, she lived in Detroit, where she began studying the creative approaches communities of color and grassroots organizations have adopted in response to similar issues of hunger and food inaccessibility.

"Today a lot of folks in Detroit, Milwaukee, Chicago, and all points in between are identifying ways to increase access to healthy food, but also to use food as a mechanism of community building and transformation," she says.

As U.S. auto production lagged in the early 2000s and jobs vanished from the Motor City, White watched her hometown become financially devastated. With 40 percent of Detroit's population living below the poverty line and many lacking access to fresh food, residents were left to rebuild and reimagine not only their livelihoods, but also their communities.

Urban agriculture surged. Abandoned lots became lush sites of food production and sprouted healthy alternatives to convenience-store fare. Urban farms

*Previous spread: On a recent trip to Mississippi, UW assistant professor Monica White visited Ben Burkett, cofounder of a 40-year-old cooperative for African American farmers.*

provided not only nutrition, but also space for recreation, public art, cooking demonstrations, health screenings, intergenerational relationships, and environmental tourism.

But as this movement for food security gained momentum and media coverage, White saw something absent from the conversation: the black and brown faces of people growing food in the city. She wanted to hear the stories of people who looked like her dad, grandma, or sister.

She set out to unearth these narratives, gathering and sharing the deep-rooted, personal reasons black Detroiters decided to grow their own food. "Some people grow tomatoes because there's nothing like a homegrown tomato; other people grow tomatoes because they feel like that's a taste of freedom," White says.

One day, as White listened to local food activists discuss organizing a community food cooperative, she realized there must have been other times in the past when African Americans had embraced agriculture and community-based food systems for self-sufficiency and empowerment — and resistance.

## Agency through Agriculture

For four years, White has traveled the South, scouring libraries and archives for historical documents and speeches, and querying farmers and civil rights activists about their experiences with the black cooperative movement.

"It's important as researchers that we try to immerse ourselves in the story," says White. "If you're going to do archival research, you have to feel what it was like and walk in the footsteps."

Her work builds on research and relationships developed with Southern farmers by Jess Gilbert, a UW professor emeritus of community and environmental sociology who has documented African American land loss.

From large organizations such as the Colored Farmers Alliance in the late 1880s, which represented 1.2 million members across every Southern state, to local co-ops, such as the North Bolivar County Farm Cooperative, a regional movement in Mississippi to lift unemployed farmers from poverty, these cooperatives helped farmers share skills, strategies, and supplies; purchase land and maintain ownership; shift from cash crops to food crops; and gain economic autonomy. Many agricultural collectives continue today, providing resources and technical assistance and advocating for public policies that benefit member farmers and rural communities.

"Thinking about what food does for a person's or a community's ability to make decisions for themselves is profound to me," White says. "As much as we talk about agriculture as a strategy of oppression — and there are lots of examples historically where agriculture has been oppressive — there are also these stories of agriculture as liberatory."



White fills in that missing narrative with her forthcoming book, *Freedom Farmers: Agricultural Resistance and the Black Freedom Movement*, which shares the historical contributions of these cooperatives and of African American agriculturalists across more than four centuries.

## A Pig and a Garden

Among the most inspiring visionaries White uncovered in her historical review was civil rights activist Fannie Lou Hamer.

Born in 1917 as the 20th child of sharecroppers, Hamer worked on a Mississippi plantation from the age of six. During a surgery in her early adulthood, she was sterilized without her consent. After leading a group of African Americans to register to vote in 1962, she was fired and evicted.

“When they kicked me off the plantation, they set me free,” Hamer said later. “Now I can work for my people.”

Hamer was known primarily for her efforts to advance African American representation and access to electoral politics. But she was also concerned about the struggle of evicted farm workers and food access being used as an instrument of oppression. In

*White has traveled the South for four years to conduct her research, finding historical links between agricultural cooperatives used by black farmers there and urban gardening in her native Detroit.*

1967, she launched Freedom Farms Cooperative in Sunflower County, Mississippi — a bold experiment to link land, food, and freedom.

Offering low-cost access to fertile soil and clean, safe housing, Freedom Farms provided an antipoverty strategy for displaced, unemployed farmworkers — an opportunity to stay in the South and live off the land.

One of Hamer’s first efforts was to establish a “pig bank” — a 1960s equivalent of a microlending operation. Beginning with a herd of 50 pigs, the bank distributed pregnant sows to Freedom Farms families. When a pig delivered her litter, two piglets were returned to the bank. And thus the cycle continued.

Gardens, catfish ponds, and cattle herds, all collectively maintained, also nourished a healthy community. And cash crops such as cotton, wheat, and soybeans helped pay the mortgage on the land. Hamer’s frequent refrain was, “As long as I have a pig and a garden, no one can tell me what to do.”

More than an agricultural venture, Freedom Farms also provided jobs, social services, low-income housing, educational programs, occupational retraining, a business incubator, a commercial kitchen, and sewing cooperatives. At its height, the venture



During the 1970s, Hamer delivered two speeches on the UW campus about the challenges facing African Americans, the first in Memorial Union's Great Hall in 1971, where she proclaimed, "Nobody at the University of Wisconsin, and no other place in this country, is free until I'm free in the South."

In the end, a lack of resources led to Freedom Farms' demise, and operations ceased in 1975. But what the organization accomplished in a racially hostile environment shows the power of community resilience and collective agency, White says.

The self-sufficient nature of Freedom Farms and other cooperatives, combined with members' land ownership, freed them from the exploitative economic relationship between landowner and farmworker. It also provided a foundation for political power. Members participated in political-education campaigns, informing residents of their right to vote. They became more involved in local and regional politics, encouraged farmworkers to run for office, and pushed back against oppressive practices.

Black farmers and landowners "put their lives on the line" for activists in the South, White says. They provided social networks for organizers to tap into, along with housing, feeding, and freeing Freedom Summer volunteers who traveled to Mississippi to assist with voter registration and education.

"Once folks got arrested, they didn't want your

*"Growing food is hard work, and we don't often appreciate the people who provide our food," says White, above with farmers Daniel Teague (middle) and Jesse Fleming (right) on Fleming's cattle farm near Sallis, Mississippi.*

word. They wanted you to put your land up to get activists out of jail, and black farmers were the ones who did that," White says. "Freedom Summer could not have been successful had there not been folks there to welcome them, organize, and help."

As underserved, food-insecure communities today struggle with some of the same inequities surrounding poverty and hunger that 1960s farmworkers faced, White believes Freedom Farms and other agricultural cooperatives provide an important historical model for postindustrial American cities. "If we think about a place like Detroit, the automobile industry changed, jobs left, resources left, services left, and people asked, 'So now what do we do?'"

As the contemporary urban-agriculture movement brings food security and resilience to a growing number of communities, White sees the same drive for self-determination and empowerment through the land that gave rise to Southern black agricultural cooperatives.

"We see in these cooperatives a way to engage agriculture as a cornerstone for building community that was important then, and it's important now," she says. ●

*Meghan Lepisto '03, MS'04 is communications manager for UW-Madison's Nelson Institute for Environmental Studies.*



## A MILE IN THEIR SHOES

“The scholarship that I produce is from the perspective of those who live it,” says UW assistant professor Monica White.

On a recent trip to Petal, Mississippi, she watched and listened as Ben Burkett tidied up the processing plant used by members of the Indian Springs Farmers’ Association, a cooperative he helped found 40 years ago and still leads today. A fourth-generation farmer, Burkett grows nearly two dozen varieties of vegetables on 300 acres of land that has been in his family since the 1800s.

While Burkett examines crates of peas, beans, and other produce to be sold at a farmers’ market the next morning (a 100-mile drive that he’ll begin at 4 a.m.), White asks about varieties she doesn’t recognize, about the soil and the season, and about market prices.

She hops into Burkett’s silver pickup truck — the bumper lined with stickers declaring, “Support family farms,” “Eat organic,” and “Things go better with kale” — to head to a patch of okra (below left) that needs picking. She is a sponge, soaking it all up.

An ethnographer by trade, White studies and shares the stories of people, their lives, and the landscape. Her goal: to honor farmers by sharing their work and their words.

“I feel like I’m holding up a mirror and saying, look at how incredible you are,” White says.

Later that day, near Sallis, White watches her step as she walks the cattle pastures of farmer Jesse Fleming. With Black Angus, Black Baldy (top left), and brown Limousin cows curiously observing just a few feet away, White peppers Fleming with queries. How many cattle does he have? (Sixty.) Is that big cow pregnant? (Yes.) Are there any pests of concern? (Horn flies are a persistent bother.)

Leaving the field at the end of her excursions is always a challenge — not only because she is moved by the resolve of those she meets, but because she feels closer to her own family’s history.

She recalls the Alice Walker line, “In search of my mother’s garden, I found my own,” to describe how studying modern urban agriculture connected her to the long history of African American farmers and, along the way, helped her find new links to her own family’s story.

Fleeing poor race relations in the 1960s, her late grandmother moved White’s father and family from Mobile, Alabama, to Detroit. Between White’s childhood home in the city and a cabin in northern Michigan that provided a rural respite, growing food and sharing it with the community was always important to her father, as was a love for the land and what it could produce.

Returning to her late father’s Southern roots reminds her of his influence on her career. “Everything I am is because of my dad,” she says. “In addition to

this being a story that’s cultural, it’s also personal.”

