

# *The* Quadrangle



## A NEW FUTURE FOR NUMBERS

The College of LAS builds and innovates  
to be a leader in data science

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## What is The Quadrangle?

We asked—and you responded! Last summer we surveyed readers for their thoughts on this magazine, and we’ve incorporated several thoughtful comments and ideas into our content and design. We’ve also changed the name: What was once LAS News is now The Quadrangle, in honor of a beloved campus feature where we all cross paths.

**Editor** Dave Evensen

**Graphic Designer** Heather Gillett

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# NEWS FROM LAS



## University of Illinois welcomes record-breaking incoming class

With a first-year student enrollment of 8,303, the University of Illinois Urbana-Champaign welcomed a record-breaking incoming class for the 2021-22 academic year. The new class brought total student enrollment to **56,299**, the largest in university history. Across the university, the class of 2025 includes 1,352 students from 44 other U.S. states. The class of 2025 also represents 42 countries, with 1,112 international students. In the College of LAS, first-year enrollment stood at 2,678, the highest since 2008.

[go.las.illinois.edu/Record-S22](http://go.las.illinois.edu/Record-S22)

## University of Illinois recognized for COVID-19 testing program

The University of Illinois received the inaugural **Research Response to Community Crisis Award** from the Association of Public and Land-grant Universities for its SHIELD: Target, Test, Tell program, which combined a campus-developed saliva-based testing protocol with statistical modeling and a mobile app for rapid results reporting and contact tracing. The program resulted in zero COVID-19-related deaths or hospitalizations among the campus community when in-person operations resumed in the fall of 2020 and prevented the spread of the virus to surrounding Champaign-Urbana residents.

[go.las.illinois.edu/C19test-S22](http://go.las.illinois.edu/C19test-S22)

## Federal Statistical Research Data Center opens at UIUC



A new UIUC Federal Statistical Research Center (FSRDC), operated within the **Department of Economics** out of David Kinley Hall, is giving researchers on campus a new opportunity to examine economic and other social issues with data that are not readily available. FSRDCs provide data from various government agencies that are normally hard to access. Most centers are located on college campuses or within government agency offices. The UIUC branch is now one of 32 FSRDCs in the United States.

[go.las.illinois.edu/FSRDC-S22](http://go.las.illinois.edu/FSRDC-S22)





U of I plans new building for ethnic and gender and women’s studies

The University of Illinois and College of Liberal Arts & Sciences are planning a new building for **ethnic and gender and women’s studies** that’s expected to greatly increase and improve teaching, research, and office spaces for several key departments and programs. The university has approved a feasibility study for the structure, which will house the Departments of Gender & Women’s Studies, African American Studies, Asian American Studies, and Latina/Latino Studies, and the Program in American Indian Studies. Timelines and the location of the new structure are still be determined.

[go.las.illinois.edu/EGWS-S22](https://go.las.illinois.edu/EGWS-S22)



Arts and humanities initiative supports three LAS projects



Initiatives within the College of Liberal Arts & Sciences are being supported by the second round of funding through the Presidential Initiative: Expanding the Impact of the Arts and the Humanities, announced by University of Illinois President **Tim Killeen**. The new round of funding will provide \$1.54 million to support 10 projects, including three within LAS. The LAS projects include an effort to break down barriers between African studies and African American studies, a project to assemble a history of the impact of COVID-19 on Black communities, and the establishment of certification in intercultural competence for undergraduates.

[go.las.illinois.edu/Art-Hum-S22](https://go.las.illinois.edu/Art-Hum-S22)

Chancellor names distinguished LAS staff for 2020-21

Three civil service employees in the College of LAS were recognized for exceptional performance by the University of Illinois. **Thomas Bedwell, Terri Gitler, and Lana Holben** were among 16 employees across campus to receive the Chancellor’s Distinguished Staff Award. Each recipient receives \$1,000 and a plaque. Recipients’ names also are engraved on a plaque displayed in the Illinois Human Resources Office.

[go.las.illinois.edu/CDSaward-S22](https://go.las.illinois.edu/CDSaward-S22)



(From left): Thomas Bedwell, Terri Gitler, and Lana Holben.



