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LEHIGH

BULLETIN

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WHEN LEHIGH BEAT DUKE

How teamwork, togetherness and selflessness helped the 2011-2012 Mountain Hawks pull one of the greatest upsets in the history of March Madness.

STRIKE UP THE BAND

The Marching 97 will have the honor of marching in the 2018 New Year's Day Parade in London, England. Former Lord Mayor Catherine Longworth, right, of the City of Westminster visited campus in November to officially extend the invitation. Photo by Christa Neu





A Team Worth Celebrating

"Sports is human life in microcosm." —Howard Cosell

As ANYONE WHO HAS ever been foolish enough to fall in love with a team knows, there is a fundamental truth about sports that, sometimes, non-sports fans simply can't quite understand.

That truth is this: While it may be true to say sports are simply about sports, it's also true that sports are about *so much more than just sports*.

At their best, sports can—and, yes, I really believe this—be about nothing less than life itself. Sports can be about community and togetherness. They can be about sacrifice and resilience. They can be about tremendous triumph or crushing defeat. They can break our hearts, and they often do, but they are also unique in their ability to deliver almost impossible thrills—not to mention moments, memories and lessons that can last a lifetime.

In this issue of the *Lehigh Bulletin*, we'll offer only further proof of that.

Five years ago, a scrappy, confident group of Lehigh Mountain Hawks stunned the college basketball world by knocking off the mighty Duke Blue Devils in the NCAA Men's Basketball Tournament, more commonly known as "March Madness." The thrilling 75-70 triumph was not the first upset in the grand history of that legendary tournament, and it won't be the last. But here at Lehigh, that game immediately became, and still remains, one of the greatest moments in the history of not only Lehigh Athletics, but of Lehigh University.

And yes, I assure you, the reasons go far beyond basketball itself.

In our cover story for this special issue of the *Bulletin*, Mary Ellen Alu and I tell the story not just of that Lehigh team's amazing win over the Blue Devils, but also the focused journey those players and coaches undertook, together, to achieve the unthinkable. Their success, as you'll read, was no accident; it came about precisely because of a shared commitment to be great—a commitment that was as much a pledge to each other as it was to themselves. Indeed, talk to those players today and they'll tell you, almost to a man, that never were they on a team that cared for each other, and supported each other, as much as the 2011-2012 Mountain Hawks.

It was a pleasure working on this story, and I sincerely hope that you, our readers, will enjoy reading it as much as we enjoyed putting it together. Thank you, as always, for reading.

And from us to you, we proudly proclaim: Go Lehigh!

Sincerely, Tim Hyland, Editor



Share your thoughts—your kudos, your criticisms, your questions—by sending your Letters to the Editor. They can be sent via snail mail to the address at right, or via email to <u>tih313@lehigh.edu</u>.

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LEHIGH ALUMNI BULLETIN Vol. 103, No. 1, Spring 2017

Published three times a year by the Lehigh University Communications and Public Affairs Office, in coop-

eration with the Lehigh University

FSC MIX FSC Paper from responsible sources

Alumni Association Inc

LEHIGH

18 Why the Rings Say 'Family'

WHEN LEHIGH BEAT DUKE: AN ORAL HISTORY

On March 16, 2012, the No. 15-seeded Lehigh Mountain Hawks stunned mighty No. 2 Duke in the NCAA Men's Basketball Tournament. It was a victory that put Lehigh basketball on the map and helped launch the career of star guard C.J. McCollum. But it was no miracle, and to hear the players say it, it was no upset, either. *By Tim Hyland and Mary Ellen Alu*

34 A Prescription for Peace

A new book argues that successful peacemaking between longstanding adversaries is almost always imposed by states from the top down before it is sustained by societies. *By Kurt Pfitzer*



DEPARTMENTS

- 2 FROM THE EDITOR
- 4 FROM THE PRESIDENT

ON CAMPUS

- 5 A Welcome Addition
- 6 A Lesson on Nonviolence
- 7 The Rivalry Earns a Marker
- 8 UN Briefing Focuses on Education
- 9 From Lehigh to Silicon Valley
- 10 DESIGN SHOWCASE: Exploring Creativity

RESEARCH

- 11 A Window to the Future
- 11 Thermal Evolution Award
- 12 Illuminating the Circuitry of the Brain
- 13 American Geophysical Award

CULTURE

- 14 The Women of Bethlehem Steel
- 15 LU Philharmonic Performs Mahler's Sixth

ATHLETICS

- 16 Football Adds 15 with Latest Recruiting Class
- 16 A Surprising Star in the Making

NOTES

- 41 LEHIGH DISPATCH
- 73 IN REMEMBRANCE
- 80 MISCELLANY: LUcy, Canine Officer

ALUMNI PROFILES

- 39 Khalil Uqdah '10
- 40 Joseph J. Roy '09
- 40 Lea Giménez '12 Ph.D.



ON THE COVER: Five years ago, the Lehigh Mountain Hawks knocked off the mighty Duke Blue Devils in the NCAA Men's Basketball Tournament. Illustration by Danny Allison



A Lehigh@NasdaqCenter launch party was held in January at the Nasdaq Entrepreneurial Center in downtown San Francisco. At left are students from The Baker Institute's flagship LehighSilicon-Valley program. Below, President John Simon and Ed Konjoyan of Majestic Realty join in the celebration.



A Westward Push

LEHIGH'S POINTS OF PRIDE are almost too numerous to count. We boast one of the most beautiful college campuses in the world. We are steeped in history, with beloved traditions that stretch back more than a century. We cheer on teams of true student-athletes—talented, competitive individuals who make us proud both on the field and off. We have a vast, passionate and deeply engaged alumni base, a reputation that places us among the world's finest institutions of higher learning, and a deep well of potential that we will leverage to propel this university to even greater heights.

But most importantly, we have a community of exceptional people and exceptional minds. They remain our greatest asset.

Each day, I have the privilege and honor of getting to work alongside the brilliant individuals who call this university home. In our faculty and our staff, our students and our alumni, I find not only an unwavering support system, but also a constant source of inspiration. Lehigh's people do amazing things, forward revolutionary ideas and take on daunting challenges—not just here on campus, but in places the world over.

Early this year, I traveled to San Francisco for the official launch of the new Lehigh@NasdaqCenter, a partnership between Lehigh and the Nasdaq Entrepreneurial Center that will provide our students, faculty and alumni with invaluable opportunities to engage directly with the vibrant and ever-expanding startup community in Silicon Valley. The launch comes at a time when Lehigh is expanding its presence more generally on the West Coast, and after spending a week speaking with our growing alumni base there, it's clear to me that this westward push is well worth the effort. The people I met are the biggest reason why.

So many times during my trip, I was struck by the true and undeniable passion our West Coast alumni had for their work—and was proud to hear that so many of them credit Lehigh with helping them get to where they are today. These are bright, ambitious, driven people, working in one of the most hyper-competitive markets in the world. Every day, they're doing their part to spread the word about our great university. So too, of course, are our students. In late January, a fearless group of Lehigh undergraduates traveled to California to take part in the SpaceX Hyperloop Pod Competition, a worldwide contest that challenged participants to build a functioning prototype for Elon Musk's futuristic transportation system. In all, more than 1,000 teams would enter, but by the time the finals were held, just 29 teams remained. Ours was among them—the only undergraduate team to advance that far—and they did us proud.

This was a student-conceived, student-led, student-powered project—one that saw our students leap at the opportunity to be part of a potentially revolutionary development. The logistics were daunting, the challenges great, and the doubters many. But these ambitious students forged ahead anyway, and in the end, their efforts provided lessons and inspiration for us all.

Like those students, we should pursue our passions fearlessly. Like those students, we should serve as active participants in the work of building a better future. And like those students, we should never let the doubts of others cloud our belief in ourselves.

We as individuals, and we as an institution, are capable of greatness. Together, we should push each other and ourselves to pursue precisely that.

Sincerely, John D. Simon, President



Follow President Simon on Instagram @**lehighpressimon**

ON CAMPUS

NEWS FROM LEHIGH

A Welcome Addition

THE OAK TREES STOOD like sentinels on South Mountain long before Lehigh was Lehigh. They witnessed the birth of the university and thrived on Packer Campus for nearly 150 years—until the ferocious winds of Hurricane Sandy toppled them in October 2012.

Fortunately, those mighty oaks retain their majesty today, having been given new life as an enormous reception desk in the Alumni Memorial Building. The desk stands nearly 11 feet wide, 10 feet long and 45 inches high at its tallest point. Designed and built by Lehigh students, it serves as a physical representation of the university's industrious and collaborative spirit.

"It has this rich Lehigh history literally ingrained in the wood," says Brian Slocum '97, managing director of the Wilbur Powerhouse and Design Labs and director of Lehigh's Additive Manufacturing Lab. Slocum salvaged the oak and had it milled and dried. He later recruited wood shop manager Mike Moore '12 and some students to build several conference tables. Then, in September 2015, they took on an even larger project for Lehigh Admissions: a new reception desk for the atrium of Alumni Memorial that provides a more centralized welcome experience for visitors.

Slocum and Moore assembled a team of students— Elana Abrams '19, Zach Caruso '16, John Flory '19, Kathryn (Katie) Hooven '16, Deanna Kocher '17, John Obiedzinski '17, Evan Simon '19 and Burlan (B.A.) Sizemore '18—and got started. Using the Lehigh oak to construct a desk that would be seen by countless visitors to the university, says Slocum, elevated the project for all involved.

"We talked about the experience of potential students coming to campus. We talked about being able to look across at those glass doors [in the Alumni Memorial Building] and being amazed at the campus that's on the other side," says Slocum.

Once a final design was selected, the team fabricated the sizable desk in Lehigh's wood shop. They created individual tool paths and CNC routed each of the desk's 16 exterior and 26 interior panels as well as its black walnut detail. The team also hand-sanded the detail work and built the desk's internal frame, bending and welding more than 250 feet of powder-coated steel box tube in the metal shop at Wilbur Powerhouse.

Moore describes the process as quintessential Lehigh.

"We were there as guides and mentors, but to me it seemed to be much closer to the original idea of the university—students working and faculty members working, but working together toward a common goal," he says.—*Kelly Hochbein*

COMMENCEMENT 2017

Financial expert and accomplished journalist Stephanie Ruhle '97 will deliver the commencement address on May 22 to Lehigh's Class of 2017.

Ruhle is an anchor at MS-NBC and contributor to NBC News, where she's credited for her deft handling of breaking news, hard-hitting interviews and insightful analysis. Previously, she was an anchor and managing editor for Bloomberg Television and editor-at-large for Bloomberg News.

"In 1997, I was sitting at commencement surrounded by those who would become my lifelong friends and extremely proud of the foundation Lehigh helped me build," Ruhle said. "But I never expected the honor of returning 20 years later to



send off an esteemed group of next-generation leaders. I am truly honored to be in such great company."

President John Simon said Ruhle "represents the best in her field, and I'm sure that her informed insights and words of advice to our graduates will be both thought-provoking and inspiring. We look forward to welcoming her back."

Ruhle graduated from Lehigh with a bachelor's in international business. She used her time at Lehigh to study abroad in Kenya, Guatemala and Italy.

A New Jersey native, she resides in New York City with her husband, Andy Hubbard, and their three children.

A LESSON ON NONVIOLENCE

Drawing from lessons he learned from his grandfather and stories of their time together, peace activist Arun Gandhi, grandson of Mohandas "Mahatma" Gandhi, offered his thoughts on channeling the energy of anger, the roles of passive and active violence, and the true meaning of peace during his delivery of the 2017 Kenner Lecture on Cultural Understanding and Tolerance in February. "We are interdependent, interconnected and interrelated, and we have to respect that," Gandhi told the crowd of nearly 1,000.





The Rivalry Earns a Historical Marker

A STATE HISTORICAL MARKER now stands as testament to the significance of the Lehigh-Lafayette rivalry—the most-played rivalry in college football.