# Potato, Interrupted

*There's more to genetically modified foods than what you hear in political debate. Just ask Jiming Jiang and his hardy — if unloved — potato.*



MARKANDREWPHOTOGRAPHY/ISTOCK

**BY NICOLE MILLER MS'06**

**Americans love their potatoes.** We enjoy them baked and mashed, and as chips and fries, to the tune of 140 pounds per person per year. Potatoes anchor our holiday meals, our summer picnics, and our fast food indulgences. They are savory perfection.

In most ways, at least.

The potato has an Achilles' heel. Most of our commercial varieties need help standing up to pests and pathogens, including late blight, the fungal disease that caused Ireland's potato famine in the mid-1800s.

"Every variety in this country, almost every one of them is susceptible [to late blight]," explains Jiming Jiang, a UW-Madison professor of horticulture. This includes Atlantic, Red Norland, Yukon Gold, and Russet Burbank of McDonald's french fry fame.

To protect their crops from late blight, U.S. farmers spray around \$77 million worth of fungicides each year. Even so, the disease takes a toll, causing some \$210 million worth of crop losses annually. What if there was a better way? Globally, hardier potatoes

could prevent thousands of tons of chemicals from being applied to the earth each year.

As it turns out, a hardier potato does exist. Back in the mid-2000s, Jiang and colleagues developed a series of potatoes that could survive late blight without sprays. But the improved plants never made it to the commercial market — they were made using genetic engineering (GE), and at that point, no GE vegetables had yet been approved. And public opinion wasn't favorable. It still isn't.

"You're powerless, and you accept it," says Jiang.

**Genetically engineered foods have been part of the American diet** for 20 years now, and there is strong scientific consensus that they are safe to eat. This was confirmed in a recent report on GE crops produced by the National Academies of Sciences, Engineering, and Medicine, which took into consideration nearly 900 scientific publications and other evidence and testimony on the topic.

"We found that there have been no cases of GEs causing problems for human health," says

UW–Madison biochemistry professor Richard Amasino, who served on the committee that wrote the report.

And yet, according to a 2015 Pew Research Center survey, only 37 percent of the general public feels it's safe to eat GE foods, or genetically modified organisms (GMOs), as they're often called. Yet eat them we do.

There are currently 10 GE crops grown commercially on 170 million acres of American farmland. The main ones are GE cotton, which we wear, and GE corn and soybeans, which we eat — in great quantities. They show up in cornmeal, cornstarch, corn syrup, dextrose, soybean oil, and many other ingredients in the processed foods we consume. And then there's the meat we eat — the animals are largely fed on GE grains.

“For many of us, we're eating transgenic food daily, probably with every meal,” says Irwin Goldman PhD'91, professor and chair of the UW–Madison horticulture department. “Unless you are extremely careful with ingredients, it is very difficult to avoid.”

Concerns about GEs go beyond food safety, including a general unease about possible long-term health or ecological impacts. There are also environmental issues, such as gene drift and the expansion of monoculture cropping systems, the corporate ownership of seeds, and the expansion and consolidation of farms. People's opinions aren't based on science alone, but incorporate political, economic, philosophical, social, and ethical factors.

And, notes Goldman, there's just something special about food: some people feel a deep cultural or spiritual connection to their food, and genetic engineering crosses a line for them.

“As a scientist, I look at it and I think [some GE crops] are extremely innovative, providing creative solutions to complex problems. ... I have no problem with them at all,” says Goldman. “But at the same time, I'm sensitive to those arguments that people make about what they want to eat and what they don't.”

**Potato farmers had some tough years** in the early 1990s, with climatic conditions just right for late blight: a wet spring followed by a cool summer. And then 1994 hit.

That year, the late blight pathogen, or *Phytophthora infestans*, mutated, becoming even more virulent. The existing fungicides didn't work against the new strain, no matter how much of them farmers applied. Potato fields across the northeast United States were decimated, including the potato test plots at the UW's Hancock Agricultural Research Station.

“The potato industry was caught by surprise because they never had such an issue. They were worried that it was going to wipe out the whole industry,” says Jiang, who was hired in 1995 to help develop a solution.

**170 million**

acres of genetically engineered crops are grown in the United States.

**9 spuds**

Jiming Jiang has been involved in developing nine non-GE varieties of potato at the UW: Millennium Russet, Mega-Chip, Villetta Rose, White Pearl, Freedom Russet, Red Companion, Red Pearl, Tundra, and W1386.

## CRISPR

Not all GE crops are the same. There are *transgenic* crops — those that have one or more “foreign” genes from a different plant or nonplant species added to their genomes. And then there are *cisgenic* crops, which contain added genes that come from within that crop or a very similar species.

CRISPR (which stands for clustered regularly interspaced short palindromic repeats) is a technology that creates *gene-edited* crops, in which scientists can make surgically precise changes to the native genes of an organism's genome.

The technology uses RNA to guide a protein to a particular spot in the genome. Depending on the protein, researchers can nick the DNA at that spot to either disable the gene or cause a one- or two-nucleotide change to alter the gene. In these cases, the change is made without adding any DNA. Scientists can also use a different protein and a DNA template to “rewrite” a particular stretch of the genome. In the end, the RNA guides and proteins are broken down and recycled by the cell.

“Before CRISPR, we didn't have a way to change a gene in its natural site. It's a great precision tool to have in the genetic engineering toolbox,” says UW–Madison biochemistry professor Richard Amasino, who uses CRISPR and other genetic engineering techniques, among other approaches, to explore questions about plant flowering.

If you alter a plant's genome without adding any DNA, does it count as genetic engineering? The way current federal rules are written, the answer appears to be no. The U.S. Department of Agriculture, for instance, has been treating CRISPR-edited crops that don't have any added DNA the same way it treats conventionally bred crops.

This was a factor in the federal government's decision to overhaul the *Coordinated Framework for Regulation of Biotechnology*, the rules that govern genetically engineered crops, which were published in 1986.

Amasino, who serves on a national committee that will assess and advise on the regulation issue, is intrigued by the idea that all new crops — no matter how they are made — should be looked at individually and assessed holistically.

“How a crop was created is important,” he says, “but that's just one part of looking at a product as a whole.”

Jiang teamed up with John Helgeson PhD'64, who was a UW professor of plant pathology at the time, to explore the one silver lining to the devastation at Hancock station: a wild potato plant from Mexico had survived in the test plot, suggesting that somewhere in its genome it possessed a resistance gene to the late blight pathogen.

Jiang and Helgeson immediately started trying to “cross” the resistant plant with popular commercial varieties, pollinating one with the other. But the Mexican plant proved to be a little bit too wild. “You cannot make it cross. It’s not possible,” explains Jiang.

At the same time, the two researchers started looking for the gene responsible for the resistance. They finally found it in 2003, named it RB, and used genetic engineering to put it into a cultivated potato.

## Gene drift,

or gene flow, is the unintended transfer of a gene from one species to another.

## Hidden Benefits

According to UW–Madison life sciences communication professor Dominique Brossard, who studies public opinion of controversial science, perceptions of genetically engineered foods are due in part to the various media messages consumers see about them — many of which are negative.

“There’s a percentage of the public that is against GE foods not because they see a lot of risk, but because they don’t see any benefits,” explains Brossard, who served on a national committee that assessed GE crops. “The problem with GE foods is their benefits have never been made salient.”

This past summer, President Barack Obama signed a bill into law creating a federal labeling standard for foods containing genetically engineered ingredients. The specific labeling rules, which still need to be written by the U.S. Department of Agriculture, will govern how these ingredients are identified on food products. The idea is to make it easier for consumers to know what they’re buying.

It’s unclear how labeling will affect consumer behavior. Will most Americans continue to purchase genetically engineered foods, as they do today? Will they embrace the new varieties that are in the development pipeline, many of which are designed to help address society’s grand challenges? In the coming years, there will be innovative GE crops available that help address sustainability, water shortages and drought, farming challenges associated with climate change, food waste, food insecurity, malnutrition, poverty, and other intractable problems.

“The potato has a very high level of resistance. You still see some little symptom here or there, but it’s going to keep greening and you really don’t have to spray,” says Jiang.

Jiang and Helgeson published their findings in 2003 and later inserted the RB gene into other popular commercial potato varieties using agrobacterium-mediated transformation, the most popular genetic engineering technique of the time.

The technique capitalizes on a type of bacteria that infects the roots of plants and inserts its own DNA into the plant’s genome. Scientists figured out how to piggyback on this functionality to insert desired genes into a plant’s genome at random locations. Then, as the plants grow, the researchers look for healthy ones that also express the new gene.

### Scientists started developing GE technology

for plants in the 1980s, and the first commercial genetically engineered crop — the Flavr Savr tomato — showed up in grocery stores in 1994. The product didn’t last long, as consumers found the tomatoes didn’t have much flavor to savor. Over the next couple of years, the first varieties of genetically engineered corn and soybeans were released.

These crops — and others — tend to feature one or both of two traits that are popular with farmers. Genetically engineered crops with the Roundup-Ready trait, a herbicide resistance gene, allow farmers to spray fields of corn, soybeans, and cotton with the weed killer glyphosate, a.k.a. Roundup, to keep weeds down without harming the crops. The Bt trait, however, helps to reduce the need for spraying. When crops have that trait, which produces an insecticide, pests die when they start eating the plant — no sprays needed.