Daily Illini alumni visit Illini Hall before demolition

Last fall a group of **Daily Illini alumni** who were students in the 1970s and 1980s visited Illini Hall for one last view of their old offices before the building is torn down. The student newspaper was produced there from roughly 1950 to 1988. This photo from the early 1970s shows alumni in their student days. Front row, from left: Ron Logsdon (black-frame glasses), Mike Terwilliger, Vicki Schremser, Anne Cusack, Sam Langham. Back row, from left: Richard Greffe, Paul, a pressman (last name not available), Margaret Cusack, Hal Higgins, Tom Harm, Linda Ritzman. (Photo courtesy of Ron Logsdon.)

[go.las.illinois.edu/Di-alum-S22](https://go.las.illinois.edu/Di-alum-S22)



Sepkoski named Thomas M. Siebel Chair in the History of Science

**David Sepkoski** and **Thomas Siebel** (BA, ’75, history; MBA, ’83; MS, ’85, computer science) find that society’s most difficult challenges will be best answered using multidisciplinary perspectives in the humanities and sciences. For this reason, Sepkoski, professor in the Department of History, was named the Thomas M. Siebel Chair in the History of Science. “(Sepkoski) is cataloging important dialogue about the impact, both positive and negative, at the intersection of science and society,” Siebel said during the investiture ceremony.

[go.las.illinois.edu/Sepkoski-S22](https://go.las.illinois.edu/Sepkoski-S22)

Davenport Hall renovation includes access, mechanical upgrades

Student spaces and high traffic areas within the west wing of **Davenport Hall** have a fresh look as a renovation project concluded last semester. General assignment classrooms, public spaces, and certain departmental classrooms have been overhauled to include HVAC systems, equipment upgrades, and other mechanical work. The scope of the work also included a wheelchair accessible entrance on the west side of the building and updates to flooring and lighting.

[go.las.illinois.edu/Davenport-S22](https://go.las.illinois.edu/Davenport-S22)





### Venetria K. Patton named Harry E. Preble Dean of the College of LAS



**Venetria K. Patton** was named the Harry E. Preble Dean of the College of Liberal Arts & Sciences. Patton, who served in faculty and administrative roles at Purdue University and the University of Nebraska, assumed her new role on Aug. 2. [Get to know more about Dean Patton on Page 19.](#)



### LAS International Programs honored for its response during COVID-19 pandemic

International Student and Scholar Services recognized LAS International Programs with the **2020 ISSS Award for Outstanding Unit** for coordinating with other campus units and partners to create the Academic Bridge Program among other initiatives. The program allowed UIUC international students to study on a campus in their home country when they were unable to travel to Illinois. [go.las.illinois.edu/LASIP-S22](http://go.las.illinois.edu/LASIP-S22)

### ATLAS Internship Program provides hands-on experience

In a technology-driven society, computational competencies are utilized in every professional field. Within the **ATLAS (Applied Technologies for Learning in the Arts & Sciences) Internship Program**, LAS students develop a deeper understanding of technology through exposure to essential abilities that can help them thrive in the workplace. During the 2020-2021 academic year, more than 160 students found opportunities to expand their technology and professional skills with an ATLAS internship on campus. [go.las.illinois.edu/ATLAS-S22](http://go.las.illinois.edu/ATLAS-S22)



»» So much to share—so little space. For more about these LAS news stories and others please visit [las.illinois.edu/news](http://las.illinois.edu/news)

# Campustown bartender to Napa Valley winemaker



LAS alumnus **Christopher Carpenter (BS, '87, biology)** made his way from behind the bar at Campustown's C.O. Daniels to the vineyards of Napa Valley. The former Illinois football defensive end is now winemaker for several Napa Valley and Southern Australia wineries, and when it comes to bottling his craft, he finds the right notes using his background in science.

*Christopher Carpenter*

#### What is your position?

Winemaker for Lokoya, Cardinale, Mt. Brave, La Jota and Caladan wineries in Napa Valley and Hickinbotham Winery in McLaren Vale, Southern Australia. ”

#### In hindsight, what about college best prepared you for your life and career?

I walked on to the Illinois football team at a time when the Illini were one of the best teams in the Big Ten. There were a lot of great ball players who I was competing against for a spot on the team. It was not an easy road for a player who hadn't been recruited at the scholarship level. I played five years, ultimately earning a scholarship. That process was

fraught with mistakes, highs and lows, and, ultimately, with achievement. That lesson is part of my zeitgeist today, and I am thankful for those years as a result. ”

#### How did your major prepare you for your career?

Winemaking, without the business side, is 80 percent science and 20 percent art or craft. The base education I received in the sciences at Illinois I still use to this day. The great thing for me is it is not strictly focused on one discipline. For a science geek like me, you can't go wrong. ”

*By Kayleigh Rahn*



# FACULTY AWARDS

## *The spirit of community engagement*

Two LAS professors, Kathryn Oberdeck and Esther Ngumbi, recently received Campus Excellence in Public Engagement Awards. Here's what they're up to.