The blue marker was unveiled with much fanfare in November at the site of the former Taylor Stadium, where the Mountain Hawks played from 1914 to 1987 before moving to Goodman Stadium.

Given that it was Spirit Week, the Marching 97 heralded the dedication, joined by President John Simon, state lawmakers Lisa Boscola, D-Lehigh/Northampton; Bob Freeman, D-Northampton, and Steve Samuelson, D-Northampton and other dignitaries on the south side of the Rauch Business Center.

In welcoming guests, Joe Sterrett, the Murray H. Goodman Dean of Athletics at Lehigh, noted "the dedication of a historic marker on a historic site the day before a historic game."

The next day, the Mountain Hawks and Leopards met for the 152nd time, and Lehigh won, 45-21.

Bill Lewis, a member of the Pennsylvania Historical and Museum Commission and chairman of its historical marker selection committee, told those gathered for the dedication that the state's historical markers are not easy to secure. Out of the 100 or so nominations made each year, he said, only about a dozen are selected.

"What are marked are things that have statewide, national and international significance," Lewis said. "And what is more iconic to the history of our Commonwealth than a rivalry between two of our finest institutions of higher learning?"

John Pettegrew, associate professor of history at Lehigh, talked about the significance of the school spirit that The Rivalry stirs up. "That joining in of the student body and really them being a part of The Rivalry and the game is just tantamount to The Rivalry itself," he said.

"Yes, we need to have the game played, but I think far more important than... who wins or loses, it is the surrounding traditions, the pomp and circumstance, the music, the energy, the school spirit that really solidify a rivalry such as Lehigh-Layfayette.

"There's a democratic quality to it," he said. "All students belong, and the players are their representatives."—*Mary Ellen Alu*



NEW DIVERSITY OFFICER

Dr. Donald A. Outing, current chief diversity officer and director of the Office of Diversity, Inclusion and Equal Opportunity for the U.S. Military Academy at West Point, has been named Lehigh's first Vice President for Equity and Community. He is also an associate professor in the academy's Department of Mathematical Sciences.

The Vice President for Equity and Community position at Lehigh was created to lead institutional efforts to advance its work on diversity, equity and inclusion. Outing will report directly to President John Simon and will be the senior administrator responsible for developing and implementing a comprehensive plan to enhance and continue to build on the university's efforts.

Responsibilities will include developing and implementing initiatives through strategic planning, training, education and research, community relations, policy development and communications. In his inaugural role, Outing will coordinate with the administration, deans, department heads, trustees, and a variety of groups and individuals already engaged with diversity and inclusion efforts on campus.

"This is an exciting step in Lehigh's efforts to foster a campus culture of equitable community, and one that I'm certain will have an immediate positive impact," Simon said.

FIGURE 1

The first

football game between Lehigh and Lafayette was in 1884, one year after standardized football rules were established.

ETHICS AND ACTIVISM:

Barry Rosenstein '81 spoke to students, alumni, faculty and staff on "Ethics and Shareholder Activism" as part of the Speaker Series on Ethics.

"Anyone can learn to practice ethical decision-making. It is never too late to start," said Rosenstein in November.

As managing partner and founder of JANA Partners LLC, an event-driven manager that invests in companies undergoing, or expecting to undergo, change, Rosenstein has extensive experience in ethically navigating within the business community. He and his team practice a principled shareholder activism process to improve a public company overall through investment, increasing the value of company stock and improving operational performance.

"Activism is like most other professions, except perhaps reality TV, in that you can make it ethical," he said. "That is why I, my partners and my team try to do it every day."

Rosenstein focused on key points: develop trust in relationships, treat people with respect, be fair in deal-making. He said "acts of genuine human decency" separate professionals in the trade.

The series is made possible by the Endowed Fund for the **Teaching of Ethical Decision** Making established by members of the Class of 1961.





UN Briefing Focuses on Education

AN EFFECTIVE EDUCATION REQUIRES more than a top-down approach, two Lehigh

education professors said at a United Nations panel discussion in November titled

"NGO Partners and Resources: A Global Grassroots Approach to Education for All."

education, moderated the panel and shared his work in international education,

where he strives to provide opportunities for non-governmental organizations

al education, discussed a project she worked on in Germany that supports students

It was the first time the College of Education led a briefing at the U.N.

(NGOs) to engage at the grassroots level, most recently in Rwanda.

have in achieving the goals of the Education for All movement.

of diverse backgrounds, including refugees.

Alexander W. Wiseman, associate professor of comparative and international

Lisa Damaschke-Deitrick, professor of practice of comparative and internation-

Wiseman addressed the challenges that NGOs and education policymakers

Education for All is a global

to provide quality basic education to all children and adults. In all, 164 governments have pledged

to achieve that goal.

Launched in 2000, Education for All is a U.N. initiative that seeks to provide quality education to children and adults throughout the world by marshaling the efforts of governments, development agencies and the private sector.

"Providing basic education for all is an ambitious goal," Wiseman said. "And the challenges of reaching this goal are nowhere more evident than in the historically disenfranchised groups in every nation worldwide." A major contributing factor, Wiseman said, is that many organizations take top-

down approaches to implementing educational access, equity and achievement. Wiseman feels that some of these approaches have relied on politically driven coalitions that, while still important to global educational change, aren't as effective in 21st century education movements.

"The Agahozo-Shalom Youth Village in Rwanda provides formal education to those most in need in post-genocide Rwanda," Wiseman said, referring to the mass killings of Tutsi people in the African nation in 1994, "but the Youth Village provides so much more than a school education." The Youth Village also creates a safe space and sense of family for Rwandan youth.

Damaschke-Deitrick discussed a project in Germany that uses a grassroots approach and seeks to bring education to students of diverse backgrounds who dropped out of school. She said top-down approaches from the international level are not sustainable if they don't look at the local context.-Henry Greenburg '17



From Lehigh to Silicon Valley

Ann Lewnes '83 was the featured lecturer for the Donald M. Gruhn '49 Distinguished Finance Speaker Series



OHN KISH IV

SILICON RUSH

Lewnes shared key factors to success—taking risks, thinking creatively, delivering results and working well with people. ANN LEWNES '83 IS NOT AFRAID to take risks. After graduating from Lehigh with a dual degree in international relations and journalism, Lewnes packed up her Honda Civic and drove the nearly 3,000 miles to Silicon Valley.

"It was a huge risk to leave my family, my friends and every single thing I knew," said Lewnes, featured lecturer in the Donald M. Gruhn '49 Distinguished Finance Speaker Series Nov. 15. "I thought I would try it for a year, and that was 31 years ago."

After two weeks in Sunnyvale, California, Lewnes went to the Palo Alto Women's Resource Center to look through a binder that listed available jobs. She found a job at Intel, she said, where she helped build global demand for the brand among customers, business professionals and key computer channels. She was part of the team that managed the highly successful "Intel Inside" program and oversaw groundbreaking campaigns.

From her first position at Intel, Lewnes grew professionally, becoming vice president of sales and marketing and director of partner marketing.

Lewnes shared four key factors to success—taking risks, thinking creatively, delivering results and working well with people. She provided other advice: advocate for yourself, learn from mentors, recognize what you need to do to advance and know when it's time to make a change.

Those experiences helped Lewnes when she transitioned to Adobe in 2006 as executive vice president and chief marketing officer. Lewnes oversees the company's corporate brand, communications and integrated marketing efforts worldwide. She has managed the expansion of Adobe's brand and marketing initiatives as the company has become a leader in cloudbased solutions for digital marketing, document services and creative solutions. She also oversees Adobe's internal communications and corporate responsibility efforts.

Lewnes' talk, "From Lehigh to Silicon Valley: Marketing in a Digital Age," was in Baker Hall in the Zoellner Arts Center.

Lewnes told attendees that Adobe took a risk seven years ago. Revenue was plateauing, and the company needed to make a dramatic shift to drive up revenue. At the same time, she said, Adobe entered into digital marketing. Adobe made the shift when it recognized the need for its customers to not only create compelling content, but to then measure the content's impact on the bottom line.

"Over the past 10 years Adobe has completely transformed," Lewnes said. "Whether you're streaming the next Lehigh-Lafayette game on your tablet, whether you're booking your next flight home on your app, or watching the next episode of *Stranger Things*, Adobe products are helping you do that."

The speaker series was established in 2008 by Donald M. Gruhn '49, formalizing his tradition of bringing speakers to the College of Business and Economics to address students on business topics.—*Margaret Burnett '17*

DESIGN SHOWCASE Exploring Creativity

Students in Lehigh's Product Design III class taught by Wesley Heiss, associate professor of art, architecture and design, were challenged to design products to be sold at the National Museum of Industrial History in South Bethlehem. The products, inspired by the museum, contain a sheet metal component, with an array of designs and prices. 4 Candy and Nut Dish

David Pulsifer '17, inspired by Otto's Internal Combustion Engine from the 1867 World's Fair, laser cut the dish from 18-gauge stainless steel. The product is sold as a flat object but bends into shape.



Claire Bian '17 added a "layer of joy" to stainless steel with a bug light reminiscent of a finished 3-D puzzle, a childhood memory.



Zachary Port '17 made bookmarks that feature cutouts of I beams, the museum logo, and gears.

RYAN HULVAT



Brandon Leaks '17 fashioned a music box from metal as well as wood.

Derek Knott '16 found inspiration in the silhouette of the Bethlehem Steel stacks.

Shelf

1

A Window to the Future

How CAN VIRTUAL REALITY experiences improve the writing fluency and academic achievement of special-needs students?

Researchers in the College of Education will explore applications as part of a proposed pilot project involving students at Lehigh-governed Centennial School, which serves children with autism and behavioral challenges.

Scott Garrigan, professor of practice of teaching, learning and technology, will lead the study, which would expose students to virtual reality—on the bottom of the sea—and assess whether the experiences improve or transform their learning, including their writing skills. Co-principal investigators will be Centennial lead teacher Sara Heintzelman and Centennial school psychologist Julie Fogt.

Lehigh's Center for Innovation in Teaching and Learning purchased two highend HTC Vive virtual reality systems, including one housed at the College of Education. Garrigan will use the system in the pilot project, but he also has been training students, faculty and community leaders in its use and testing its capabilities.

Ilena Key, assistant director of Library and Technology Services at Lehigh, said a second Vive system will be used in a Virtualization Sandbox on campus to allow for further exploration by students and faculty.

"This gives future educators and technology educators a window into what's coming," Garrigan said. "It helps them think about how something can be learned differently if you're in it compared to if you're reading about it or looking at it."

To experience the virtual reality, participants don headsets and goggles, which allow them to look around—and move around in—the virtual spaces. They can travel to places they've never been and immerse themselves in their own creations.

Two Centennial students are among the more than 100 people who have already come to COE to experience it. Garrigan said one student who usually has trouble expressing himself was so engaged he wrote a rich description of what he saw.

"This is powerful stuff," he said. "Does that work with every kid?"

The pilot study would begin to answer that question, taking students through two different experiences—four students in virtual reality and four on a video monitor. The students would write about their experiences, with researchers assessing their writing for richness of detail and other elements.—*Mary Ellen Alu*



CHRISTA NEU

THERMAL EVOLUTION

AWARD Peter Zeitler, the Iacocca Professor of Earth and Environmental Sciences, has received the Dodson Prize for career achievements in thermochronology—the study of the thermal evolution, or changes in temperature over time, of the regions of the Earth.

The prize is awarded by the International Standing Committee on Thermochronology for extraordinary contributions to the field or to the international community of thermochronologists.

Zeitler was cited for helping "to define the modern field of thermochronology" and for "seminal contributions" to three dating methodologies fission-track, argon-argon and uranium-thorium/helium developed or expanded in the 1980s.

He has spent four decades studying orogeny—the geological processes that cause the Earth's crust to form topographical features—in the Himalaya Mountains of Pakistan and Tibet and in the Hangay Mountains in Mongolia.

Zeitler's use of fission-track thermochronology, said the award citation, was highly effective "in reconstructing the cooling histories of metamorphic rocks in the northern Pakistan Himalayas. This work was technically challenging and innovative in ways that made it stand out from previous studies."