“The seed companies make transgenic versions of their best varieties, and so farmers are buying them. Farmers really like the technology,” notes Goldman.

By the time Jiang and Helgeson’s late blight-resistant GE potatoes were ready, however, the crisis had passed. First, the weather changed, and then the chemical industry caught up with new, more powerful fungicides. Farmers also had more sophisticated disease management systems in place. All of this enabled them to stick to their tried-and-true varieties — spraying their crops, as needed.

“The situation was not desperate enough. That’s what I believe,” says Jiang. “If things had kept getting worse, I think the growers would have considered embracing [the GE potato].”

Jiang and Helgeson also managed — using some laboratory techniques — to fuse the cells of the wild potato with those of conventional varieties, and then used traditional plant breeding from that point on. It took 10 years, but they managed to produce a number of conventionally bred, late blight-resistant potato varieties as well.

But industry wasn’t interested. For Jiang, it was a second blow, though he took some comfort in the



*The first GE soybeans were introduced to the U.S. market in 1994. More than 80 percent of soy cropland uses GE varieties.*



*GE corn was introduced in 1996.*

*A genetically engineered variety of cotton called Bt cotton has been in commercial use since 1995. It produces its own insecticide (Bt toxin) to reduce the need for spraying.*



fact that he and Helgeson weren't the only potato breeders to have tried and failed.

Russet Burbank, the nation's most popular variety, has been in production since the early 1900s. It accounts for almost half of the potatoes grown in the country. Its many positive characteristics — including its shape and size, good flavor profile, and long storage life — make it McDonald's top tuber. Plant breeders just can't seem to beat it.

"The potato in many ways is like a wine grape. You have a variety, a cabernet or whatever, it's like 400 or 500 years old. [Vintners] don't want to change that," explains Jiang. "The potato ... is like this. Burbank, it's a terrible variety [in some ways]. It's susceptible to every disease. However, McDonald's wants [Burbank]."

**We can expect a deluge of new genetically engineered products** in the coming years with the growth of new techniques, particularly the cheap, easy gene-editing approach called CRISPR. (See sidebar on page 43.) The potential seems nearly limitless, and many plants will have traits that consumers value: more healthful vegetables with more phytonutrients; crops that don't turn brown as fast after they have been cut, reducing waste; crops that fix their own nitrogen, so they don't require much fertilizer.

"We certainly have the capability to drastically alter genomes. At this point, we're only limited by our understanding of plant biology, how things work inside plants," says Amasino.

Genetic engineering can even save crops from extinction. Before the GE Rainbow papaya, for instance, Hawaii's papaya industry was on track to be wiped out by *papaya ringspot virus*, a viral disease spread by aphids. A similar problem is unfolding in Florida right now, where citrus greening disease is destroying the state's orange groves. GE appears to be the only recourse. But there are also challenges associated with genetically engineered crops. The Roundup-Ready trait may be contributing to the phenomenon of Roundup-resistant "super weeds." Gene drift has been documented, so farmers need to take precautions to avoid contaminating nearby fields of conventional and organic crops.

In this evolving environment, groups are moving forward with GE crop development. The small seed company Simplot, for one, believes that the time has come for the GE potato.

Simplot, headquartered in Boise, Idaho, has developed GE potatoes that utilize the gene that Jiang and Helgeson discovered. These potatoes — known as second-generation Innate potatoes — could help farmers reduce fungicide applications to control late blight by 25 to 45 percent annually, according to academics consulted by the company. Based on these estimates, Simplot calculates that if all Russet Burbank potatoes in the U.S. contained this gene, farmers could cut the equivalent of one fungicide application over 495,000 acres.

In a separate project, scientists at the International Potato Center, a nonprofit research organization, are developing genetically engineered versions of popular local potato varieties that contain the UW-developed gene for Uganda and other African nations. The goal is to help the bottom line of smallholder farmers in the area, who spend the equivalent of 10 to 25 percent of their crop revenue on sprays.

Jiang hopes that these late blight-resistant potatoes — along with other GE crops — will find a way to succeed.

"We've all been doing the same thing for 125 years. You've exhausted your options; you've crossed everything with everything," he says. "If we want to work on nutritional value, flavor, tuber quality — those are very tricky, complicated traits. For these, we're going to need to rely on more precisely manipulating specific genes, rather than just going and blindly doing crosses."

Ultimately, consumers will decide the fate of Jiang's potatoes and all other genetically engineered crops.

"We're in a capitalist system," notes Amasino. "The public is going to have to want it." ●

*Nicole Miller MS'06 received her degree in life sciences communication. She serves as news manager for the UW's College of Agricultural and Life Sciences.*

# Then and Now

*A photographer marks a quarter-century of capturing UW–Madison.*



## WORDS AND PHOTOS BY JEFF MILLER

Visually documenting what happens on a university campus with the breadth and depth of the UW is an ever-evolving mission. Photographs are a unique medium, providing a sense of place and time; capturing people, styles, and milestones; and preserving a historical record.

I've had the privilege of capturing moments in the university's ongoing story (and not always in ideal weather) for the past 25 years. These are just a few of the images that I made during my first year on campus, paired with scenes from campus today.

UW–Madison is a big, complex institution that can be a struggle for the meek. It's also full of opportunities — many of which I've embraced, occasionally stumbled through, and sometimes failed to conquer. But I've always grown in ability and character as a result.

*The complete “Then and Now” series can be viewed at [news.wisc.edu/then-and-now](http://news.wisc.edu/then-and-now).*



APRIL 1991 / APRIL 2016

## Rocking Campus

I'm dating myself here, but do you remember the heyday of music videos and glam rock bands in the late '80s and '90's? They provided the soundtrack for many of that era's college students.

In April 1991, people on the Memorial Union Terrace got a firsthand look when MTV visited to film segments of its program *Hot Seat* with rock bands Nelson and Cinderella. You can spot students screaming in the background as the bands perform.

Fast forward 25 years, and Hayley Jordanna of the Chicago punk band Glamour Hotline offered up her unique vibe during a recent performance in The Sett at Union South. The show, organized by the Wisconsin Union Directorate's music committee, was part of FemFest, an evening of music featuring five feminist bands from the Midwest.



FEBRUARY 1991 / FEBRUARY 2016

## Prompting Change

The UW has a long-standing tradition of people challenging the status quo and vigorously campaigning to bring about political or social change.

In early 1991, I photographed more than 200 students and community members rallying as part of a nationwide protest against U.S. involvement in the Persian Gulf War. The group disrupted traffic on Johnson Street and University Avenue as it marched from Library Mall to Bascom Hall to present a petition requesting a day of supplementary education about the war. Then-chancellor Donna Shalala set aside February 8, 1991, as that educational day, but noted that classes would go on as scheduled.

On February 5, 2016, more than 50 people aligned with the Black Lives Matter movement interrupted a board of regents meeting on campus to call for increased diversity efforts in the UW System. After repeating its demands, the group peacefully left the meeting.

I'm optimistic that our campus community will continue the tradition of speaking out.



JULY 1991 / JULY 2016

## One City Block

This area of campus in particular — an entire city block bounded by University Avenue and North Park, North Brooks, and West Johnson streets — really stands out for me as one that has undergone enormous change. In July 1991, I photographed work crews demolishing a Walgreens store and the university's Law Clinical Programs building to make way for construction of Grainger Hall.

The \$34 million building — completed in 1993 and named for David Grainger '50, president of The Grainger Foundation and chair of the board of W. W. Grainger, Inc. — allowed the UW's business school to house all of its faculty and programs in one facility for the first time since the early 1970s. The Grainger Foundation contributed more than \$8 million toward the project — the single largest gift in the university's history at the time. In summer 2008, an addition to Grainger Hall — funded in part by a \$20 million gift from the foundation — added 131,416 square feet of space and a new main entrance.





NOVEMBER 1990 / NOVEMBER 2015

## Big Things Start Small

When I first met Robert Hamers '80, he was 32 and one of the newest members of the UW's chemistry faculty. I was 26 and documenting his research in the newly evolving area of scanning tunneling microscopy and nanotechnology. Fall 1990 was the first semester on campus for both of us.

Hamers explained that a scanning tunneling microscope gave researchers an otherworldly look into really tiny stuff, offering the potential to understand how one might modify electronic and chemical properties of things at this minute level.

Twenty-five years later, Hamers spends less hands-on time in the lab. As a Wisconsin Distinguished Professor and Steenbock Professor of Physical Sciences, he's busy teaching, guiding graduate students, and running projects in multiple research labs. He also directs the Center for Sustainable Nanotechnology, a multi-institutional research center based at the UW that focuses on the molecular mechanisms by which nanoparticles interact with biological systems.

"I'm having a fun time coordinating and collaborating with all these smart people," Hamers says.

I couldn't agree more.

*Jeff Miller is senior photographer for University Communications at UW-Madison.*

# On Alumni

Alumni News at Home and Abroad

## 2016 Distinguished Alumni Awards

*Three alumni who  
really wow us*

For 80 years, the Wisconsin Alumni Association has honored exceptional alumni with Distinguished Alumni Awards. Early recipients include actor Fredric March '20 of *Dr. Jekyll and Mr. Hyde* fame and Helen C. White PhD'24, the beloved English professor whose name now graces College Library. More recently, alumni such as Earth Day founder Gaylord Nelson LLB'42, scientist Carl Djerassi PhD'45, and fashion icon Iris Apfel '43 have joined their ranks. We imagine they'd be as proud as we are to welcome this year's honorees into the fold.