## Helping the community find its place in history

The perceived gap—real or not—between a university and the surrounding community has existed for as long as colleges themselves. For **Kathryn Oberdeck**, public engagement means bridging the divide so that students and community members can collaborate for a common cause: history.

The professor of history has been bridging that divide for a long time. During her days as an undergraduate at University of California, Berkeley, and a graduate student at Yale University, she did community work in local institutions, some involving history. Her efforts to connect with local institutions continued when she joined Illinois as a faculty member in 1993, and now Oberdeck runs a History Harvest course where students engage with members of the public to collect documents and

artifacts of historical interest for scholarly and community research.

She also introduces students to local organizations and community members such as LGBTQIA+ activists, the 5th and Hill Neighborhood Rights Campaign, and the Independent Media Center to produce digitally accessible

**For Kathryn Oberdeck, public engagement means bridging the divide so that students and community members can collaborate for a common cause: history.**

historical archives and exhibits from local community members.

Oberdeck co-directed a Humanities Research Institute Research Cluster that brought together interdisciplinary faculty members, archivists, students and local public history practitioners

to explore potential collaborations, producing student-led hidden history tours of activism on campus and in the community.

Through these public engagement efforts, students are able to develop a connection with community institutions beyond the university. These projects

also provide local access to the university's resources, teaching, equipment, and data. What distinguishes the projects is a spirit of collaboration that makes local community history more visible and accessible.

By Allison Winans



## RAISING SCIENTIFIC AWARENESS

How do you raise scientific awareness? For **Esther Ngumbi**, professor of entomology and African American studies, the answer is simple: engage the community around you.

“The goal is to share to the wider public so that all the wonderful work that the research department does doesn't end up only in journals, but is eventually received by the public and industries to create awareness of science,” she said.

Ngumbi advocates for sustainability and diversity in the global community of scientists. She partners with the Hendrick House, a student residential community on campus that operates a farm, to provide her entomology students with an opportunity to examine plants and insects and discuss

how to communicate their findings to the public.

Ngumbi also shares with local farmers recent discoveries in agricultural sciences to help improve farming and make important information

**“I'm passionate about science communication and engagement with the public”**

accessible. Ngumbi is a champion for science communication, with her written commentary focusing on soil and food security, climate change, youth engagement, and diversity and inclusion. Her essays have appeared in a wide variety of publications, including Time magazine, The Conversation, Science

for Development, Los Angeles Times, Scientific American, and Project Syndicate.

“I'm passionate about science communication and engagement with the public,” she said. “It's not just about sharing the knowledge in journals, but also making sure it's accessible to the public.”

One key to connecting the local community to science, she added, is consistency.

“I think you can step into something and play a wonderful part,” Ngumbi said, “but to come in day in and day out and year in and year out is what creates an impact.”

By Allison Winans

**LAS faculty have received many awards!** You can check out a running list at [go.las.illinois.edu/FacultyAwd-S22](https://go.las.illinois.edu/FacultyAwd-S22)





# THE LIFELONG CALLING OF THE BIRDS

Mark Hauber's research deepens our understanding of the avian mind



As an interviewer, I've always felt there's one question that tells me pretty much everything I need to know about a person. It's not about who they root for in the playoffs or their latest TV binge. It's just nine simple words. "Are you a dog person or a cat person?" After spending some time chatting with Mark Hauber, however, I've decided I may have to add another category to the mix. Because Hauber is unapologetically and unequivocally a bird person.

"I always wanted to study birds" said Hauber, the Harley Jones Van Cleave Professor of Host-Parasite Interactions at the University of Illinois. "When I was five years old, I wanted to study birds. Now that I'm 49, I still want to study birds."