"THIS GIVES FUTURE EDUCATORS AND TECHNOLOGY EDUCATORS A WINDOW INTO WHAT'S COMING."

-SCOTT GARRIGAN

Illuminating the Circuitry of the Brain

Lehigh bioengineers are first to use OCT to examine neuron-to-neuron

communication in live tissue

SCIENCE HAS PROVIDED A SOLID understanding of the anatomy of the brain, but there is still no reliable way to examine the neuron-to-neuron communication, which is critical to understanding the correlation between brain structure and brain function.

Chao Zhou, assistant professor of electrical and computerengineering, likens current brain-mapping techniques to a Global Positioning System (GPS) that can help a user locate a city, but cannot offer a street-level view. These techniques allow researchers to observe layers of the brain and understand how different parts relate to each other, but they cannot examine the activity of a single neuron (nerve cell) or network of neurons in live tissue. There is no "street-level" map of a living brain.

Without such a map, said Zhou, medicine remains in the dark about the most effective ways to treat, prevent and cure brain disorders such as Alzheimer's, schizophrenia, autism, epilepsy and traumatic brain injury.

Former President Barack Obama's BRAIN (Brain Research through Advancing Innovative Neurotechnologies) Initiative aimed to fast-track the search for enlightenment. Announced in 2013, BRAIN supported the development and application of innovative technologies that can create a dynamic understanding of brain function and help uncover the mysteries of brain disorders.

One important step in achieving the initiative's goals was the development of optical techniques sensitive enough to image at the level of single neurons and fast enough to image live tissue.

Most current neural recording techniques use electrodes or require neurons to be labeled with a genetic or chemical probe in order to view neuronal action potential (the sending of electricity from one neuron to another). These methods have their downsides, said Yevgeny Berdichevsky, assistant professor of electrical and computer engineering and principal investigator in the Neural Engineering Lab. Berdichevsky and Zhou are both core faculty members in Lehigh's bioengineering program.

"While effective, it is not clear that electrodes are able to pick up activity in every neuron—they are also quite invasive," said Berdichevsky. "A marker introduced

chemically has the potential to be toxic. It also might be too slow to pick up all the action potentials. Brain imaging cannot currently be done genetically in humans due to safety concerns."

To tackle this 21st century challenge,

Zhou and Berdichevsky have joined forces to explore the use of a noninvasive, ultrahigh-speed biomedical imaging technology known as space-division multiplexing optical coherence tomography (SDM-OCT). The technique could potentially map the brain using light—and it does not require that neurons be labeled.

"BRAIN IMAGING CANNOT CURRENTLY BE DONE GENETICALLY IN HUMANS DUE TO SAFETY CONCERNS."

-YEVGENY BERDICHEVSKY

Originally developed for use in ophthalmology, optical coherence tomography (OCT) works by capturing light as it reflects off the surface of living tissue. According to Zhou, more than 30 million people worldwide per year have their eyes examined using OCT, a noninvasive test that uses light waves to take cross-section images of the retina.

Zhou is pioneering a key improvement to OCT that will enable a faster, more sen-



sitive exam to detect eye diseases such as macular degeneration and glaucoma. His patent-approved diagnostic instrument uses space-division multiplexing to achieve imaging at 10 times the speed of current OCT imaging.

VIABLE NEURONS

The National Institutes of Health has awarded Zhou and Berdichevsky a grant to explore the adaptation of OCT to achieve large-scale imaging of neural activity at the single cell level—a potential game-changer in brain imaging.

When neurons fire action potentials, they undergo ultra-small changes in size and shape, and OCT should be able to detect these changes as differences in the reflected light patterns. If OCT is successful in living animals, it could produce label-free and depth-resolved images of activity from thousands of neurons with micron-scale spatial resolution and sub-millisecond temporal resolution.

In other words, SDM-OCT could provide that crucial "street-level" view of the brain that researchers need to advance understanding of brain function.

Zhou and Berdichevsky demonstrated the ability of OCT to provide parallel and synchronized imaging from hundreds of neurons simultaneously in a study they conducted of neuronal changes in 3-D hippocampal cultures as a result of epilepsy.

The technique has not been explored much as a way to detect neural activity, said Berdichevsky.

"Once we were successful at using the technique to analyze epileptic tissue, we began to think about how it could be used to pick up signals from networks of neurons—something no one has done before," he said.

SDM-OCT improves speed through parallel imaging and optical delay. To understand parallel imaging, consider how OCT is used in ophthalmology: A single laser beam moves back and forth over the eye. Parallel imaging splits that single beam into 4, 8 or 16 beams all imaging together.

"This is a lot like using multiple processors in a computer," said Zhou. "SDM-OCT has the power of 16 OCT machines working together, but is much less expensive than purchasing 16 machines."

The technique also employs optical delay between imaging channels.

"This allows the image to be mapped to different frequency bands—like tuning a radio," said Zhou. "The delay separates the images for the light to detect different optical frequencies at the same time."

Zhou and Berdichevsky plan to develop an integrated electrophysiology and ultrahigh-speed SDM-OCT imaging system to record fast intrinsic optical signals associated with neural activity. Validation studies will be performed *in vitro* in 2-D neural cultures and in 3-D organotypic brain cultures. Because each vertical cross-sectional OCT image will contain hundreds of neurons, intrinsic optical signals from thousands of neurons can be recorded simultaneously using SDM-OCT.

If successful, this label-free imaging technology could become a powerful platform to investigate the behavior of thousands of neurons in a network simultaneously, with the potential to significantly improve fundamental brain research.—*Lori Friedman*

Representative optical coherence microscopy images (an extension of OCT) obtained from brain cultures. Viable neurons are marked as red dots.

AMERICAN GEOPHYSICAL UNION AWARD Anne S.

Meltzer, a seismologist who studies the structure and evolution of Earth's crust and upper mantle, recently received the 2016 Ambassador Award and was made a fellow of the American Geophysical Union.

Meltzer, the Francis J. Trembley Chair in Earth and Environmental Sciences, was praised by the AGU for enabling "hundreds of researchers worldwide to excel scientifically and thousands of students and members of the public to be inspired by the Earth sciences."

The AGU said Meltzer played a critical role in the creation of EarthScope, a program that explores the four-dimensional structure of the North American continent. The AGU also cited Meltzer for helping develop USArray, a transportable array of seismic stations in the United States.

Meltzer, a former chair of the board of directors of the Independent Research Institutions for Seismology (IRIS),



has conducted research in Pakistan, Tibet, Mongolia, North and South America, and the Caribbean. She is a former dean of the College of Arts and Sciences.

"Science is first and foremost a human endeavor," Meltzer said, "and academic consortia like IRIS have demonstrated that working together, we can achieve remarkable scientific advances."

DIGITAL ARCHIVE The Women of Bethlehem Steel

WITH THE SUPPORT OF Lehigh's Mellon Digital Humanities Initiative, the voices of women who worked for Bethlehem Steel are being preserved for generations to come, using a new technology available at the university for the first time.

"Women of Bethlehem Steel," an online and digital archive, houses oral histories and photos of women who worked at Bethlehem Steel Corp. from the mid-20th century through the company's closure in 2003.

"This archive makes available to every member of our community an inspiring and still underappreciated chapter in our city's history," said Seth Moglen, associate professor of English and co-principal investigator. "These interviews reveal the extraordinary changes in the lives of women in our community, and throughout the United States, in the last third of the 20th century. The women interviewed for this project are pioneers. They proved that there was, in fact, no such thing as 'men's work' and 'women's work' and that women could perform as equals in every workplace in the United States once the barriers of discrimination had been overcome."

The project is a collaboration among Lehigh's South Side Initiative, its Library and Technology Services and the Steelworkers Archives. Lehigh spearheaded the initiative to add 10 oral histories to the 14 initially gathered by the Steelworkers Archives. The women talk about the work environment in a male-dominated industry, the dangers of the jobs in the plant and the struggles of being working mothers, said Julia Maserjian, digital scholarship manager at Lehigh's Center for Innovation in Teaching and Learning and the project's co-principal investigator.

The Mellon Digital Humanities Initiative made it possible to bring a new tool, the Oral History Metadata Synchronizer, to campus for the project. It provides enhanced search capabilities, time-correlated transcripts and an index that corresponds to exact moments within recordings, which are available as video and audio and are searchable by keyword.

The Mellon Digital Humanities Initiative is funded through a generous three-year grant from the Andrew W. Mellon Foundation. View the collection at: digital.lib.lehigh.edu/beyondsteel/ intro/collections.—*Amy White*





LU Philharmonic Performs Mahler's Sixth

GUSTAV MAHLER'S SIXTH SYMPHONY has been called "the Tragic Symphony," but the massive work was actually written during one of the happiest periods of the composer's life.

Mahler had been married in 1902, his first daughter was born later that year and his second daughter was born as he completed the Sixth Symphony in 1904. The tragedies that marked his final years did not begin until 1907, when his older daughter died, and he was fired as director of the Vienna Court Opera and diagnosed with what proved to be a fatal heart ailment.

The Lehigh University Philharmonic performed Mahler's Sixth Symphony in two concerts in December in Baker Hall of the Zoellner Arts Center. The

four-movement work lasted approximately 90 minutes. The orchestra also performed the *Emperor Waltz* by Johann Strauss.

Eugene Albulescu, the orchestra's director, believes the Sixth Symphony is more a commentary on the times than a reflection of the events in Mahler's life.

"The Sixth Symphony is not so much autobiographical as it is a reading of the times and of music history," says Albulescu,



a is also the P. I. Illui

who is now in his 10th season as the orchestra's leader and who is also the R.J. Ulrich Endowed Chair in Orchestral Studies at Lehigh.

"This period of time represented the end of an era. The Sixth Symphony was the last great Romantic symphony, and it was the crowning of the Viennese tradition; it embodied traditions starting with Haydn, Mozart, Beethoven, Schubert, Brahms and Bruckner."

The Sixth Symphony "quotes" liberally from the works of earlier composers, says Albulescu, incorporating well-known motifs and melodies from Schubert, Liszt, Tchaikovsky and Rachmaninoff.

"To me," he says, "the Sixth Symphony feels like an end to a chapter that includes musings on music history and musical traditions. Mahler challenged those traditions and moved them further—possibly too fast for Viennese society of his time."

The Lehigh Philharmonic's performance of the Sixth Symphony featured 100 musicians on stage. The orchestra, which includes students, faculty, staff and community members, retained the services of several additional brass and woodwind players for the performance.

For the orchestra members, especially the student contingent that makes up 60 to 70 percent of the ensemble, Mahler's Sixth Symphony represents an "aspirational piece" that required musicians to practice their parts outside the three-hour weekly rehearsal, says Albulescu. In recent years, the orchestra has taken on similarly challenging masterworks, such as Tchaikovsky's Sixth Symphony and Shostakovich's Seventh "Leningrad" Symphony.

"The Lehigh Philharmonic is a wonderful group," says Albulescu. "They can do amazing things. The students are in increasing reverence and awe of the repertoire we do. Mahler was one of the most consequential artists in the history of classical music. You can't be nonchalant about this symphony. I'm very happy with how the orchestra is evolving."—*Kurt Pfitzer*

ATHLETICS



FOOTBALL ADDS 15 WITH LATEST RECRUITING

CLASS Lehigh head coach Andy Coen announced in early February that 15 student-athletes had signed National Letters of Intent to join the Mountain Hawks in the fall. The Class of 2021 includes student-athletes from six different states, plus Canada.

Eight of the signees will bolster the defensive side of the ball, with the class also featuring six offensive players and one specialist. The newcomers on defense include two linemen, two linebackers and four defensive backs.

"We really accomplished what we were looking for here," said Coen, the 2016 Patriot League Coach of the Year. "One of the reasons it's a smaller class is because we're going to have a couple of fifthyear guys: Zach Duffy, Brandon Short and Jimmy Mitchell will be coming back next fall. We recruit all positions, but we're always trying to find good defensive linemen and young guys in the secondary, and we were able to accomplish that."