For more on the award winners, see [uwalumni.com/awards](http://uwalumni.com/awards). The deadline for 2017 Distinguished Alumni Award nominations is December 16.

**John Daniels Jr.** was the first African American lawyer in the United States to start as an associate in a major law firm and become chair.

**Judith Faulkner**, who earned her MS in computer sciences, serves on the department's board of visitors, and the company she founded, Epic Systems, has endowed three computer sciences faculty positions.

**Doris Weisberg** serves on the Memorial Union Building Association and is helping to position the Wisconsin Union to use locally grown products in its food-service operations.



### **John Daniels Jr. MS'72**

John Daniels Jr. is chair emeritus at the national law firm Quarles & Brady. As chair, he grew the law firm significantly during the worst downturn since the Great Depression. A nationally recognized expert in real estate and business law, he has been involved in some of the nation's most complex real estate redevelopment projects. He is the former national president of the American College of Real Estate Lawyers and has represented major corporations such as General Electric, Kraft Foods, and Xerox.

After earning his MS in education, Daniels received his JD from Harvard University. Over the years, he has been a major force for civic good in Milwaukee. He has worked as lead lawyer on many signature downtown projects. He also helped organize an annual golf tournament, the Fellowship Open, that raises money to support children in need, and he has worked with his brother, a Milwaukee clergyman, on a number of community housing and education projects.



### **Judith Greenfield Faulkner MS'67**

Judith Faulkner is the founder and CEO of Epic Systems, which she launched in 1979 in an apartment-house basement. Epic has since grown to become a leading provider of integrated health care software, with clients that include the Cleveland Clinic, Johns Hopkins, Cedars-Sinai, Kaiser Permanente, CVS Health, and Walgreens. More than half of the U.S. population has medical information in an Epic system. Faulkner has kept the company privately held and has built a sustainable corporate campus in Verona, Wisconsin, with 9,900 employees.

In 2013, *Forbes* magazine called her the "most powerful woman in health care." Faulkner has pledged to donate 99 percent of her assets to philanthropy. UW-Madison awarded her an honorary doctorate in 2010, and she is a member of the National Academy of Medicine's Leadership Roundtable. She also served on the Health Information Technology Policy Committee, a federal advisory group that helps to shape IT-related health care policy, and its Privacy & Security subcommittee.



### **Doris Feldman Weisberg '58**

Doris Feldman Weisberg was part of the team that launched the Food Network, where she produced numerous shows and was the managing editor of food news. She has also produced cooking shows for Lifetime Television. Prior to that, she was on the faculty of City College of the City University of New York, where she taught for 26 years. She was director of the Speech and Hearing Center and retired in 1992 as chair of the speech department.

Weisberg earned her bachelor's degree in psychology and went on to receive her MS and PhD from Columbia University. She serves on the political science department's board of visitors, and she is also on the board of the Wisconsin Foundation and Alumni Association and is a member of its Women's Philanthropy Council. She and her husband have created a planned gift to establish the Doris Feldman Weisberg and Robert Weisberg Center for Progressive Political Thought. They also established the Doris and Robert Weisberg Current Issues Symposium Fund at the Memorial Union to bring relevant and timely speakers to campus.



UW–Madison’s long-standing tradition of fearless sifting and winnowing is rekindled each year through the Distinguished Lecture Series, which since 1987 has hosted intellectual jousts and provocations. More than 200 speakers have appeared over the last three decades.

The roster includes the late Kurt Vonnegut, who was 80 years old when he spoke on campus in 2003. The *Slaughterhouse-Five* author managed to elicit both chuckles and contemplation from the crowd at the Wisconsin Union Theater, even through a coughing fit. With unruly hair and a craggy face, Vonnegut bounced across topics from his career to his desired epitaph, “The only proof he needed for the existence of God was music.”

But students have not always

#### WHAT’S YOUR FAVORITE UW TRADITION?

Tell *On Wisconsin* at [onwisconsin@uwalumni.com](mailto:onwisconsin@uwalumni.com), and we’ll find out if it’s just a fond memory or if it’s still part of campus life today.

welcomed these speakers with open arms. When the late conservative activist Phyllis Schlafly visited campus in 1993 to speak about the “liberal media” and feminist movement, about 80 students protested her views on abortion and family rights.

Speakers visit campus with messages both inspirational and timely. They’ve included astrophysicist Neil deGrasse Tyson, who in 2009 lamented how “scientific illiteracy” has bred a fear of the unknown.

“Here we are in a country professing to be advanced technologically, but there are people among us afraid of the number 13,” he told the crowd.

Other speakers have included the late conservative political commentator Robert Novak, the late Holocaust survivor and Nobel laureate Elie Wiesel,

former South African State President F. W. de Klerk, and Roman Catholic nun Helen Prejean, a leading advocate for abolition of the death penalty.

Most recently, transgender actress and activist Laverne Cox (pictured above), who plays Sophia on Netflix’s *Orange Is the New Black*, called out North Carolina’s so-called bathroom bill and declared that “trans is beautiful” to a crowd of more than 1,300 in May 2016.

During a Valentine’s Day visit in 1990, the late poet Maya Angelou urged audience members to embrace courage, to dispel ignorance, and to take advantage of the opportunities created by their forebears. “This is your life — yours alone,” Angelou said. “So, in this time, make use of it.”

RILEY VETTERKIND X’17

# Exhibition *Pioneering Glass Artist*

JOHN HART/WISCONSIN STATE JOURNAL



AUDREY HANDLER (2)



Audrey Handler was one of the early students of famed UW professor Harvey Littleton, who pioneered the studio glass movement. She is known for her glass fruits and vegetables, such as the bell pepper at left, as well as platters and vases (below).



**Audrey Solomon Handler MA'67, MFA'70** is in fine company: when she earned the Wisconsin Visual Art Lifetime Achievement Award, she joined honorees **Frank Lloyd Wright x1890** and Georgia O'Keeffe.

Handler was an integral part of the studio glass movement, an artistic revolution that began in the 1960s with UW-Madison professor **Harvey Littleton**. He and his students experimented and learned together, renting old glass-blowing films from the Corning Museum of Glass and trying to emulate the techniques. "It was so exciting," Handler recalls. "Every day was something new."

In 1971, Handler and other classmates, including the late **Marvin Lipofsky MFA'64, MA'64**, formed the Glass Art Society. She is one of only a few women who were in the movement at the beginning, and one of even fewer from that era who are still working. "Glass blowing is very hard on your body, and I've been doing it since 1965," she says.

Handler's work embodies the studio glass movement's mission of artistic individuality. When she creates glass bowls and platters, she introduces a spider-web pattern in the background. It's a technique that is often achieved by accident, but she does it intentionally. "You want to make something distinctive, that's your own," she says. She's also known for her *Pear in a Chair* series, which combines wood and blown glass with silver and gold cast figures — a collaboration with her husband, John Martner.

More recently, she has produced paintings that feature glass paint fired on tile, creating surreal landscapes.

Handler works year-round in her Verona, Wisconsin, studio — a converted 19th-century cheese factory that is one of the nation's longest-running glass-blowing studios.

**CHELSEA SCHLECHT '13**

# Conversation *Brandon Shields MBAx'17*

With a goal of diversifying corporate America, 18 universities, including the UW, are working together to connect 400 MBA students of color with corporate partners each year. Brandon Shields MBAx'17, a captain in the marine reserves who is raising his two-year-old son as a single parent, is earning his MBA through the Consortium for Graduate Study in Management at the Wisconsin School of Business. He's secured a full-time job at DuPont after graduation, and is developing an app to make child care more accessible for parents.

## ***What led you into the business world?***

When I was in Afghanistan, I would get care packages — certain products like a can of Pringles or ChapStick — and they would instantly bring me back to Philadelphia with my siblings. When you're in combat, there are just certain products that can really transport you. It was that connection that led me to brand management at UW.

## ***Why is the consortium program so important?***

When I was in the marines as an officer, there were very few African Americans in my position. It's the same in the business world: there are not that many black executives. A program like the consortium helps develop that pipeline. When [my son] is going to the Wisconsin School of Business [someday], I want him to have a minority CEO to look toward and aspire to be.

## ***What do you bring to the business world as a veteran?***

Being a veteran from a young age, I was charged with leading people older and younger than me. You don't find that with

some 22-year-old kid who just graduated from college. When you're in the military, you've just got to go for it. You have to accomplish your mission. Taking a chance on starting a company or new job is not as scary when you compare it to things you've experienced in the past.

## ***Tell me about your app for finding quality child care.***

If there [were] somehow I could get sitters like the ones I currently have — but instantaneously and credentialed — that would be great. [I want to] harness the network effect of being a part of UW–Madison. There's a huge talent pool of

students who are going into the education pipeline. They're already working in our daycare centers, so why not provide them an opportunity to earn some extra cash when they're not at work or class? They would upload their schedules, and then a parent would go on and see who is available and hire a sitter. I'd scale this model out wherever there is a university.