Fortunately, he was blessed with a mother who recognized his interests. "My mom was a biology and music teacher, so she understood my passion and she fostered it," he said. Thanks to her, his youth was happily spent studying the animals he loved, whether it was bird-watching expeditions as a small child or attending a bird-banding camp when he grew older. While his interests were always clear, however, his direction wasn't.

"I almost became a vet in Hungary, because I didn't know that you could study the basic biology of birds," said Hauber. "But then I got a scholarship to go to Yale out of high school, and I've been an ornithologist ever since."

After an undergrad at Yale, a doctorate at Cornell, a postdoc at the University of California, Berkeley, and a first faculty job in New Zealand, Hauber landed in New York, where his career flourished. He became a fellow in what is now the American Ornithological Society and editor-in-chief of its publication, "The

Auk: Ornithological Advances." He also rose through the teaching ranks, becoming associate vice chancellor for research at the City University of New York. After nearly a decade, he had a comfortable, well-established routine. And then, Illinois came calling. "I had a good life in administration," said Hauber, "but I wanted to get back to research and do more hands-on experiments and run a bigger lab, and

leaving the unsuspecting hosts with all the parenting responsibilities. Hauber describes the whole process as a "co-evolutionary arms-race," in which it becomes essential for the host species to distinguish the parasite's eggs from their own in order to survive. From simple observation, researchers have long known that some hosts reject parasites eggs, but the exact mechanics of that rejection have been

“When I was five years old, I wanted to study birds. Now that I’m 49, I still want to study birds.”

that was the opportunity that Illinois offered me." Since arriving at Illinois in 2017, Hauber has held an endowed chair in the Department of Evolution, Ecology, and Behavior, which is part of the School of Integrative Biology. He likes the position, because it combines his love of teaching with a passion for research. The main focus of that research is understanding how birds recognize their friends and their enemies, and he does that largely by exploring one of the most intriguing relationships in nature, that between a brood parasite and its host.

Brood parasites, like cowbirds, cuckoos, and whydahs, are the ultimate "hands-off" parents. Instead of raising their young like most species, they deposit their eggs in the nests of other birds,

a mystery. "What I mainly search for is sort of a brain template for eggs," explained Hauber. "Just like faces are super important for humans, I think eggs and egg shapes are very important for birds." Using 3D printed eggs in a variety of shapes, colors, and textures, Hauber and his fellow researchers have already confirmed what may seem intuitive: Birds are more likely to reject eggs that are less "egg-shaped" or similarly colored to their own. But now, they're going deeper, exploring the physiological basis of egg rejection.

"We knew a lot about how the eyes perceive the eggs but we know very little about between what happens when the eye perceives the eggs and the brain says 'must reject this egg,'" Hauber said. "And that's sort of the process that I'm really interested in uncovering while I'm at Illinois."

Hormones, said Hauber, could play a role. "We now know that stress hormones are involved in responding to foreign eggs in the nest, and if you can modulate them with injections or extra manipulations, you can change the pattern of egg rejection or acceptance by robins, in response to corticosteroids for instance."



Thick-billed murre eggs. (Photo by L. Brian Stauffer.)



His observations come from studying birds in the lab as well as their natural habitat, which can come with its share of hazards. You’ve probably heard of “Angry Birds,” but Hauber has actually met them. “Robins can be really quite aggressive and attack you,” said Hauber, who once had a fake egg returned just minutes after deployment. “We were literally walking away from the nest and the robin flew by and dropped the egg, hitting my colleague on the shoulder.” Get on a robin’s bad side, laughs Hauber, and they will hate you for life.



Mark Hauber’s research includes analyzing bird eye size. At top: the common cuckoo. Bottom left: European robins. Bottom right: European bee-eaters. (Photos by Tomas Grim.)

Over the years, he has turned his semi-perilous adventures into nearly 350 peer-reviewed publications documenting everything from the odd behavior of fur-plucking titmice to the shape dynamics that keep murre eggs from rolling off cliffs. A fair number of recent additions were penned during the pandemic while he was in Germany and everything was locked down except grocery stores and bakeries. “I ate a lot of good bread,” says Hauber, joking that he’s discovered a positive correlation between his body weight and the number of papers he writes a year.

“One of his most interesting projects was a coffee table book called “The Book of Eggs: A Life-Sized Guide to the Eggs of Six Hundred of the World’s Bird Species.”