The Mountain Hawks won their 11th Patriot League football championship in 2016 and were also recently recognized as the ECAC FCS Team of the Year. While offseason workouts are in progress, Lehigh will officially begin its spring practice segment on March 24.



A Surprising Star in the Making

An unexpected turn of events took Maura Henderson '19 into the world of collegiate running, with incredible results

BY MOST ANY MEASURE, Maura Henderson's budding running career at Lehigh has been a smashing, if entirely unexpected, success.

Henderson was Lehigh's undeniable breakout cross-country star last fall, earning First-Team All-Patriot League honors after a season that saw her lead the Mountain Hawk pack in five of six races and take first place overall at the Ted Owen Invitational. Only a sophomore, she was named the team's Athlete of the Year, and then continued to impress during winter track season, setting a new school record in the 5K during the Armory Invitational in early February.

Just a year into her Lehigh running career, the English major had already established herself as a star in the making, a potential future All-American and, perhaps, one of the finest distance runners in Lehigh history. But what makes her story just that much more remarkable is this: When she was recruited to Lehigh in the first place, it wasn't as a runner.



"I came here as a lacrosse player," she explains. (Her twin sister, Jane, plays lacrosse.) "I became very competitive in running late in high school, during my senior year, but by then I had already committed to playing lacrosse at Lehigh. It wasn't really something that I thought about, but at some point I realized I really missed it."

Fortunately for Henderson, all levels in Lehigh's athletic department—from administrators to coaches—were supportive of her interest in getting back onto the course and the track, even as she tried to balance running against her scholarship sport. After playing fall lacrosse her freshman year, and with the support of her coaches, she ran winter track. Her success was immediate, and by the time spring arrived, everyone was in agreement: Her future at Lehigh would be in running.

"I was just a lot happier with the running aspect of my athletics career," she says. "I had a really hard time leaving my lacrosse teammates. They're still my family. But everyone in athletics was amazing throughout the process, and they've been nothing but helpful throughout."

To say that Henderson has repaid their support would be an understatement. The Narberth, Pa., native made an impact for the Mountain Hawks in her first season of outdoor **STATS**

8:55.29 LEHIGH UNIVERSITY RECORD HOLDER

4x800 Meter Relay

17:43.50 CROSS-COUNTRY PERSONAL BEST

5K Ted Owen Invitational

track, earning four Top 10 finishes at the 2016 Patriot League Outdoor Championships, besting a field of 76 runners in the 1,500 meters at the Bison Outdoor Classic and finishing second in the 3,000-meter steeplechase at both the Lehigh-Lafayette dual meet and the Muhlenberg Spring Invitational.

By the time cross-country season hit, her confidence was soaring—and her times were dropping. In just the second race of her collegiate career, she took home first place—out of 156 runners total—at the 5K Ted Owen Invitational, with a time of 17:43.50. She would go on to place first among all Patriot League runners in the Paul Short Run Gold Race, first among all Lehigh runners at the Penn State Nationals and fifth overall at the Patriot League Championships, helping the Mountain Hawks to a second-place finish. She capped her season by placing 14th overall at the Mid-Atlantic Regional, earning her All-Region honors. Coach Debbie Utesch praised Henderson afterward, crediting her with running a "tremendous race."

There's no question that Henderson has taken to the sport, as her passion for it is obvious. Asked why she so connects with a sport that even she admits is nothing less than consistently "grueling," Henderson says that there's simply something about the cut-and-dried competitiveness in running that she finds thrilling. The goal of getting better, and faster, is something that continues to drive her, week in and week out.

"It's definitely grueling," she says. "There's nothing slow about it, and you're out there running fast for a really long time. But there's something about the sport that is just so rewarding. You get out of it what you put into it. It's kind of an analogy for life."

Moving forward, then, she says her goals are simple: to work as hard as possible, with the hope of achieving even greater things, bigger honors and more team success. It's a process, she says, that will certainly pay off on the track. And off it, as well.

"I honestly believe that running has changed my life," she says. "It's made me a better person."—*Tim Hyland*

RINGS SAY **FAME** WHEN LEHIGH BEAT DUKE: **AN ORAL HISTORY**



ON MARCH 16, 2012 THE NO. 15-SEEDED LEHIGH **MOUNTAIN HAWKS** STUNNED MIGHTY NO. 2 DUKE IN THE NCAA MEN'S BASKETBALL TOURNAMENT. IT WAS A VICTORY THAT PUT LEHIGH **BASKETBALL ON** THE MAP AND HELPED LAUNCH THE CAREER OF STAR GUARD C.J. MCCOLLUM. **BUT IT WAS NO** MIRACLE, AND TO HEAR THE PLAYERS SAY IT, IT WAS NO UPSET, EITHER.



STORY Tim Hyland and Mary Ellen Alu

> RESEARCH Justin Lafleur

ILLUSTRATIONS Danny Allison



ith the clock ticking down on what would quickly become one of the most famous upsets in the storied history of the NCAA Men's Basketball Tournament, with Lehigh fans deliriously cheering alongside giddy North Carolina fans in a raucous Greensboro Coliseum, with legendary Duke coach Mike Krzyzewski standing stunned and stone-faced on the sidelines, and with the entire world of college

basketball watching in living rooms and bars across America, that was the

message C.J. McCollum shared with his teammates: "Act like you've been here before!"

McCollum didn't want his teammates jumping around. He didn't want them tearing their jerseys off. He didn't want them to treat this win any differently than they had treated the wins that had come before it. The reason? Simple: He didn't want the rest of the country to think, even for a second, that this win was anything less than exactly what he expected.

No, McCollum was not awed at what was happening that day—what he had helped make happen with another signature performance: 30

points, six rebounds, six assists. He wasn't overwhelmed by the moment, either. While the nation may have been in shock—"Wait, Lehigh is beating Duke???"— McCollum certainly wasn't. And in truth, neither were his teammates.

Five years have passed since that incredible day in Greensboro, but even today, talk to any of those miracle Mountain Hawks and they'll tell you, almost to a man, that when they took the court that day against those Blue Devils, they believed they could win. They truly believed it.

That confidence had a lot to do with basketball, of course. It had a lot to do with favorable matchups, and with the fact that, in McCollum, it was Lehigh, not Duke,

ge was rooted in something deeper—a true connection that tied the team together in a way that, even today, makes some of the players emotional just talking about it. What seems undeniable is this: That group of individuals,

this: That group of individuals, that group of Mountain Hawks, was more than just a great team. They were also family.

that would have the best player on the

court. (McCollum is now a star shooting

belief in themselves, and in each other,

guard for the NBA's Portland Trail Blazers.) But it's also true that the Mountain Hawks'

> This, then, is the story behind the remarkable 2011-2012 Lehigh men's basketball team, and their signature win over those Blue Devils, as told by the coaches

who led them, the players who fought and clawed their way to new heights, the fans who watched in awe, and so many others who were touched in some way not only by that team's on-the-court achievements, but also by their passion for the sport, their pride in Lehigh, and perhaps most notably, their trust and commitment to one another, from the first day of the season to the last.

CHAPTER 1

'EVERYONE JUST BOUGHT IN'

BRETT REED, MURRAY H. GOODMAN '48 HEAD

COACH, MEN'S BASKETBALL: Let's get some context as to how this team developed. In the 2009-2010 season, we won a Patriot League championship. We had the most dominant performance in postseason play, winning every game by 15 points or more, on our way to play [top-seeded] Kansas in the NCAA Tournament. In that Kansas game, we lost, but we felt good about the way in which we were able to take a step as a program.

We advanced into the 2010-2011 season, and we had, in some respects, an underdeveloped team. There wasn't a lot of experience on the floor, except for C.J. He was a really talented player and that year finished in the top 10 in the country in scoring. But our team didn't once again compete for a championship.

The Mountain Hawks had made it to the Patriot League semifinals, but in a game with a controversial ending [an apparent last-second foul on McCollum wasn't called], lost to Bucknell, 66-64.

C.J. MCCOLLUM '13, GUARD: I got fouled, [the referees] didn't call it. [Bucknell's] Mike Muscala admitted to fouling me in... . We were just disappointed, because we felt we should have won back-to-back championships in the Patriot League, and we should have gone to the tournament two years in a row.

So the guys were a little discouraged, a little disappointed about it and kind of had that chip on their shoulders and that anger heading into the [2011-2012] season.

REED: That was a moment of pain that led to greater focus and determination, because the game could have been decided by a single possession. ... After a season, we always give our players some time off. And then we'll begin our spring workouts—skill instruction, weight training, everything that might take place. A unique thing happened that year. C.J. and (senior captain) Jordan Hamilton came into my office, initiated a meeting with me and basically said, "Coach, we're ready to start the preparation for next year. We're going to take ownership of the workouts we have in the weight room, when we have skill instruction, and we're getting shots up. We want to go at a higher intensity."

We had some players who really stepped up, like Jordan, and who took more of an active role in pushing the agenda of the team to excel at a higher level, and taking personal responsibility in that. We had some other players, such as John Adams and Justin Maneri, who took on a more mature approach and perspective to what would be their senior year.

RICH HAAS, ASSISTANT ATHLETIC DIRECTOR FOR SALES AND MARKETING: This team was very talented. ... They were hungry to get back to the NCAA Tournament.

HOLDEN GREINER '13, FORWARD: There was really something special about our group, and I'm not just talking about in terms of individual players. We all had talent. We all had skill. But when a mid-major program like ours does something special, it's because of the way the team is together...

I feel like Coach Reed kind of gave us the keys to the car that season. He had seniors and captains that he trusted, players with a lot of experience. C.J. and Gabe [Knutson]were fouryear starters, Mackey [McKnight] had a year as a starter under his belt. All of the seniors had a lot of experience. Coach trusted us, and believe me, that's tough for a coach to do.

GABE KNUTSON '13, FORWARD: Everyone just bought in. We knew what we could do together. A lot of times in college basketball, you have a bunch of guys who come in who are used to being the star of their team, and then their attitudes are the same in college—they expect to start and they expect to be the star. But the best part about that team was that we had a great sense of what we could do together. Everyone accepted their roles. Everyone bought into the roles they were assigned. We celebrated that. We celebrated the hustle plays and knew they were just as important as C.J. being out there hitting three-pointers. We all bought in and cared for each other.

REED: I had a meeting with C.J., and it was pretty candid. "C.J., you're talented enough to potentially lead the entire country in scoring. You can be featured here in such a way that you can do that, and if you decide to really push that agenda, there's a high likelihood that that could happen." But I asked him, "C.J., what's really more important to you? Leading the country in scoring or putting a little more trust in your teammates, passing the ball a little bit more, and our team performing at a higher level?"

If you know C.J., he selected pushing the team agenda, and everything that was part of that. One of the things C.J. had to do was develop more trust in his teammates. The pushback that he had was, "I need my teammates to work as hard as I'm working in the off-season to get in extra shots,

"I FEEL LIKE COACH REED KIND OF GAVE US THE KEYS TO THE CAR THAT SEASON."

-HOLDEN GREINER

"C.J. WAS JUST A FREAK—WE SAW HIM EVERY DAY IN PRACTICE— AND WE HAD OUR SIGHTS SET ON THE CHAMPIONSHIP."

-JUSTIN MANERI

because if I'm going to make the choice to toss them the basketball, I can only have trust in them if they've been in the gym with me." And, fortunately ... for the most part, people kind of adopted that and worked a little bit harder on their own individual skills.

B.J. BAILEY '13, GUARD/FORWARD: C.J. was definitely the most persistent about it, the most consistent about it, far more than anyone else on the team. He was always in the gym. If you went to Grace Hall, or the Taylor Gym, you could expect to see him in there getting up shots.

KNUTSON: There was a time where he called everyone in for a meeting, and it was a call to everyone to get out there and practice more and get up more shots. He said something like, "Look, I'm in here shooting after practice, and I'm not going to pass you the ball in crunch time unless you're out here shooting too. When we need to score, I don't need to pass you the ball. I can take that shot. I need to know you can make it."