*Interview conducted, edited, and condensed by Riley Vetterkind x'17  
Photo by Bryce Richter*



## 40s-50s

"Originally I was in the Class of '45, but WWII made that 1948," writes **Robert O'Donnell '48** of Fort Myers, Florida. As a VP for Reynolds Aluminum, he headed the division that introduced the aluminum can and the Stay-On-Tab to the beer and soft-drink market. By the time he retired, the company was operating 14 plants worldwide. O'Donnell is pleased that one of his four children and one of his 11 grandkids are Badger alumni.

**Alan (Adolph) Grunewald MS'51, MBA'52, PhD'55** of East Lansing, Michigan, packed a lot of living into his few words to us. The World War II veteran and former U.S. Army Air Corps member is now a Michigan State professor emeritus who had a "great career, traveled the world over," and taught in Berlin, Potsdam, Moscow, and Brazil.

The Des Moines [Iowa] Metro Arts Alliance recognizes art excellence and community contributions with its Artist AWE (Arts Within Everything) Award, and it honored **Janet Hart Heinicke MA'56** with its 2016 prize. The professor emerita and former chair of the Simpson College art department in nearby Indianola has encouraged artists to achieve their potential, worked diligently for women's empowerment, and exhibited her own artwork worldwide.

## 60s

In June, **Kurt Brokaw '60, MS'61** told the Daily Cardinal Alumni Association's *Hot Type and Line Tape*, "I was lucky finding one of the first J-schools friendly to advertising," and he wrote the UW's first master's thesis on TV commercials. Brokaw spent 30 years as a "Mad Man" in three New York ad agencies and as RCA Records' creative director. In 2000, he refocused on teaching at New York City's The New School and the 92nd Street Y; film reviewing as the senior film critic for

America's longest-running film journal, the *Independent*; and rare-book collecting and selling.

**Joyce Carol Oates MA'61** was one of 33 new members elected to the American Philosophical Society in April. She is acclaimed by critics and beloved by generations of readers as a novelist, playwright, poet, short-story author, critic, and longtime professor at Princeton University who has unflinchingly explored a vast range of contemporary issues. She also holds a Pulitzer Prize, National Book Award, and National Humanities Medal.

**Joan (Rosen) Saslow '66, MA'68's** coauthored, multi-level communication course Top Notch: English for Today's World — one of the world's most widely used American English textbook series and among several that she's produced — has garnered a 2016 Textbook Excellence Award from the Textbook and Academic Authors Association. "I am indebted to the University of Wisconsin for my success as an author and an educator," she says.

Who's one of *Irish America* magazine's inaugural Top 50 Power Women? She's **Susan Ann Davis '68**, chair of Susan Davis International, a global communications firm headquartered in Washington, DC. She spearheaded the Global Irish Forum's recommendations to develop Ireland as a hub for smart-aging technologies, chaired the U.S.-Ireland Business Summit, and serves as the board vice chair of the Irish Smart Aging Exchange and board chair of the Vital Voices Global Partnership NGO and Razia's Ray of Hope Foundation.

## 70s

**Michael Feldman '70's** departure from the radio airwaves broke a lot of hearts in June when he broadcast his final *Whad'Ya Know?* after 31 years. Wisconsin Public Radio had

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announced the cancellation of the live, weekly, Madison-based comedy/quiz program in March, citing a decline in the number of stations carrying it. Feldman and his devotees bounced back with a Kickstarter campaign to relaunch *Whad'Ya Know?* as a podcast and livestream on YouTube, and a grateful audience applauded this comeback in September at Madison's High Noon Saloon. *Whad'Ya Know?* was a 1997 Museum of Television and Radio inductee and became a board game in 2003.

The teaching and research of chartered structural engineer **Paramasivam Jayachandran MS'71, PhD'75** have focused on tall buildings, structural design agents, and finite element structural analysis, and he's now a professor emeritus at Worcester [Massachusetts] Polytechnic Institute. He's also been a senior project engineer, an MIT visiting professor, and a visiting scientist at the National Institute of Standards and Technology and National Grid. Jayachandran, of San Francisco, says that "the excellent education I received in Wisconsin made it all possible."

At the University of North Carolina-Asheville's May commencement, **John Cram '72** of Asheville accepted an honorary doctor of fine arts. He's opened two galleries and two clothing stores, revitalized the city's Fine Arts Theatre, and served as a quiet "ecohero" and a political and community-renaissance leader. Cram also earned the state's highest civilian honor, the North Carolina Award in fine arts, in 2013. Thank you, **Liz Huesemann '78** of Asheville, for sharing this.

Felicitations to **Mark McElreath MA'72, PhD'75**, who's been inducted into the Hall of Fame of Rowan University's Department of Public Relations. The professor emeritus at Maryland's Towson University is the author of *Managing Systematic and Ethical Public Relations*

## Recognition *Dorri McWhorter '95*

*Campaigns.* McElreath has also served on the PR industry's Universal Accreditation Board, was instrumental in establishing the International Association of Business Communicators' code of ethics, and spent two decades working to establish Russia's first university-based PR program. He (and his adorable cats) are retired in Washington, DC.

You've heard of professional golf's green jacket, but **Jack Kaltenberg '73** is the inaugural recipient of the Wisconsin Agricultural and Life Sciences Alumni Association's (WALSAA) Daluge *Red Jacket* Award, which will henceforth go annually to someone who has helped WALSAA to grow. It honors Madisonians **Peggy Schneider Daluge '70** and **Rick Daluge '71, MS'75, PhD'82**, who, now retired, was WALSAA's long-time executive director, the UW College of Agricultural & Life Sciences' placement director and assistant dean, and the director of its Farm and Industry Short Course. Kaltenberg, of De Forest, Wisconsin, was an early WALSAA president and co-owns Partners in Production.

The United States Sports Academy's Distinguished Service Award recognizes those who have made outstanding instruction, research, or service contributions to the sports profession, and the 2016 honor belongs to **Gretchen Kelsey Brown '74**. She cofounded the Madison-based *Athletic Business* magazine, which hosts the annual Athletic Business Conference; and she's the CEO of Athletic Business Media, which also publishes *AQUA* and *Hardwood Floors* magazines.

Pedro Pablo Kuczynski — a former World Bank economist who has served as Peru's prime minister and finance minister — emerged as the narrow winner of that nation's presidential election in June. His spouse, **Nancy Lange '76, MBA'80**, is now Peru's First Lady! Her



ALISSA PAGES

### UBER ADVOCATE FOR WOMEN

As the CEO of YWCA Metropolitan Chicago, **Dorri McGhee McWhorter '95** is garnering headlines for reimagining the 140-year-old nonprofit's business model with new ideas and technology. The group's mission is to empower women and eliminate racism, and providing jobs is one way to achieve that.

McWhorter has initiated a partnership with Uber, which connects people who need rides with freelance drivers via smartphones. Hiring women is vital to Uber's expansion goals, and it wants to add a million female drivers around the world by 2020. Chicago is a key market, where three times as many women as expected signed on to become drivers after the collaboration began.

McWhorter sees Uber as an economic opportunity for women who need flexible work schedules. "I feel such a sense of urgency," she says. "I see possibilities everywhere. We can create solutions and value for everyone, and because we can, we should."

Born in Chicago and raised in Racine, Wisconsin, McWhorter was a partner at the accounting firm Crowe Horwath before joining the YWCA.

Among other innovations, she created the online marketplace YShop.org, which supports the YWCA by promoting partner companies that donate a portion of their sales to the organization. The site, which offers everything from couture diaper bags to gourmet brownies to consulting services, has had 9,000 unique visitors in just over one year, helping the organization to reach a new audience.

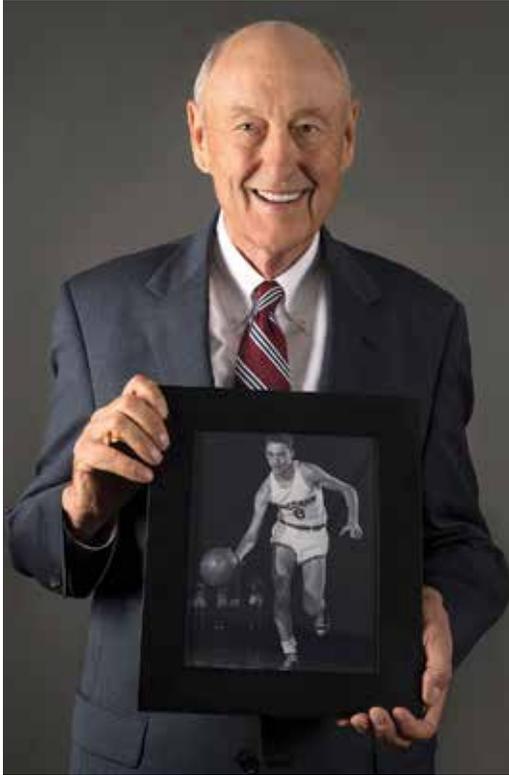
McWhorter also started Myrtle's Club, which provides business classes, group purchasing, and other services for childcare providers. The club supports the people who offer critical support to the workforce, she says, adding, "Without them, how would parents work? We need them to stay open. We want to make sure these child care providers have the support to run efficient businesses."

Although McWhorter was an accounting major at the UW, she took many courses outside the business school, including geology, English literature, anthropology, and African American studies.

"All those courses I took were playing into my social-justice side," she says. "[Scientists are] working on a spaceship to get to Mars, but we have not yet solved some fundamental human-rights and social-justice issues here on Earth. It just fuels me to work fast and get it done."