Hauber said that book opened a new interest in eggs that could provide the springboard for future research. And while much of that research will continue to take place in the field, Hauber said the real trend in ornithology, like many other field of science, is toward big data and the study of genetics.

Increasingly, pith helmets and binoculars are being joined by more sophisticated tools, like the Bruker 9.4 Tesla preclinical MRI system at the Beckman Institute for Advanced Science and Technology at U of I that gives researchers unprecedented insights on the internal structure of the brain. According to Hauber, the big discoveries of the future will probably be found in the smallest details.

“We are going molecular fulltime,” said Hauber. Through the Bird 10,000 Genomes (B10K) Project, Hauber was a member of the team of scientists who have already sequenced the genomes of 363 bird species, representing 92.4 percent of all avian families, and they eventually hope to create a full genetic portrait of all 10,500 known species. “I think we will have a complete genomic biology of birds,” he said. “We’ll probably have a complete transcriptomic biology, which is gene activation, or what the genes do, and hopefully we’ll be able to manipulate those at the molecular level to ask the same questions people are asking now with mice and fruit flies.”

This is where advanced resources, like the Roy J. Carver Biotechnology Center at Illinois, really come into play, opening new doors into genomic research. “I’m really grateful for those facilities at Illinois as well,” said Hauber, who’s excited to understand how behavior shapes genes and vice versa.

In addition to becoming more advanced,



Mark Hauber observes a takahe, a giant flightless rail in New Zealand, while he was a faculty member at the University of Auckland. (Photo provided.)

Hauber says that ornithological research is also getting younger, with PhD students achieving more at an earlier age. “I have some really young students who are just as accomplished as I was five or 10 years later in my career, which is really impressive.”

Hauber is currently representing his fellow ornithologists at the Wissenschaftskolleg zu Berlin, an advanced institute connecting scholars from a wide range of fields, including science, theology, and philosophy. It was towards the end of our discussion that I decided to put my philosophy of pet ownership to the test, asking the esteemed behavioral ecologist about his personal pets.

Unsurprisingly, he’s owned many interesting birds over the years, including painted finches from Australia, and pin-tailed Wydahs, which grow a 12-inch tail and put on dazzling helicopter displays during mating season. The surprising part is that he doesn’t give them names. Not because he’s a dispassionate scientist, but the opposite. “Birds don’t live as long as you want them to do,” said Hauber. And even for an objective scientist like Hauber, there’s always a little sadness when you have to say goodbye.

By John Turner

# A profound view of politics

Samantha Frost challenges established concepts of politics and what it is to be human



**SAMANTHA FROST** is not your typical political analyst. Her insight into politics stem from 17th century philosopher Thomas Hobbes to molecular and cellular biology. The professor of political science and gender and women’s studies and author of “Biocultural Creatures: Towards a New Theory of the Human,” reconceptualizes politics and human identity.

## What do you study?

My area of expertise concerns the ways that our understandings of embodiment shape and are shaped by our understanding of what it is to be a person or a political actor. Throughout the history of Western thought, questions about who can be considered a political actor or citizen and what citizenship entails have shifted in concordance with ideas about how our bodies work and the moral and political values attributed to different facets of our bodies.

## What are you working on now?

I am working on a project called “The attentive body” in which I blend philosophical and biological research to argue

that the biological processes through which bodies transform themselves are not just mechanistic responses but instead are interpretive or meaningful. We tend to think about the neurological system as the primary means by which bodies perceive and make meaning of the world. But I focus on molecular scale processes that regulate how genes are used to make and remake our bodies daily and over time. [This] requires that we rethink where perception takes place, what a self is, and where a self is located in the body.

## What’s the impact of your work?

Even though the main thread of the work is quite abstract, it gives us insight into the ways that gender and racial discrimination, environmental racism, and workplace inequality affect people’s physical and mental health as well as their participation in community life and politics. Sometimes the work of profound political transformation requires a profound change in the way that we think.

By Dave Evensen



# RESEARCH IN LAS

From new books to new research institutes, exciting discoveries are occurring every day in LAS. For more about these and other stories, visit [las.illinois.edu/news](https://las.illinois.edu/news)



## How asking for help can benefit (or hurt) your job review

The mechanics of seeking help on the job aren't clearly understood by managers or employees. A new paper by **Yihao Liu**, (right), a professor of psychology and labor and employment relations, and graduate student **Fan Xuan Chen** said that autonomous help-seeking—when an employee solicits help to master a task—is positively related to supervisor performance ratings. But asking a colleague to swoop in and immediately solve a problem is negatively related to how those help-seekers are perceived.