We didn't take that as a selfish remark at all, though. It culturally changed the program, because we all wanted to improve together, and we all went out and improved our individual games together.

GREINER: C.J. and Gabe and I were all best friends from Day One at Lehigh. Literally from Day One were all very close, and the thing that people don't know about C.J. is that he's actually a really goofy kid. He loved to joke around. But when it came to hoops, it was all business. For C.J., yeah, basketball was a game, but it was also a means to an end. It was a way for him to be successful in life.

Freshman year, I'm this skinny, tall kid from Michigan. I walk into the gym, and we have a pickup game with the older guys. I walk on the court, and I'm nervous. I'm very nervous.

The guy I'm guarding is first-team all-league, he's a monster. But then C.J. walks in and he's like, "OK, who am I cooking today?" He was so confident from the moment he stepped on the court as a freshman. He's out there calling for the ball from a senior, telling them, "I was open, get me the ball." I'm thinking, "This kid is crazy." But it only took him a couple of games to earn a starting spot, and then he's out there averaging 19 points a game.

JUSTIN MANERI '12, CENTER: We knew we had something special. C.J. was just a freak—we saw him every day in practice—and we had our sights set on the championship. Nothing less was going to be acceptable.

JOE STERRETT, MURRAY H. GOODMAN DEAN OF

ATHLETICS: They worked hard to become better players, including those who possessed the most talent, and led by C.J. McCollum's remarkable work ethic, and a commitment by many to fulfilling important roles on the team, they became much better players than many thought they might be, as well as a very good team. ... Through a lot of focused work, they became a team that believed they could achieve distinction. And they did.

CHAPTER 2

THE SEASON BEGINS

MATT KERR, LEHIGH RADIO PLAY-BY-PLAY MAN:

Expectations were pretty high because of that core group of Gabe and C.J. and Holden, and then they had a couple seniors, Justin Maneri and John Adams and Jordan Hamilton. So it was a veteran group. I'm sure they were predicted to do well, but I'm not sure that anybody saw 27 wins or the way it was at the end.

THE ROSTER



REED: Our first game was against St. John's in New York, and we played a pretty competitive game. We ended up losing it right at the end. We had an unforced error, and we kind of were scratching at the door to maybe get a signature win. It would have really started us out. But it felt like we were really competitive in that game, and we kind of let one get away from a big moment.

MANERI: That St. John's game—that was the one we should have had. We were 10, maybe 20 points better than them. But it was the first game of the season, we had a couple guys foul out. But even though we lost, it kind of set the tone. St. John's was supposed to be this great team, but we knew we should have beaten them.

Lehigh lost the next game against a strong team in Iowa State, then won nine of the next 10 games, home and away. Just before Christmas, the Mountain Hawks took on a talented Michigan State team led by power forward Draymond Green, now a star with the Golden State Warriors, and legendary coach Tom Izzo. The Mountain Hawks went toe-to-toe with the eventual tournament No. 1-seed Spartans but lost another close one, 90-81.

REED: [Michign State was] a physical team, and we really had to figure out ways to kind of make up for our lack of size, or at least find a way collectively that we could hang tight enough to challenge against an excellent team. And for the most part, we did that.

GREINER: Those guys were the big guys where I'm from [Michigan] and that night I was being guarded by Draymond Green, and I scored 24 points on him. C.J. got in foul trouble, and I was the guy getting the ball for a while there. That game just gave me confidence. We ended up losing, but it gave me confidence, so when I'm coming off the bench [later that season] against Duke and Mason Plumlee, I've got no fear. I looked at it as, "I'm a player, he's a player, whatever it takes, I'm going to win." We learned we could play with those kinds of guys. A loss is only a loss if you don't learn anything from it, and those games really prepared us for the tournament.

MCCOLLUM: A loss is a loss, but you learn a lot from it just because you're playing against a high major team who's

ranked in the country with a lot of tradition. So for us it was just a measuring stick to see where you were at and see how much better you needed to get before you were ready for the NCAA Tournament.

REED: [After the game] Tom Izzo walked with me all the way back to the concourse, talking about our coverage and what we were trying to do, and how our team was playing, all really complimentary. ...There was a respect from an elite-level coach on what we were trying to do, and the way in which we were going about doing things, and he was really curious to some degree.

MANERI: The reason that game was important was the fact that we were actually running with them. It wasn't a game where we had to make a bunch of comebacks, there were no big swings. We were out there trading baskets with those guys, holding them and playing great defense. I think everyone felt the same—even though we had lost, it really motivated us.

KNUTSON: You never feel good coming out of a loss, but [because we competed with Michigan State], on Selection Sunday when Duke came up, we had a sense that we were going to be able to compete with them too. I don't think we were saying, "We're going to win," but we really knew we could compete with anybody. We just had a certain confidence about us.

After Michigan State, Lehigh entered Patriot League play, opening up with a tough loss to Holy Cross. In the games that followed, Lehigh pulled out league wins but also lost at home to archrival Bucknell. Coach Reed wanted a signature win, and sought it against highly regarded American in early February. He wouldn't get it—Lehigh blew an early 21-10 lead and lost.

REED: In my mind we're still not playing like an elite-level team. We had dropped a couple games. And I remember distinctly the game, at American. It had gotten to the point where we didn't have enough of a defensive identity and enough toughness. It was after that game that we had a change in our starting lineup and put John Adams in. He was kind of like a fireball, somebody who would just work so hard almost to a fever pitch.





That was almost symbolic but a catalyst for the change of our season. We were going make sure that it wasn't just about outscoring people. We were going to put a signature on our defense and put that mark on our team. This is the direction we needed to go.

KNUTSON: We always knew where we were supposed to be [on defense]. As painful as it can be to run through the same plays over and over again and keep drilling on all of the defensive set ups and all of the screens—that wasn't fun—we knew our defense. We knew game plans. We knew scouting reports. We knew who the other team's shooters were, and we knew their tendencies.

REED: We wanted to win the regular season championship, and we were flirting with not being able to do that, because offensively, we had gone cold against Bucknell. We had put ourselves in a position competitively with these games to score it and defend enough, but it was time for us to take another step.

Lehigh would not lose again until its second game in the NCAA Tournament.

CHAPTER 3

BEATING BUCKNELL

HAAS: The team had to go to Bucknell for the Patriot League [Championship Game], which is a tough place to play, but it's a place where Lehigh had been successful over the years. So even though Bucknell was very good at home, Lehigh had been very good at Bucknell. It set up to be a heavyweight matchup at Bucknell, and the game lived up to the billing.

REED: We had to really be in the moment, because any-

thing that would distract us would probably lead to us being less than our best.

So I think our players were actually really confident going into that game. Because the one thing we always had throughout the course of the year, even though we made a team commitment, we had toughness, we had all that, we had a pretty special player who could rise to the occasion. When you know that, that's so reassuring, and it helps build so much confidence.

TYLER PIEDE '12, "CLUTCH," LEHIGH'S MASCOT: The "big bad wolf" was always Bucknell. Whenever they played Bucknell, it was an intense atmosphere. Two giants doing battle. During the Patriot League final, I was nervous

as all get out. ... I knew that, if we don't win this game, we'd never make it to the dance.

MANERI: We hated them! ... It was a tough place to play, but I also felt like we thrived in settings like Bucknell's—their fans were in there 40 minutes before tip, yelling stuff at us, but we really thrived on that.

HAAS: Lehigh had the lead for most of the game. Bucknell made it very tight down the stretch, but Lehigh made the plays in a hostile environment to pull out the championship. Just winning the Patriot League in itself was a huge accomplishment for this team. It was a great moment in itself.

KNUTSON: Everyone talks about the Duke game, but my favorite game that season was actually the win over Bucknell. We had such a rivalry with them back then. To go into their place—I hate to say it, but they have amazing fans, really amazing fans—that was a tough place to play, and getting that win, the excitement of that, really helped us. We knew we were playing good basketball.

It was a crazy game. I don't think we ever lost the lead but it was close. It was really back and forth—a tough, competitive game. Late on they hit two threes and tied it up, and we had to come down and get a bucket. Then they had the ball with a chance to win it, and I got switched on the guard. That was an intense moment. We almost lost the game, having been up the whole time. But they were tough. That was always a big rivalry for us, and the confidence we got out of that win was tremendous.

REED: It was a really hard-fought game, and to see the look on our guys' faces, to be able to accomplish their goal, even doing it in a hostile environment, and the reflection on the commitment that they made, the togetherness they made. They sacrificed personally for that goal, whether it's their own performance, or their pride, or whatever it might be, or their overall commitment. For C.J. to be able to accomplish that goal and have that sense of satisfaction that he had made the right choices to sacrifice for the greater team good, that decision was validated, was really something that was special.

Because there's so much time before the NCAA Tour-

nament, it was more of [a time] to enjoy the moment, a validation of everything that we did, an opportunity to just soak it all in, and have a deep sense of appreciation that you brought young men in on a journey together to accomplish something they said they wanted to do but they didn't really understand what it would take to get it done.

HAAS: It was a great moment for the whole athletics department, for our alumni, for our team. I think the team and all the fans who were at Bucknell clearly enjoyed the moment. There's a few days of downtime before you can do too much planning prior to the Selection Show. It was a fun few days of celebrating a Patriot League championship.

CHAPTER 4

BRING ON THE BLUE DEVILS

The Lehigh players gathered at the Hawk's Nest at Lamberton Hall to learn, with the rest of the country, who they'd be playing in the NCAA Tournament.

REED: We were watching the Selection Show and found out that we were playing against Duke. The [then-] president of our university, Alice Gast, was at that Selection Show. One of her impressions was, "Duke's a great school. What a great opportunity to compete against somebody that academically has a national reputation just like Lehigh does." She's thinking about it from a broad perspective. Then I turn and look at our guys, and they're about as excited as can be, and I think the excitement's a little bit different. What do you think? "Coach, that's a great matchup for us. We're going to win this game."

MCCOLLUM: When we got the Duke matchup we were happy about it, because we felt like we could match up against their guards. We felt like we were as good as just about any team in the NCAA, especially when teams were guard-heavy and facing injuries in their front court. So I liked the matchup, and I felt like we were going to win as soon as we'd seen the team we were playing.

REED: There are certain teams that are just going to pound you to death, and Duke had that ability. But their style was a little bit more like ours, where you're going to use some interior play, but you're also going to allow the perimeter players to work. We had some tough matchups. We had some things that we were really going to have to mask. But they would have had to play a slightly different style to turn almost into bully ball, to really capitalize on where we were weak, and that wasn't the way in which they generally played. So maybe part of it was just that youthful exuberance of our guys to play against Duke, "Ok, yeah, let's bring on the best" vs. some other team, and another part of it might have been the idea of where we're strong and where we're weak, and how that matchup could end up playing into those factors.

KNUTSON: You've gotta start with C.J. We knew he was better than all of their guards. We already felt like we were going to have the best player on the court. Then you had somebody like Mackey [McKnight], somebody with such competitive energy and fight. I don't think I've ever played with somebody so competitive. Having those two guys, then, we really felt like we had an advantage at the guard position.

As for the bigs, it's hard to say that we had an advantage. That's where I came into play. I knew I had to play well if we were going to have a chance to win. They were much bigger than me, but skill-wise, they were just big bodies. Those weren't the kind of guys who you could just throw it down to in the low post and they were going to score 40. They were more like run-the-court, hustle guys. And we knew they weren't going to swing the game as long as we competed me, Holden and John [Adams].

GREINER: I grew up a huge Duke fan. I was obsessed with Shane Battier and Mike Dunleavy Jr. and Jay Williams and all of those guys. My brother and my dad were also huge Duke fans. We watched every game. So for me, it was weird. I always wanted to meet Coach K, and I always saw Duke as this sort of mecca for college basketball—this other level entirely. I never saw Duke as being on the same level as me, even when I started getting scholarship offers. But then we're sitting there on Selection Sunday, and we had watched a lot of Duke, and we knew we matched up with them. We didn't match up well with Mizzou (another No. 2 seed in the tournament), but we knew we could beat Duke. So when we saw them on the board and were on TV celebrating, we weren't just celebrating because we knew we're on TV, we were celebrating because we knew that was a game we could win.