**SHEON WILSON**

PAUL NEWBY/II



## FAREWELL TO A GOOD FRIEND

**Albert "Ab" Nicholas '52, MBA'55**, a former UW System Board of Regents member and one of the university's most dedicated supporters, passed away in August, but he left his fingerprints on the University of Wisconsin–Madison in myriad ways. Together with his wife, **Nancy Johnson Nicholas '55**, he worked to open the UW's doors to generations of new students, and they gave one of the largest gifts in the university's history to support scholarships and fellowships.

A standout guard on the Badger basketball team, Nicholas decided to forgo a career in the NBA and instead served in the army and then launched the Nicholas Company, a high-performing investment fund. He gave large sums to charity, particularly to UW–Madison, supporting the schools and colleges that taught him, Nancy, and many members of their family.

"The University of Wisconsin holds a special place for Nancy and me," said Ab in 2015. "It's where we met and where our three children and six of our grandchildren have gone to university. I learned the lessons in the classroom and on the court that have fueled my career. And we made lasting friendships and continue to enjoy an amazing alumni experience."

That connection helped to inspire a lifetime of giving back to the university. Between 1982 and 2014, the Nicholases donated nearly \$50 million to student services, the Department of Athletics, the Wisconsin School of Business, and the School of Human Ecology, establishing Nancy Nicholas Hall as the home of human-ecology studies on campus.

In June 2015, the Nicholases offered a \$50 million matching gift to inspire UW alumni and friends to donate in support of undergraduate and athletic scholarships and graduate fellowships at UW–Madison.

Nicholas served as president of the UW's National W Club, which supports intercollegiate athletics, and he was inducted into the UW Athletics Hall of Fame in 2009. He was named a Wisconsin Distinguished Business Alumnus in 1985 and earned the Wisconsin Alumni Association's Distinguished Alumni Award in 1993.

"He was among the most generous and thoughtful people I've had the pleasure of meeting," UW–Madison chancellor **Rebecca Blank** says. "The Nicholas family has a history that goes back five generations at the UW. Ab's legacy will be part of this campus for decades to come."

**STAFF**

career in international investments has taken her nearly everywhere on the planet and has allowed her to truly live her undergrad double major in international relations and, now, political science.

Chicago's Bexley Seabury Episcopal seminary has welcomed back **(David) Scott Stoner '77**: after earning his master of divinity degree from Seabury-Western, he's now an affiliate professor of practical theology. He's also the founding president and executive director of the Samaritan Foundation for Church and Family Wellness; the creator of Living Compass, a wellness ministry; and a pastoral counselor and family therapist.

**Julianne Stern Greenberg '79** has been inducted as a fellow of the American College of Radiology — one of its highest honors. She's also the director of breast imaging at Washington Radiology Associates in Fairfax, Virginia.

The State Bar of Wisconsin's president-elect is attorney **Paul Swanson JD'79**, a partner with Steinhilber, Swanson, Mares, Marone & McDermott in Oshkosh; and Steinhilber, Swanson, Resop & Sipsma in Madison. He's also completing his term as state-bar treasurer and has served as the president of the National Association of Bankruptcy Trustees.

## 80s

*Easel on Down the Road is*

**Anne Corlett '82**'s "quest to paint a landscape in every U.S. state: 29,604 miles of driving, 164 days away from home, 50 states, three years of planning, painting, and travel." Along the way, she says, "I would learn to trust myself — my judgment, my intellect, my good heart." The resulting 50 works appeared in a summer exhibit at the Saugatuck [Michigan] Center for the Arts in her home community, and she's produced a book about her journey as well.

# On Alumni Class Notes

**Antonio Romanucci '82** has made a first-of-its-kind philanthropic gift of \$100,000 to the Pro Bono Program and Clinic at Chicago's John Marshall Law School, of which he is also an alumnus. A founding partner and principal at the law firm of Romanucci & Blandin in Chicago, he focuses on catastrophic personal injury and wrongful death cases — a passion sparked when his high school best friend suffered a fatal brain injury while playing football.

Dane County [Wisconsin] Circuit Court Branch 3 has a new judge in **Valerie Bailey-Rihn '84, JD'91**, a partner in the Madison office of the law firm of Quarles & Brady. She will serve for six years.

Madison native **Peter Rodgers '84** is coming home to become the Madison Symphony Orchestra's new director of marketing after 25 years in California. There, he was the Marin Symphony Orchestra's director of marketing, the founder and creative director of the Montara Creative marketing firm, and the director of marketing and communications for the Center for Volunteer and Nonprofit Leadership. Rodgers replaces **Teri (Teresa) Venker MA'82**, who retired in July, as the orchestra begins its 91st season.

**Scott Sigman '84** is putting his London School of Economics and Political Science master's degree in economics — with a specialization in sea use — to work serving on the Maritime Transportation System National Advisory Committee, which advises the U.S. secretary of transportation. The Elmhurst, Illinois, resident also works with the Illinois Soybean Association for Transportation and Export Infrastructure.

Kutztown [Pennsylvania] University has named **Kenneth Teitelbaum PhD'85** as its new College of Education dean. He was previously a dean and professor at both the University

of North Carolina–Wilmington and Southern Illinois University–Carbondale, and he earned a 2015 Distinguished Alumni Achievement Award from UW–Madison's School of Education.

Who decides which TV programs air and when? At public television station UNC-TV in Research Triangle Park, North Carolina, he's **Bryan Sodemann x'86**, who learned the ropes at Madison's WHA-TV. (Just sayin'.) He's been UNC-TV's lead program scheduler since 1999, now filling its four channels with 24/7 shows, and in May was named Programmer of the Year by the Public Television Programmer's Association. A former UW Marching Band snare drummer, he also plays in two bands. Thanks to **Jan Thorpe White '53** of Cary, North Carolina, for this update.

**Kathy Koller '87** of Brooklyn, New York, is expanding on her years of Buddhist meditation practice through *Radiance*: a new television show that airs in New York City and online at RadianceTalkShow.com. It introduces spiritual practices from diverse traditions including Buddhism, Christianity, Hinduism, Islam, and shamanism, and Koller hopes it will inspire viewers to explore further. She also offers mindfulness meditation workshops.

**(Chun-Chih) James Liao PhD'87** — the former Parsons Foundation professor and department chair in chemical and biomolecular engineering at UCLA — has been named president of Taiwan's highest academic institution, Academia Sinica in Taipei. While visiting Madison in April, he said that “one afternoon with **Ed Lightfoot** changed my life” because UW professor Lightfoot convinced Liao to “apply control theory to the biology of metabolism.” Liao has also been elected to the National Academy of Engineering and the National Academy of Sciences.

**WISCONSIN ALUMNI ASSOCIATION (WAA) MEMBERSHIP**  
We appreciate our loyal WAA members! Non-members, we'd also appreciate it if you'd review the cool reasons to become a member at [uwalumni.com/membership/benefits](http://uwalumni.com/membership/benefits). If you're so inclined, you can then join this special Badger community at [uwalumni.com/membership](http://uwalumni.com/membership).

**WELCOME, ALL!**  
The Wisconsin Alumni Association (WAA) encourages diversity, inclusivity, nondiscrimination, and participation by all alumni, students, and friends of UW–Madison in its activities.

**“One afternoon with [UW professor] Ed Lightfoot changed my life.”**

**(Chun-Chih) James Liao PhD'87**

When Scotland's University of St. Andrews — founded in 1413! — lauded its top educators in April, **Jeffrey Murer '88** garnered the new Contribution to Excellence in Education honor, created to recognize powerfully influential teaching. He's a lecturer on collective violence in the university's School of International Relations and a member of the RSE (Royal Society of Edinburgh) Young Academy of Scotland. Says Murer, “I know that my passion for working closely with my students came from my experiences at Madison.”

Hearty congratulations and best wishes to **Susan Traverso MA'89, PhD'95** as she leaves her nine-year service as provost and senior vice president of Elizabethtown [Pennsylvania] College to take the reins of Thiel College in Greenville, Pennsylvania, as its president.

## 90s

**Frederick Domann Jr. PhD'91** had a stellar spring: he became the Society for Redox Biology and Medicine's president-elect and earned a Distinguished Scientist Award from the Society for Experimental Biology and Medicine. He's a professor of radiation oncology and pathology/surgery at the University of Iowa in Iowa City; he directs its Molecular and Cellular Biology Graduate Program; and he codirects both its Radiation and Antioxidant Enzyme Core Service and Free Radical Cancer Biology Program.

Newly listed on the National Registry of Certified Microbiologists — which covers the fields of biological safety, food, pharmaceuticals, and medical devices — is **Randal Wolff PhD'94**, a research safety officer with the Department of Veterans Affairs in Madison. To earn the credential, he met rigorous educational and experiential requirements and passed a comprehensive exam.

Let's hear it for **Matt Boatright-Simon '95** — an award-winning writer, actor, and director of stage, film, TV, and commercial works — and *Sherlock Holmes' Smarter (Half) Brother!* He wrote, produced, directed, and stars in this “brash, witty, and hilarious” play that debuted this summer at the world's biggest arts celebration: the Fringe Festival in Edinburgh, Scotland. Boatright-Simon also scored for the national-champion Wisconsin crew and speaks Mandarin.