[go.las.illinois.edu/Asking-S22](https://go.las.illinois.edu/Asking-S22)

## MacArthur Foundation grant to help U of I reduce disparities in healthcare



A \$500,000 grant will help reduce disparities in healthcare through a unique new training program led by **Ruby Mendenhall**, professor of sociology and African American studies and associate dean for diversity and democratization of health innovation at Carle Illinois College of Medicine. Mendenhall and her research team will create programming and wellness tools, including art, to foster healing from racial trauma such as police killings, gun violence, and higher rates of COVID-19 deaths. The programming will center around the health and wellness of underrepresented high school students and young adults living in Chicago.

[go.las.illinois.edu/MFG-S22](https://go.las.illinois.edu/MFG-S22)

## Study: Fluorescent light clarifies relationship between heat stress and crop yield

Illinois researchers found that fluorescent light sensors can detect the otherwise invisible signs of high-temperature stress in soybeans and that this stress is linked to a reduction in crop yield. This study establishes a correlation between heat stress, sun-induced chlorophyll fluorescence, and grain quality and clarifies how heat stress affects photosynthetic performance and crop yield. Co-authors of the study include **Carl Bernacchi**, a professor of plant biology and crop sciences and a research scientist with the U.S. Department of Agriculture's Agricultural Research Service at the U of I, and **Lisa Ainsworth**, a plant biology professor and U.S. Department of Agriculture scientist at Illinois.

[go.las.illinois.edu/CropYield-S22](https://go.las.illinois.edu/CropYield-S22)



## New institute to study climate change and disasters



A new \$15-million institute at the University of Illinois Urbana-Champaign will work to better understand the risks and impacts of climate change and disasters. The Institute for Geospatial Understanding through an Integrative Discovery Environment will receive the funding as part of the National Science Foundation's Harnessing the Data Revolution. **Shaowen Wang**, head of the Department of Geography & Geographic Information Science, said the goal is to revolutionize theories, concepts, methods, and cyberinfrastructure tools to address sustainability challenges such as biodiversity, food security, and water security.

[go.las.illinois.edu/Climate-S22](https://go.las.illinois.edu/Climate-S22)



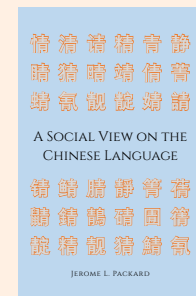
## Department of Religion receives \$1 million to establish program in Jain studies

Advocates from across the country are partnering with universities, including the University of Illinois, to include the study of Jainism, a South Asian religion that emphasizes nonviolence, non-possessiveness, and respect for other viewpoints. The **Department of Religion** at the University of Illinois is receiving \$1 million from donors to establish Jainism as a course of study. It's the largest gift that the department has ever received.

[go.las.illinois.edu/Jain-S22](https://go.las.illinois.edu/Jain-S22)

## Books in LAS

**"A Social View on the Chinese Language,"** by **Jerome Packard**, professor emeritus of East Asian languages and cultures and linguistics, is intended to be a linguistic introduction to the Chinese language for the general reader and can be used in beginning-level Chinese linguistics courses. It is different from other Chinese linguistics surveys because it offers a view into linguistic phenomena that are also related to human behavior and society. (Peter Lang International Publishers)



## "The Corporate Terminologist,"

by **Kara Warburton**, lecturer in translation and interpreting studies, is the first monograph that addresses the principles and methods for managing terminology in content production environments that are both demanding and multilingual, such as those found in global companies and institutions. It describes the needs of large corporations and how those needs demand a new, pragmatic approach to terminology management. (John Benjamins Publishing Company)



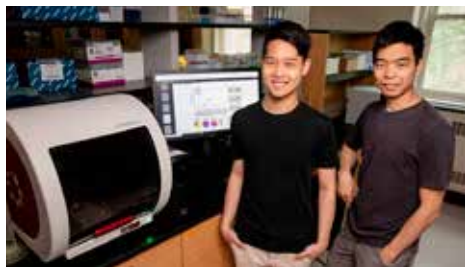
## "Turbulent Streams: An Environmental History of Japan's Rivers, 1600–1930,"

by **Roderick Wilson**, professor of history, describes how the rivers of Japan are both hydrologically and historically dynamic. Neither a story of technological progress nor environmental decline, this history introduces the concept of environmental relations as a category of historical analysis both to explore these fluvial interactions and reveal under-appreciated dimensions of Japanese history. (Brill)





## Antibodies from original strain COVID-19 infection don't bind to variants



Timothy Tan (left) and professor Nicholas Wu.