"WHEN WE GOT THE DUKE MATCHUP WE WERE HAPPY ABOUT IT, BECAUSE WE FELT LIKE WE COULD MATCH UP AGAINST THEIR GUARDS."

-C.J. MCCOLLUM

The team was excited. So, too, were the Lehigh fans. Or at least, the true believers were.

HAAS: Right away, you know tickets will be at a premium. It's going to be a really hot ticket. We had already done pre-planning, but immediately we were working with our communications staff, setting up messaging. Instantly, people wanted to know about tickets. ... We did sell out our entire allotment within essentially minutes the first day.

ARIELLA SCALESE '14, LEHIGH CHEER-

LEADER: All of my friends, especially my guy friends who follow college basketball, said, "I can't believe you guys are going. You're going to lose. You're playing Duke, the No. 2 seed, and you guys are a 15." Many people doubted us. I had this gut feeling, you know, that we'd win.

MITCH GOLDICH '09, SOCIAL MEDIA PRODUCER,

SPORTS ILLUSTRATED: Somehow, Lehigh fans spent a week convincing ourselves we could win. We emailed each other movie clips of the Hickory High team measuring the court dimensions in *Hoosiers* and Jim Carrey deadpanning, "So you're telling me there's a chance!" in *Dumb and Dumber*.*

CHAPTER 5

REED: Kids grow up—I grew up—dreaming about playing for championships and dreaming of playing in the NCAA Tournament. Being a boy from the suburbs of Detroit, Mich., I remember taking a shovel, cleaning off snow from the driveway, wearing a pair of gloves, bouncing a basketball that is so cold it doesn't bounce the right way and doesn't really come up very high, and shooting shots. ... I'm sure my experience as a kid with those dreams wasn't that much different than the kids we had on our team.

SCALESE: There were several Lehigh fans and a lot of Lehigh students who took a drive down for the game. It was also great to have another group of fans, those North Carolina fans [who hate Duke]. They said, "You guys need to win. We are on your side. We are cheering you on." So we had a warm welcome.

To be in a huge arena like the one in Greensboro, I just felt starstruck. As a cheerleader, that's what you dream of, you dream of that big championship game, to represent your school.

HAAS: We made sure we brought as much marketing, sort of fan engagement paraphernalia, as we could, in terms of signs and giveaways and things like that just to dress up the section and make it look as spirited and pro-Lehigh as possible.

"KIDS GROW UP—I GREW UP— DREAMING ABOUT PLAYING FOR CHAMPIONSHIPS AND DREAMING OF PLAYING IN THE NCAA TOURNAMENT."

-COACH REED

KERR: We were the first game of the night session, and we had to get there pretty early. There was a police escort to go from the hotel to the game. When we get to the [Greensboro Coliseum] there are TV cameras waiting for the team to get off the bus. They'll show that as part of their pregame coverage.

We walked into the arena, and it was filling up. I had courtside, which is press row. I'm going to call the game from there, and as it turns out, I was right across from the Duke bench. The national TV broadcasters, national radio broadcasters had some of the prime seating toward center court.

HAAS: Duke is one of the most popular programs in the country, in terms of fans. North Carolina is also very popular, but North Carolina, in that region, is *very* popular. So there was a ton of North Carolina fans at the game. We kind of knew going into it that they would of course root for us and against Duke, given the rivalry. And we understand that rivalry, given Lehigh-Lafayette, there's a lot of similarities there. So we brought "Go Lehigh" signs, and our students and some of our cheerleaders and fans handed them out to Carolina fans who then proceeded to cheer for us during the game and at timeouts. It sort of gave us strength in numbers a bit from a fan perspective.

MANERI: It almost felt like a home game for us. I thought it was one of the coolest experiences I ever had in basketball.

MCCOLLUM: Going into the game, I knew I had to carry myself with a little bit of swagger. I had to let Duke know that we weren't going to lay down. North Carolina had played right before us, and Harrison Barnes and Kendall Marshall were hanging around by the tunnel as we were preparing to go out for warm-ups. I told them, "Hey, tell your fans to stay for our game. We're a small school, bro. We need some support."

Harrison was laughing, like, "all right, sure." I'm like, "For real. I'm about to put on a show. Stick around."

When we got on the floor for warm-ups, the Duke guys were trying to get in our heads. The trash talk started early. "What's a Lehigh? I never heard of a Lehigh." Stuff like that.

I tried reverse psychology on them. I was like, "Man, you guys got a lot of fans here. Would be a shame if you guys lost, huh?"**

CHAPTER 6 THE GAME

REED: It might have been the very first of two plays or the first two plays, we got so excited, we didn't do what we were supposed to do. And one time, [Duke's] Mason Plumlee caught the ball on the perimeter, did a little pass fake. John Adams jumps in the air as if he's going to block a pass, even though that wasn't what we had worked on, and [Plumlee] just dribbles down the lane and dunks it—about as hard as you can dunk a basketball. They might have even gotten another dunk on their first couple possessions. And I'm like, "Oh no, we're in trouble."

KNUTSON: We always joke about that play. He pumpfaked from three, drove down the lane, three dribbles and then just hammered it—I mean, hammered it. He actually had three dunks to start the game. But we weren't rattled by it. We were confident. And I think a lot of that came from C.J. and his leadership.

REED: Here's little old Lehigh, and Duke immediately makes some really high-end athletic plays—partially because we didn't execute, partially because they're very good and they could take advantage of whatever it might be, and it left me just kind of rubbing my head, saying, "Man, this is going to be a long night." But fortunately, our guys got grounded again. **GOLDICH:** The Lehigh crowd stood for the majority of the game, chanting "De-fense" and clapping until our hands bled every time Duke had the ball. The Blue Devils fans cheered, but only reached that level of fury for dunks and lead changes in their favor. They could have controlled the atmosphere, but strangely, they didn't. While one set of fans was intense and determined, dreaming of the impossible, the other expected to sleepwalk through to the Sweet 16.^{*}

REED: We would build a bit of a lead or make a run, and then Duke would always have an answer. Duke would make a run, and we knew that they were really good and those runs were going to come. Basketball's such a game of momentum. It's hard to think that you're just going to totally slow down your opponent for a full 40 minutes.

KERR: It's a two-point game at the half, so this is going well. We're not getting blown out. We're hanging with them.

MANERI: I think, come halftime, they started catching on that this kid [C.J.] was for real, and also that with us as a team it wasn't just "the C.J. show." There wasn't any point where we were thinking, "Oh, we're not going to win this game." It was neck-and-neck the entire time. At halftime we were heading to the locker room, and I remember we heard Coach K going crazy through the walls, yelling at his team. They were clearly in shock. We knew we had something there. They were afraid.

PIEDE: The second half of basketball that Lehigh played [was] a truly inspired effort. I remember watching it from the floor and just being blown away, knowing they were always capable of it but to actually see the execution of it, was completely surreal and always gives me goosebumps.

LEHIGH POLICE CHIEF ED SHUPP: I don't think a lot of people gave us much chance of winning [but] after about 10 minutes of the game, I actually thought we were much more competitive than I expected us to be, and I felt we had a good shot at continuing the momentum that we had through the rest of the first half and into the second half.

HAAS: Early in the game, C.J. had a crossover on the right side of the court where he went to a kind of double crossover and shot a fade away along the baseline. And that was just a "wow" moment I think for a lot of people. Even the announcers were pretty animated over that move.

REED: C.J. was pretty much being C.J. He didn't change his approach for the moment, he didn't try to do anything differently. As a basketball program, and even as our offensive system, we put him in a lot of positions to make decisions and have the ball in his hands, because he's that talented of a player.



SCALESE: There were very strict NCAA rules. We had to sit, crisscrossed, on the floor. But any time Lehigh scored, we jumped up right away. It was a very fast-paced game. So we were up, down, up, down, and it went so fast. We're ahead, then Duke gets ahead, then we get ahead. So it's back and forth, cat and mouse.

REED: There was one unique timeout that I remember. We had kind of fought back a couple runs already, and then Duke had made a pretty strong charge and made some tough plays. And offensively, I think we had sputtered just a little bit and maybe we had some opportunities we didn't convert on. I'm thinking in my head, "What do I go back and say to this team in this timeout right now?" because this is one of the most critical parts of the game. If we fall apart, if we back down, they're going to extend the lead because that's usually what happens.

When I came back to that huddle, our players were echoing a lot of the same message that we had talked about in practice from Day One, through the first month, through the first series of games, and they were almost convincing each other. "Guys, we can do this. Everyone, we need all of us together. We've got to follow the game plan. Let's work together to get the best shot." Those were the things I was hearing in that time out, and where I thought I had to be the catalyst to change the momentum, they took control. That was a pretty special moment.

GOLDICH: The atmosphere in the Lehigh section during those final 20 minutes was among the most intoxicating I've ever experienced—comparable to the World Series and the NFL playoffs.*

KERR: At one point, we have an eight-point lead, and now I'm thinking, "This is going to happen." It's late, somewhere in the last four minutes because you keep waiting for Duke to remember they're Duke. I was running down the clock

every time we would score. And now the lead is five, and I would say, "The lead is five and there are 2 minutes and 30 seconds left in this NCAA Tournament game." I think they got it as close as three after it had gotten to eight, but we were getting rebounds, we were making our shots, and they weren't. They kept taking threes. "Thank you very much!" They kind of played right into Lehigh's hands.

PIEDE: The one moment I'll always remember, in the last couple of minutes, Gabe Knutson had a dunk. ... It was on an inbound pass, they just threw it up to him, and there was no Duke player even around him, and he just, in a thunderous fashion, slammed the ball down through the hoop. I was just shaken. At this point, you knew we were going to win the game, and it would just be one of the all-time upsets in tournament history. **HAAS:** That was the moment where we knew, "Wow, we're going to do this. We're going to win an NCAA Tournament game." And that was pretty exciting.

SCALESE: Those final couple minutes, we were so tense. And it was, "We can do this. We can actually do this." It was so close and surreal, and you're just watching the clock.

CHAPTER 7 VICTORY!

KIM MCQUILKEN '74, FORMER ATLANTA FALCON:

I was in Atlanta, right in the heart of NCAA basketball territory, at my country club, the Cherokee Country Club. We have a sports bar setting called The Tavern. The Tavern was packed–a lot of Duke fans, a lot of North Carolina fans who hate Duke. I was probably the only Lehigh fan.

As the game goes on, we keep hanging in there. People thought Duke was going to run away with it in the second half. I said, "If Lehigh wins, we're going to have to sing the Lehigh fight song." I did a little warmup of the fight song. … [The] CEO of Waffle House was there. I didn't know he was in the room. He says, "Man, Lehigh's going to win this game. I want you to sit at my table." He introduces me to [the] CEO of Coca-Cola [Enterprises Inc.]. I've got two CEOs of two very recognizable companies in America who are now rooting for Lehigh to beat Duke. The whole room is hanging on every shot.



KERR: So many people—who were doing whatever they were doing and someone would text them and say, "Lehigh is beating Duke right now"—if they weren't watching or listening, they'd go find a TV, or turn on the radio if they were in the car or whatever, because this was going to happen.

REED: It got to the end of the game where we were making free throws, and we had enough of a lead, and it became pretty apparent [that we would win]. We had held off the emotion, and a pretty cool thing happened. C.J. walked over to the bench, walked to the players who were sitting down, and said, "Act like you've been here before." What that meant was, we played a hard-fought game, we did something that was really monumental, not only in Lehigh basketball history but the entire history of Lehigh University and even in the entire history of the NCAA Tournament. "Acting like you've been here before" means that you give your opponent respect, and just like on Selection Sunday, we thought we were going to win, so why would we now all of a sudden change our entire attitude and complexion and run around and be all excited, which you see all the time?