**Robert Simpkins MA'95, PhD'11** is a newly tenured professor of anthropology at Porterville [California] College who also coordinates the campus's event series and Cultural and Historical Awareness Program and advises the Anthro Club.

**Christopher Hanson '96** is a U.S. Navy Reserve public-affairs officer who's “stepped away” from his civilian post as the president/CEO of the Veterans Assistance Foundation in Tomah, Wisconsin, to deploy for up to a year in Kabul, Afghanistan. There, he's the director of public affairs for Combined Security Transition Command–Afghanistan for the Resolute Support mission. Hanson marked his 25-year navy anniversary in July.

In May, San Francisco civil-rights attorney **Mike Laux '96, JD'02** settled a 2010 case involving a police officer who killed a colleague's father in Little Rock, Arkansas. Representing the deceased's sons in their wrongful-death lawsuit, Laux notes that the settlement of \$1.4 million — plus an apology from the city of Little Rock and a memorial bench — “set a monetary record in the state for civil-rights [settlements].” The *Washington Post* and many other national and local media covered the story.

**Brenda Velasco '96** was one of 154 educators chosen — on her first application from a

**WHO AM I, ANYWAY?**  
Do you ever wonder what to call yourself as a UW–Madison graduate? If you do, you're far from alone. See which of these fits you best: one female grad is an alumna; one male grad is an alumnus. Members of an all-female graduate group are alumnae. And, although it's often mistakenly used in a singular context, alumni is plural and refers to members of an all-male graduate group or a mixed group of male and female grads. (Thus, an individual cannot be an alumni.)

**X-PLANATION**  
An x preceding a degree year indicates that the person did not complete, or has not yet completed, that degree at UW–Madison.

nationwide pool of more than 1,500 — to participate in the weeklong 2016 Mickelson ExxonMobil Teachers Academy this summer. PGA star Phil Mickelson and his wife, Amy, founded the math and science professional-development program together with the National Science Teacher Association, Math Solutions, and ExxonMobil. Velasco teaches third grade in Rapid City, South Dakota.

**Rebecca Kurziak Arayan '97** is the new executive director of the Georgia Radio Reading Service, an Atlanta-based, nonprofit closed-circuit radio station. More than 200 volunteers deliver cover-to-cover readings of books and periodicals and much more on a 24/7 basis through 200-some shows each month. The service seeks to “improve the quality of life for every Georgian who is blind, visually impaired, or has difficulty with the printed word.”

**Michelle Sapp Nettles JD'97** is the chief people and diversity officer for the Molson Coors Brewing Company following its acquisition of SABMiller's stake in MillerCoors, for which she had been the chief people officer. In her newly created, Denver-based post, Nettles will oversee the company's employees globally. She and her husband, **Cory Nettles JD'96** — of counsel in Quarles & Brady's Milwaukee office, the founder and managing partner of Generation Growth Capital, and chair of the Greater Milwaukee Foundation board — are active on Milwaukee-area boards.

Here's what's up with some Badger attorneys from the '90s and beyond. New partners include **Luis Arroyo III MS'98, JD'98** and **Michelle Wagner Ebben '06**, both at Michael Best & Friedrich in its Milwaukee office; and **Gretchen Harris Sperry '99** at Hinshaw & Culbertson in its Chicago office. **Jillian Murphy**

**'08** has also joined Potestivo & Associates as an associate attorney in its Chicago office.

LIM College — a New York City institution that focuses on business and fashion — has promoted **Laurel Lueders '98, MS'02** from arts and sciences lecturer to chair of its visual merchandising department. She also led LIM's The Arts in Florence [Italy] program this summer and completed an arts residency in Berlin. Previously on the Art Institute of New York faculty, Lueders is a designer and artist whose work has been collected and exhibited worldwide.

**Kate Barrette Kazlo '99** began her career with the home-furnishings brand Shabby Chic, living in Los Angeles and traveling to New York to manage its retail division. Returning to her Badger State roots, she opened The Home Market — a retail purveyor of furniture, home accents, bedding, and lighting for a “casual, elegant style” — in Milwaukee in 2006 and in Madison this spring. Kazlo also works with clients nationwide on custom design projects. The Home Market's manager, **Taren Mansfield '14**, sent this news.

## 00s

At New Jersey's Baltusrol Golf Club in July, **Ryan Helminen '00** — a golf pro at Ridgeway Country Club in Neenah, Wisconsin — made his third consecutive PGA Championship appearance as one of 20 PGA club professionals to qualify. This honor is a balancing act, however: unlike tour players, PGA teaching pros must ensure that their club responsibilities are handled while they're away from their home clubs in competition play.

**Brendan Sweeney '01** proudly announces the opening of Sweeney Law in Fort Lauderdale, Florida, which focuses on business, construction, consumer, and real-estate legal matters plus Title III-ADA litigation.

**Chris Henjum '04** of Minneapolis has cofounded Esqyr: “the first and only public-benefit corporation focused on affordable test prep,” he says, “with a social mission to prevent or reduce student debt.” Esqyr uses materials from credential-granting and licensing organizations to offer online study tools and donates 20 percent of its profits to reduce student debt. Esqyr launched with bar-exam tools and plans to expand soon. Henjum also has a “day job as an attorney working at the Minnesota legislature and long nights as a recent father.”

**Megan Lotts MFA'04, MA'07** of New Brunswick, New Jersey, earned the moniker “the Lego librarian” after she installed a Lego play station in the Rutgers University art library, where she’s a pioneering librarian. Lotts then took a hundred pounds of Legos and her mission to redefine libraries’ educational role — as “maker-spaces” where the community can collaborate, invent, think critically, and tackle problems — to host workshops at 20 academic libraries in several states.

Milwaukeean **Jake Kocorowski '06** writes and edits for Bucky’s 5th Quarter, the SB Nation website dedicated to the Badgers; and he cohosts the Kielbasa Kings Sports Extravaganza podcast. He’s also written *Walk-On This Way: The On-Going Legacy of the Wisconsin Walk-On Tradition* with former Badger walk-on tight end **Joel Nellis '06** of Delafield, Wisconsin. The book chronicles the contributions of football players who arrived at the UW without scholarships, such as **Chris Maragos; Mark Tauscher '99, MS'03; Jimmy Leonhard '06; and Jared Abbrederis '13.**

**Daniel Leitch PhD'06**, a UW–Platteville associate professor of special education, left in August for a six-month stay in Germany. He’s helping



### HAPPIER COWS, HEALTHIER PEOPLE

A growing population is placing greater demands than ever on the world’s food supply. But along with that increased need is a desire to know both where our food comes from and the conditions under which it is produced. Ideally, consumers want to be assured that food is made as safely — and that animals are treated as humanely — as possible. Thanks to work being done by UW–Madison faculty, the Dairyland Initiative is helping farmers to raise healthier cows and making Wisconsin dairies more efficient and productive.

**Nigel Cook** of the School of Veterinary Medicine spearheaded the program based on years of field experience and research on dairy-cattle production, behavior, and biology. Using a web-based tool, he unites farmers, consultants, lenders, and builders, providing insights into animal behavior and output. The goal is to help dairy owners create conditions that will optimize their herds’ comfort and well-being, and sustainably improve milk production.

Major companies in the dairy industry have taken note of the Dairyland Initiative’s success in Wisconsin, lending their support to expand access to its online resources. The initiative has grown substantially, helping farmers nationally and internationally to plan new facilities and systems that help to reduce injury and disease, improve animal welfare, and increase milk production and profitability.

Farmers in every nation are struggling to solve problems of animal health and welfare, drought, high temperatures, and other issues that put the United States and the world at risk for food scarcity. The Dairyland Initiative and other agricultural practices that have their roots in Wisconsin are playing a vital role in continuing to feed people at home and across the globe.

Projects such as this benefit from private gifts. For more information about supporting UW–Madison’s tradition of groundbreaking research, visit [allwaysforward.org](http://allwaysforward.org).

students at the UW–Platteville sister school Darmstadt University to understand international perspectives surrounding the Syrian refugee crisis and is assisting refugees directly through the nonprofit Helping Hands.

**Bryce Littlejohn MA'07, PhD'12** is hunting for the sterile neutrino! As an assistant professor of physics at the Illinois Institute of Technology in Chicago, he's part of PROSPECT — the Precision Oscillation and Spectrum Experiment — in which researchers will construct a detector that can be placed near a nuclear reactor's core to try to catch a hint of the elusive, subatomic particles that may answer fundamental questions about the nature of matter. UW–Madison is collaborating on PROSPECT, and the U.S. Department of Energy recently awarded the project \$3 million.

The *Wisconsin Law Journal* has honored **Amanda Riek '08, JD'11** as one of its 2016 Women in the Law. She's a public defender in the Sauk County Public Defender's Office and a board of visitors member for the UW–Madison Department of Psychology, which she credits — along with her mentor, Professor **Janet Hyde** — with “instilling in me that women can do anything they set their mind to and that we should be fearless and courageous as professionals.”

Meteorologist **Dmitry Smirnov MS'09, PhD'11** is contributing his weather-modeling expertise to the National Emergency Management Association's Extreme Weather Adaptation work group. It's developing better practices for emergency-management professionals who must prepare for and mitigate increasingly severe and frequent natural disasters. Smirnov works for professional services firm Dewberry in its Denver office.