GREINER: A couple years earlier against Kansas, I was scared. I couldn't breathe. When I would get the ball, I was just thinking, "Don't turn it over! Don't turn it over!" But against Duke, when I got in the game, it was like, "It's about time." That's just a testament, I think, to how good our team felt going into that game.

I think we were up five, right after a full-court pass and the dunk by Gabe. And C.J. walked over to the bench and said, "Hey, we expected to win this. Show that we expected it. Show that we've been here before." And he was right. We did expect to win. It's hard to explain, but we believed we were the better team. We didn't really feel like it was that much of an upset, because we felt we were the better team.

MCCOLLUM: I didn't want to see guys acting like we never won anything. We had won conference championships before, and we should have won Michigan State, and we should have won Kansas my freshman year. ... "All right, we won. Let's celebrate behind closed doors and when we get back to campus."

The horn sounds. Game over. Lehigh beats Duke, 75-70!

KERR (RECALLING HIS CALL AT THE TIME): "This magical Lehigh season will continue!" Because it was magical. They had already won more games than any other Lehigh team had ever done, and now they just beat Duke, and they're going to play a second NCAA game.

This is DUKE, and Lehigh beat them! Lehigh had never won an NCAA Tournament game, and when they did, they beat Duke!

MANERI: That was one of two times in my entire life when I had a smile on my face that I couldn't force away, couldn't fake away. Basketball had never felt so good. After four

"THAT WAS ONE OF TWO TIMES IN MY ENTIRE LIFE WHEN I HAD A SMILE ON MY FACE THAT I COULDN'T FORCE AWAY, COULDN'T FAKE AWAY."

-JUSTIN MANERI

years of busting our butts, doing morning workouts, double sessions, it just all came together. I thought, "We're here. We're at the pinnacle."

PIEDE: My head was in the clouds. We stormed the court. We wanted to be part of the moment.

SCALESE: I was flooded with emotion. I just started crying and jumping up and down. That's how I handled it, and somehow the [national TV] camera captured it. It was the best moment. If I could relive it again, I would.

MCQUILKEN: We win the game. [The people in The Tavern] stand up with me, cheering. *Rearing, tearing, down the field, down the field, Lehigh's team will never yield, never yield...*

The whole room sang the [fight] song. They were cheering wildly. It was a special moment. We sang it at least twice.

SHUPP: It was pandemonium. Everyone was so ecstatic about what Lehigh pulled off, a frenzy is what it was. Ninety percent of the people in the arena were pro-Lehigh, because where the game was held, you were either a Tar Heel fan or a [North Carolina State] Wolfpack fan, and you hated Duke. So everyone was favoring Lehigh.

GREINER: I can I say I grew up idolizing Duke. But I can also say I beat them. Not many people can say they defeated their heroes in the very thing they wanted to excel in.

REED: I had to go shake hands with an icon in college basketball [Duke coach Mike Krzyzewski]—someone who had represented our country in the Olympics, in what might have been one of his most disappointing basketball moments of his career. To ask a person of that magnitude and that caliber to try to address me, I thought was inappropriate.

So I took the initiative as I went to him: "Coach, we have so much respect for your team, we have so much respect for your program and what you have done with that program for many, many years. It was an honor to be able to compete against you and your team tonight."

I didn't feel like Coach K needed to say anything to me, but I wanted to make sure that we showed the proper respect and honor to not only him and his coaching staff but also to his team and that overall iconic program of Duke. **GREINER:** All season long me and Jordan Hamilton would talk about it, and he'd always say, "Oh yeah, we're going to win the championship." I remember us losing to American at American, a tough loss, and he's still completely confident. I've never seen somebody so confident of something. "I think we're going to win a game in the NCAA Tournament." I remember him saying that all the time.

I remember thinking, "What's this guy's story?" And after it turned out that way, I asked him, "Jordan, how did you know that?" And he would say, "I just felt it in my bones." Jordan is a very spiritual guy, all about the energies of the universe and all of that, and said he could feel something special was around us and around our guys. So when we stepped on the court against Duke, we all believed we could do it. We didn't think about how awesome it was going to be out there. It was all about, "We can win this. This is a winnable game. We've played tougher games than this." I mean, that was the matchup we wanted, and we knew we could beat them, because every guy from Day One bought into what their role was.



A CAMPUS ERUPTS

Back home on the Lehigh campus, everyone, it seems, was celebrating.

HAAS: The team was very excited in the locker room after the game, clearly. They were hugging. ... Some people were doing media interviews with ESPN and sort of national publications. But there were some players who were sitting in their locker, and they were on their phone and they saw what was going on on campus, due to social media. So they knew immediately the celebration that was happening around campus. So there was that instant feedback, and they thought that was pretty cool.

SHUPP: As soon as it was down to the final minute of the game, I was already on the phone with my supervisors at Lehigh, as well as the [then] city of Bethlehem Police Commissioner Jason Schiffer. Happy for Lehigh, happy for the team, but I don't want to tarnish the image of the school and what the team has just accomplished by having negative things occur back on campus. So [I told my officers], "Let's give students some room to celebrate and enjoy themselves without being destructive in any way."

The students were spilling out from just about everywhere. A third of our students live off campus. There were a lot at local bars, watching the game. Lamberton [Hall] had a viewing. There were a lot of students down in the area of

"WHEN WE STEPPED ON THE COURT AGAINST DUKE, WE ALL BELIEVED WE COULD DO IT."

-HOLDEN GREINER

Morton Street, Adams and those areas. Most of the celebrating went on close to 12:30, 1 o'clock in the morning. It turned out to be a win-win for everybody, for our team, for the university and for our students, for as well-behaved as they were.

EMILY NAGAN '12, WAS WATCHING THE GAME AT A FRIEND'S HOUSE ON S. FIFTH STREET, BETHLE-

HEM: As soon as Lehigh won, we just heard all these people cheering and honking in the street, running around and just yelling, "Go Lehigh!" It was a really, really fun environment, all over campus.

We went to the UC lawn, where there was sort of an impromptu celebration. There were so many people there. It was packed. There was music, everybody was just celebrating and cheering and singing the fight song.

Many were celebrating in North Carolina, too.

SHUPP: I wish I would have been smarter and brought some Lehigh shirts with me because I was offered \$100, \$150 for the shirt off my back, from the North Carolina fans, right after the game. I didn't pay for a drink for the rest of the night. [He laughs.] We were in Tar Heel territory, and everybody hates Duke. The team was applauded everywhere. Everything was pro-Lehigh because you knocked off one of their arch-nemeses.

HAAS: [Lehigh's] athletic website was up 10 times [in hits] what it normally would be. We were the number one search term on Google during that time frame. And part of that was we were in the 7 o'clock time slot on CBS, because it was Duke. So playing Duke actually gave us more eyeballs on the game; 8.4 million people watched the game. That was a benefit of being at a game with Duke—you're going to get more eyeballs on your school and that resulted in being the top search term on Google for 24 hours.

Meanwhile, back in the locker room, it was all business.

GREINER: C.J. walked in, and he quieted everyone down. He said, "Are y'all done? You done? You happy now? You happy with this win, or do you want to keep going?" We had just beaten Duke, and he's not even thinking about that, he's thinking about the next one.

REED: The most enjoyable moment that I had was recognizing and addressing the crowd [immediately after the game], because when I went back into the locker room, I had to figure out how to manage this emotion, because we had to play again in 48 hours. And there's media responsibilities. ... Then I'm watching the two teams that we might play next. It wasn't until I went back to the hotel, and I was with my wife in the hotel, we watched a little bit of SportsCenter and we said, "Oh, this is for real."

The first moment that I really had a chance to stop and absorb it and be reflective was after our pre-game meal, on Sunday, before we played Xavier. Everything prior to that moment was trying to get ready for Xavier. At that point we had gotten everything ready, and it was the most that we could do.

My dad had a saying, "The hay's in the barn." At that point, I had watched the film, we had delivered the messages to our team. We had done everything that we could do.

Lehigh became the first-ever No. 15 seed to lead its Round of 32 game at halftime but fell short against Xavier, 70-58. The team then headed back to Bethlehem, where their fans awaited.

CHAPTER 9

ARRIVING HOME

SHUPP: We flew back after the game. It was about 2:30, 3 o'clock [Monday] morning, and we were met by the commissioner of the city of Bethlehem police department, at the airport ... and we were given a police escort back to campus.

HAAS: There were hundreds of students and fans outside Taylor Gym to welcome the team back, which was really cool to see. It was a pretty great moment for the team and for the students to kind of have that moment together. That's something that I won't forget. or two years. It can take a long time to mesh, to build something, to have an entire team working toward the same goal. My freshman year we had a good team, but in the [2010-2011] season, there was some back-and-forth between players, arguments. When our senior year came, we put that to an end. By my senior year, I understood that everyone has roles on any team, and everyone has to play those roles. I was the best player on the court in high school. I wasn't in college. I had to accept that, I had to play my role. That's in life and in basketball. That's what I took away from that team and that season. I see that at work even today—if you just do your job, the whole team does better.

BAILEY: Thinking back on it now, just because we were so persistent with what we were trying to [accomplish], that's why we deserved it. [We had] a great group of guys and great individuals from the leadership of the department—the athletic director on down to the athletic trainers and ... the student managers—and everyone just bought in. I think it's important to celebrate because of how much we put toward attaining that goal and winning a game like that. We'll always have that, and hopefully we'll let that live on in our lives as we're trying to attain other goals.

GREINER: That season as a whole, and that game specifically, really helped shape our careers. The craziest thing about that team was, we loved each other. ... So when we made our championship rings that season, I remember the ring designer telling us, "OK, you have space for some text here, and here." Coach Reed called in the seniors and asked what we wanted on the rings, and we told him: "Family." The ring guy was confused. "You don't want to say 27 wins?" No. We wanted it to say "family," because we wouldn't even have those rings if not for that.

*Excerpts taken from Mitch Goldich's "Lehigh Beating Duke Shows Why March Madness is So Great," originally published in The Huffington Post. *Excerpts taken from C.J. McCollum's "Absolute Madness," originally published in The Players' Tribune.

SHUPP: We were underdogs, and the team came through, but the players never got cocky.

The team was an inspiration to all of Lehigh, and their remarkable season continues to impact their lives today.

HAAS: A slogan came out of it that Lehigh jumped on, which was "Believe in Yourself." Our players talked about there wasn't a lot of belief that they could win outside the locker room, but they believed in themselves. That became a bit of a rallying cry for a little while after the game, that you can accomplish things if you believe in yourself. Lehigh has taken that to heart, beyond basketball.

MANERI: For me, that season made me realize that, sometimes, [success] doesn't take one year,





WHERE WERE YOU WHEN Lehigh beat duke?

I was studying abroad in Freiburg, Germany, at the time. I went to a local Irish pub that sometimes played English/American sports and convinced a bartender to stream the game for me via Internet on one small TV. I was getting very excited as the game went on, and people began to take notice. Some Germans decided to join me in watching in order to cheer for "the brown team." Soon, most of the people in my area in the bar were all cheering for Lehigh (despite most of them never having heard of Lehigh, Duke, or the NCAA tournament before) after I explained the significance of the game.

Unfortunately, the bartender had to close down at halftime, and I missed the last tram back to my student apartment. I remember sprinting across the town to get back in time for the second half, which I was able to watch through NCAA on my computer. While I was sad to miss the celebration back on campus with all of my friends, I was proud to turn a small group of Germans into Lehigh fans for one epic night. Jason DuPaul '13

I decided to surprise my kids and take them out of school to go to the game.