In June, **Vince Trovato '09** became presidential candidate Donald Trump's first paid

campaign staff member in Wisconsin. Trovato, of Waukesha, interned for Wisconsin governor Scott Walker when Walker was in the state assembly, and he's also served as a state assembly policy adviser, on the Waukesha County Republican Party executive board, and on the Republican Assembly Campaign Committee.

## 10s

Badger hockey fans know **Blake Geoffrion '10** as the program's first Hobey Baker Award winner in 2010, but they may not know that he hosts the annual Blake Geoffrion Hockey Classic exhibition match to benefit the UW Health Burn Center. The June 2016 event, held at the campus's LaBahn Arena, raised more than \$50,000. It involved current and former players — especially those from the 2006 team during the 10th-anniversary year of its national championship victory, the sixth and most recent NCAA title in UW history.

For his body of work on LGBT refugees in Kenya, the New York Foundation for the Arts has awarded visual journalist **Jake Naughton '10** of Brooklyn, New York, a highly competitive Artists' Fellowship in Photography and an unrestricted cash grant. He's a frequent contributor to the *New York Times* and other national media and a founding member of the creative cooperative Black Box who “loves ... making storytelling that transcends boundaries and demands that people ... deeply engage with the crazy world in which we live.”

**Xiaohoa Michelle Ching '12** of San Leandro, California, was a Teach For America (TFA) educator who has now earned a 2016 Social Innovation Award in TFA's competition for seed funding and professional coaching to spark bold educational innovations. Ching is the founder and CEO of Literator, an app that allows teachers to

**“We should be fearless and courageous as professionals.”**

**Amanda Riek '08, JD'11**

**“I would learn to trust myself — my judgment, my intellect, my good heart.”**

**Anne Corlett '82**

**DEATH NOTICES**  
Brief death notices for Wisconsin Alumni Association (WAA) members and friends appear in *Badger Insider*, WAA's thrice-a-year magazine for its members. You may also submit full-length obituaries for online posting at [uwalumni.com/go/alumninotes](http://uwalumni.com/go/alumninotes).

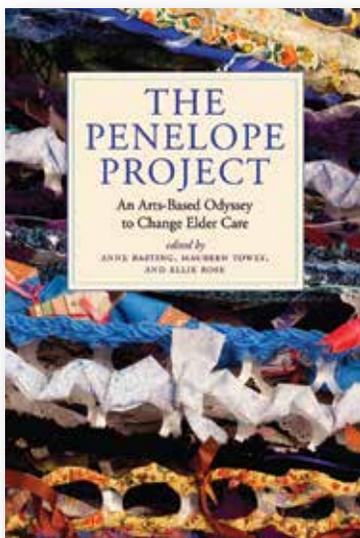
collect, analyze, and be guided by data on students' reading performance. She was also in the inaugural cohort of Leadership for Educational Equity's New American Leadership Program.

Former Badger basketball player **Ashley Thomas '12** planned to play in the pros, but she found her calling instead as the new executive director of Milwaukee's Hope Street Ministry. The nondominational Christian organization houses people who are recovering from addiction, mental illness, and urban trauma, and its staff and volunteers provide counseling, prayer groups, tutoring, wellness resources, and job training. Thomas is also overseeing a retrofit to a nearby building that will become a community center.

**Tim Berto MS'16** is one of 34 early-career high school math and science teachers who have been chosen as Knowles Science Teaching Foundation teaching fellows. This honor includes five-year access to summer stipends, professional-development funds, grants for materials, mentoring, and peer support. Berto worked at UW–Madison in a chemistry lab and as an undergrad chemistry instructor and is now in his first year of teaching chemistry at Middleton [Wisconsin] High School.

**Michael Braun '16** has gone to New York City with his freshly minted degree to roll out the start-up he's founded, Avant Debut. He describes it as “an online marketplace for digital and physical art and media that seeks to empower emerging creators and eliminate the barrier to entry in owning and appreciating ... art.” We're excited to see what happens next as Braun adds works from creators worldwide to [avantdebut.com](http://avantdebut.com).

*Class Notes/Diversions* editor Paula Wagner Apfelbach '83 checked out of popular culture around 1990, which partly explains her poor performance on the *Flaming-Os* trivia team.



## BETTER AGING THROUGH ART

Changing our perceptions of aging is at the heart of *The Penelope Project: An Arts-Based Odyssey to Change Elder Care*, and it's in the heart of coeditor

**Anne Basting MA'90**. She's earned a 2016 MacArthur "genius" grant for her work as an author, playwright, founder and president of TimeSlips Creative Storytelling, UW–Milwaukee theater professor, and founder and coordinator of Creative Trust Milwaukee. Each MacArthur fellow receives a no-strings-attached grant of \$625,000.



The book follows theater professionals, university students, volunteers, and experts in education, long-term care, and arts practice who joined residents, family members, and staff at Wauwatosa, Wisconsin's Luther Manor continuum-of-care facility. There they embarked on a challenging but transformative two-year journey to examine Homer's *The Odyssey* from the perspective of Penelope, who waited for 20 years for her husband, Odysseus, to return from the Trojan War. The participants then combined theater, movement, poetry, music, and visual arts to stage Basting's play *Finding Penelope* throughout Luther Manor. In engaging all, the production transcended the conventional limits of age, physical ability, cognitive status, and a regulated setting.

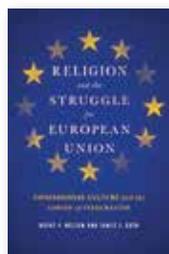
The Penelope Project boldly seeks to make late life and waiting — as Penelope waited — a time of learning and creativity. This book is its practical, step-by-step guide and a lively, candid, inspiring, and poignant project assessment that shows the essential roles that inclusion and the arts play in our well-being as we age.

A 371 Productions documentary film called *Penelope* follows *Finding Penelope* from planning to performance. Basting discussed it on Wisconsin Public Television's *Director's Cut* in June 2014.

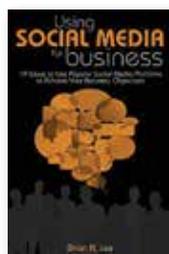
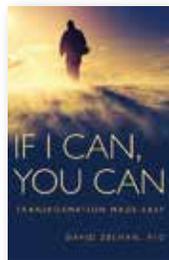
**Book lovers**, please visit [goodreads.com/wisalumni](http://goodreads.com/wisalumni) — UW–Madison's section of the book website Goodreads — for so much more about books by Badger alumni and faculty.



**Bob Boone '63's** humorous, tender short-story collections *Forest High* and *Back to Forest High* are, says one reviewer, "simply told, hard-edged tales from the lives of educators and their students. These rich, multifaceted stories ring true with details gleaned over the course of a full life." The Glencoe, Illinois, author began teaching in 1964 and has written numerous texts and creative-writing books.



In *Religion and the Struggle for European Union: Confessional Culture and the Limits of Integration*, **Brent Nelsen MA'84, PhD'89** and **James Guth '66** use data to chronicle the Reformation-rooted cultural divide that has shaped European attitudes about integration and identity — and that now threatens the EU's security and prosperity. The coauthors, both political science professors at Furman University in Greenville, South Carolina, offer the EU a pragmatic way forward.



"True success and happiness belong to those who master the art of creating their lives rather than getting their better at changing their circumstances," says **David Zelman MA'72, PhD'76**, the founder and CEO of the Dallas-based Transitions Institute. His

book, *If I Can, You Can: Transformation Made Easy*, leads readers to generate their own satisfying futures.

In the comprehensive *Gender, Race, and Ethnicity in the Workplace: Emerging Issues and Enduring Challenges*, 30-plus experts offer new management and mentoring approaches. **Margaret Foege Nelsen MBA'81, Karsten MBA'81**, a UW–Platteville professor of human resource management, edited the work.

Coffee has become an art form, and coffee houses are its galleries. *Coffee Culture: Hot Coffee + Cool Spaces* is **Robert Schneider '81, MS'85's** richly photographed ode to 33 uncommonly beautiful shops nationwide that brew great java and foster interaction. The Minnetonka, Minnesota, author visited each one to capture its integrity and soul.

Social media are now essential in the marketing mixes of businesses, member-based associations, and nonprofits — but which platforms should they use? **Brian Lee '02** of Fitchburg, Wisconsin, offers his take in *Using Social Media for Business: 19 Ways to Use Popular Social Media Platforms to Achieve Your Business Objectives*, Second Edition.

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## Destination *Dotty Dumpling's Dowry*



ANDY MANIS (4)



**In 1969**, Dotty Dumpling's Dowry began as an eclectic jewelry store in Des Moines. The establishment didn't begin serving hamburgers until founder Jeff Stanley moved operations to Madison in 1974 and opened up on Monroe Street.



**The memorabilia** collection keeps growing at Dotty's current spot on North Frances, but owner Rachael Stanley-Zerwer's favorite remains a metal sculpture of a motorcycle and its driver that her father acquired for the Iowa shop.

**The Melting Pot** — topped with cheddar, Swiss, and provolone cheeses; smoked bacon; and Dotty's signature garlic sauce — is the most popular of the restaurant's 15 original hamburgers.



**Twenty-three** basketballs from the Field House are mounted on an oak beam above Dotty's dining room, representing Badger basketball wins by the undefeated 1913–14 squad and the 1940–41 national championship team.



# Helping Others — Now and Forever

**Buck Parker** came home from Vietnam and created a paradise on an old farm in central Wisconsin.

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