We ended [up] staying at the same hotel as the players and their families. My boys really wanted to show their support for Lehigh, so we found a barber in the mall in North Carolina who shaved the boys with the LU (Kevin) and the L Hawk (Shaun) logos. I will never forget the support that everybody showed Lehigh. That game will always be one of my family's most favorite memories—and that team (players and coaches alike) will always hold a special place in our hearts. Mary Jo McNulty, Lehigh HR Associate

Was out with friends for dinner and drinks during the tournament in the Washington D.C. area. As the game was on, I noticed an active cheering group at the corner of the bar. I quickly walked over to join them and asked, what year did they graduate from Lehigh? To my surprise, they told me that they graduated from UNC and despised Duke. As we had a joint interest in the game and Lehigh's win, we became fast friends since then. Kevin J. Clarke '85

I was driving from Pennsylvania to a house in Connecticut my husband (Gregory W. Bosch '06, '09G) and I had just bought the week before. When I arrived, I asked if he had the game on, and he said, "Nah, they're probably getting crushed anyways." I insisted that we at least turn it on, and good thing I did. We sat in two beach chairs in the living room and watched as Lehigh closed the point gap. It wasn't long before we were jumping up and down in our

new, empty house as Lehigh took the lead. I can only imagine what our new neighbors must have thought about us crazy people that just moved into the neighborhood. ... GO LEHIGH!

Renee Philbrook Bosch '08

I watched the game on TV. When the game was over, I tried calling my two sons [Kevin '11 and Mike '13].

I was so excited about the win, I didn't pay attention while I was calling them on my cell while walking down our stairs. I fell down the stairs, and I broke my foot. **Kim Jaffe Enterlin '78**

I was in Tampa the night of the game (proudly wearing my Lehigh gear) at a sushi restaurant seated directly across from "A-Rod" Alex Rodriguez. (He was in town for Yankees spring training.) Well, the TVs were on with the game, and I was rooting/ cheering/screaming like CRAZY. By the end of the game the whole place was rooting for Lehigh, including A-Rod! Whitney Clark '08

That day, March 16, 2012, sticks out in my head as my Dad's (Peter A. Thomas '59) proudest last moment to

be a Lehigh alum. It was his 75th birthday, and the whole family convened over to his house to celebrate and watch the big Lehigh vs. Duke basketball tournament game. We Skyped my daughter, Olivia A. Hodina, class of 2015, so she could say Happy Birthday, and of course she was watching the game while in her Lehigh dorm room. All of us wore Lehigh reunion hats my Dad saved over the years as we cheered them on. When the final buzzer went off, we all jumped up and down for joy! Olivia showed us out her window all the Lehigh students screaming and cheering while running down the hill. It was a coincidence they scored 75 points, and my Dad turned 75. The next month he was diagnosed with lymphoma and passed away Oct. 18, 2012, that year. **Cheryl A. Thomas Hodina**

For more alumni memories of the Lehigh-Duke game, go to **lehigh.edu/wherewereyou**.





To hear directly from the players, coaches and fans who played in or witnessed Lehigh's stunning upset of Duke in 2012, visit Lehigh's YouTube page at **youtube.com/** user/lehighuofficial

a PRESCRIPTION for DELACE



SUCCESSFUL PEACEMAKING BETWEEN LONGSTANDING ADVERSARIES, A NEW BOOK ARGUES, IS ALMOST ALWAYS IMPOSED BY STATES FROM THE TOP DOWN AND THEN SUSTAINED BY SOCIETIES.

Story by Kurt Pfitzer



hose who doubt that peace can ever be achieved between deadlocked adversaries such as Israel and the Palestinians, says Norrin Ripsman, might find hope in the example set by France and Germany.

Between 1870 and 1945, says Ripsman, the Monroe J. Rathbone Professor of International Relations, the two European neighbors fought three bitter wars—the Franco-Prussian War of 1870-71, World War I (1914-18) and World War II (1939-45).

"The death and destruction caused by the wars involving Israel in the Middle East," says Ripsman, "pale in comparison to the death and destruction caused by the three Franco-German wars. And the hatred that the French once held toward the Germans is almost impossible for us to imagine today."

In annual surveys conducted by the French Institute of Public Opinion, says Ripsman, the French until the early 1960s ranked Germany near the bottom when asked to list their country's friends among the other nations of Europe. By the early 1970s, the surveys found, West Germany had become France's best friend in Europe; by 1980, it was France's best friend in the world.

In 1989, when East and West Germany were reunified, 80 percent of Frenchmen said they would not fear German rearmament if it were done in the context of European institutions and democracy.

Ripsman explores the causes of this turnaround in a chapter in his latest book, *Peacemaking from Above, Peace from Below: Ending Conflict Between Regional Rivals,* which was published last year by Cornell University Press. The book also devotes separate chapters to the Egyptian-Israeli peace treaties of 1978-79 and the Israeli-Jordanian treaty of 1994. A fourth chapter examines other examples of peacemaking efforts. Each study involves a neighboring pair of nations of comparable power.



In writing *Peacemaking from Above*, Ripsman conducted personal interviews, did archival research and consulted secondary sources of peace treaties. He concludes that successful peacemaking is almost always imposed by governments and stabilized by societies. Governments, he says, often disregard societal objections. Their motivations include concerns over

a third state that poses a greater threat to security than the adversary, pressure from a powerful outside actor, and economic troubles that threaten their hold on power.

In contrast, peace is sustained by societal groups through cultural and economic exchanges, trade and mutual cooperation in international institutions. The prospects

for long-lasting peace, Ripsman says, improve if adversary states begin to democratize, if dispersed ethnic groups are reunited, and if stateless minorities gain self-determination.

His findings, says Ripsman, have practical as well as theoretical significance. Western nations and international organizations, he believes, squander money, time and energy by investing in bottom-up peacemaking efforts between adversaries before their governments have agreed to make peace. For example, the Unites States, the European Union (EU) and Japan all support exchange programs involving Israeli and Palestinian children, and Pakistani and Indian children, although their nations' governments have not yet agreed to make peace.

"We waste a lot of resources putting the cart before the horse by spending on bottom-up strategies," Ripsman says. "We need to promote peace properly and stabilize it properly. We need to achieve agreement by giving incentives to rival states or by putting pressure on these states and using a carrot and stick when appropriate."

Ripsman, who joined Lehigh's faculty in 2016, spent more than a decade working on *Peacemaking from Above*. During this

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time, he coauthored three other books, co-edited four and served on the faculty of Concordia University in Montreal. His first book, *Peacemaking by Democracies*, was published in 2002.

Peacemaking from Above grew out of an article Ripsman wrote on Franco-German peacemaking after World War II, which was published in

2005 by the International Studies Quarterly.

"I began to wonder if the lessons from France and Germany could be generalized beyond Western Europe, which is a large and homogeneous region from the standpoints of culture, institutions and religion. Could these lessons be portable to the Middle East or South Asia, which are tremendously different? Or did the FrancoGerman example explain just one case?"

A second motivation for writing *Peacemaking from Above* was Ripsman's conviction that the prevailing theories of peacemaking—liberal, realist and constructivist—did not fully explain it.

"One reason I decided to write my second book was that I was not satisfied with existing theoretical tools. Realists believe states make peace over the objection of their societies. Constructivists say peace occurs because societal attitudes change and compel leaders to change. They believe international institutions play a role.

"Liberals say peace occurs because of societal factors. They believe societies are more rational, and that if you change incentives, people will change their behavior. If people see they can gain economically by achieving peace, or that they stand to lose otherwise, they will calculate the costs of continuing a conflict and opt for peace."

Each of these theories explains part of the success of Franco-German peacemaking, Ripsman says. After World War II, French leaders faced an unchanging reality: the victorious, expansionist Soviet Union posed a greater threat to French security than did devastated and defeated Germany. Also, the United States was

pressuring France to make peace, and France's leaders realized the need to stabilize the fragile French Fourth Republic. These factors helped motivate French leaders in 1954 to sign a peace treaty with West Germany and agree to its rearmament under NATO supervision.

"Statist factors, including a common Soviet threat, U.S. economic and military incentives, and regimesurvival and state-building motives, brought about Franco-German cooperation and peace," Ripsman writes in *Peacemaking from Above*. "There is no evidence [that] public pressures, significant pressure from business interests, or a common identity created by participation in powerful regional institutions compelled peacemaking."

But if peace was imposed from the top, Ripsman writes, it was stabilized and socialized "with liberal and constructivist mechanisms. In particular, the entrenchment of German democracy within a network of economic interdependence...helped abate societal antagonism and build a foundation for a stable peace."

"Since the signing of the treaty," says Ripsman, "relations between

France and Germany have been characterized by a high degree of interdependence, trade and cultural exchanges. The two nations belong to a variety of institutions that are well-established, such as the European Economic Community—now the EU and the Council of Europe, not to mention NATO. Both states are now democracies and the region they occupy is a zone of democratic peace."

In sharp contrast to France and Germany, says Ripsman, Egypt and Israel have failed to build a stable peace since signing the Camp David Accords (1978) and the Egypt-Israel Peace Treaty (1979), which were facilitated by the U.S.

The two nations had geopolitical reasons for initiating a rapprochement—Egypt desired the return of the Sinai Peninsula that Israel had conquered and occupied since the Six-Day War of



"ISRAEL AND EGYPT HAVE ACHIEVED AN ENDURING SETTLEMENT, BUT YOU CANNOT CALL THIS A STABLE SETTLEMENT."

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1967, while Israel hoped to pacify the most powerful of the Arab states with which it had fought several wars since achieving its independence in 1948. And U.S. President Jimmy Carter had coaxed the two former adversaries to make peace with offers of military and economic assistance.

But, says Ripsman, while Egyptian President Anwar Sadat and Israeli Prime Minister Menachem Begin made peace over the objections (especially in the case of Egypt) of their respective populations, their nations failed to stabilize the peace with liberal and constructivist approaches.

"Israel and Egypt have achieved an enduring settlement," says Ripsman, "but you cannot call this a stable settlement. There has been no war or repudiation of the treaty since Camp David in 1978. But there have been frequent crises and attempts to revise

> the treaty, and there has been no societal buy-in, no significant effort to bring society on board through democratization or economic exchanges."

> When Egypt and Israel signed the Camp David Accords, says Ripsman, they also ratified 65 economic, social and cultural protocols. None of these has been implemented, however, since the assassination of Sadat in 1981. Nor do the two nations cooperate in any significant international institutions. And although Israel returned the Sinai Peninsula to Egypt, it has failed to resolve the state-to-nation issue with the Palestinians.

> As a result, Ripsman writes in *Peacemaking from Above*, the peace agreement between Israel and Egypt remains precarious, dependent on the whims of the nations' governments, especially Egypt's.

> "If the Egyptian military were to relinquish power, to the extent that Egypt undergoes a democratization process, the possibility exists that a government hostile to the treaty

could rise to power and no longer view peace as consistent with Egypt's state interests.

"Had serious attempts been made by outside actors such as the U.S. and by the Egyptian and Israeli governments to bring the rival societies on board after the peace treaties were signed," he says, "we would see a greater chance for an enduring treaty."

In his next book, Ripsman plans to explore the role of religion in national security and international peacemaking efforts.

"Religion does complicate peacemaking in some regions," he says. "But in writing my latest book, I found that when peace occurs despite religious differences, it occurs because of the same top-down mechanisms. Religion does not change the nature of how peace must occur."

MISCELLANY LUcy, canine officer

THE NEWEST ADDITION to the Lehigh University Police Department is a 9-month-old Belgian Malinois pup named LUcy. She will be certified as a bomb, chemical and tracking dog after undergoing extensive training with her partner, Officer Gregory Nolf. LUcy's name, suggested through the university's social media sites, is in tribute to Lehigh founder Asa Packer's oldest child, Lucy Packer Linderman.



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A team of engineering students designed and built Hyper Hawk, a 3,300-pound, human-scale pod for the SpaceX Hyperloop Pod Competition in January in California. SpaceX introduced the Hyperloop, an air-bearing, high-speed train meant to travel in a tube with near-vacuum pressure, in 2013. Hyper Hawk passed all the SpaceX tests for a final run, but a limited timeframe did not allow for its run in the tube. Lehigh's was the only undergraduate team to advance that far in the competition, and students look forward to continued innovation on their pod design. **Photo by Christa Neu**