People infected with the original strain of the virus that causes COVID-19 early in the pandemic produced antibodies to bind to the spike protein on the virus's outer surface. However, those antibodies don't bind well to newer variants,

a new study from the University of Illinois Urbana-Champaign found. Characterizing what kinds of antibodies the body is most likely to make to fight a natural infection is an important roadmap for vaccine design, said study leader **Nicholas Wu**, a professor of biochemistry. His research team published its findings in the journal *Nature Communications*.

[go.las.illinois.edu/Antibodies-S22](https://go.las.illinois.edu/Antibodies-S22)

## When will teens recover from COVID-19?



Social isolation is particularly hard for teenagers. Since shutdowns began in March 2020, rates of anxiety and depression amongst teenagers in the United States have skyrocketed. **Karen Rudolph**, professor of psychology, said the effects of quarantines and isolation have caused mental health issues even for teens who were not considered to be at risk. "It's possible that the kids who

were most at risk to begin with are going to suffer more than normal due to COVID-19," Rudolph said. "But it's also possible for some teenagers who might not have been at risk at all."

[go.las.illinois.edu/C19teens-S22](https://go.las.illinois.edu/C19teens-S22)



## Black hole size revealed by its eating pattern

The feeding patterns of black holes offer insight into their size, researchers report. A new study revealed that the flickering in the brightness observed in actively feeding supermassive black holes (SMBHs) is related to their mass. When dormant and not feeding on the gas and stars surrounding them, SMBHs can be detected only through their gravitational influences. The new study, led by astronomy graduate student **Colin Burke** and professor **Yue Shen**, uncovered a definitive relationship between the mass of actively feeding SMBHs and the characteristic timescale in the light-flickering pattern.

[go.las.illinois.edu/BlackHole-S22](https://go.las.illinois.edu/BlackHole-S22)

## Professors win awards to study the gut-brain connection

Two University of Illinois professors have been awarded funding in the first year of an initiative to better understand the connections between the gastrointestinal tract and the nervous system. Professors **Mei Shen**, from the Department of Chemistry, and **Kai Zhang**, from the Department of Biochemistry, will each receive \$55,000 from the inaugural Scialog: Microbiome, Neurobiology and Disease to assist their ongoing research on the gut-brain axis. The initiative has brought together researchers whose work is contributing groundbreaking knowledge to the gut-brain axis at the chemical, microbial, and immunological level.

[go.las.illinois.edu/GutBrain-S22](https://go.las.illinois.edu/GutBrain-S22)



Mei Shen (left) and Kai Zhang.



## Researchers examine the effects of small, rude behavior

Most of us have, at some point, experienced workplace incivility – small, rude behaviors of ambiguous intent. Recent work from the Beckman Institute for Advanced Science and Technology and collaborators has theorized on the biological consequences of workplace incivility. "It's well-established that workplace incivility is a stressful experience that can undermine people's work and wellbeing. But can it get into their bodies? We suspect it can, via stress physiology," said **Kathryn Clancy**, professor of anthropology.

[go.las.illinois.edu/Incivility-S22](https://go.las.illinois.edu/Incivility-S22)

## College of LAS researchers receive funding to research systemic racial inequities and injustices



Several LAS researchers have received funding for projects as part of the U of I's Call to Action Research Program to Address Racism and Social Injustice. They're the inaugural recipients of the program, which represents a \$2 million annual commitment by the university to prioritize research focused on systemic racial inequities and injustices. Chancellor **Robert Jones** announced the program in July 2020. Projects range from combating anti-Asian racism to creating certificate programs for community health workers and equity, access, and representation in STEM fields. See a full list at [go.las.illinois.edu/Injustices-S22](https://go.las.illinois.edu/Injustices-S22)

## Books in LAS >>>

Composed in the first century CE, **"Silius Italicus' Punica: Rome's War with Hannibal,"** translated by **Antony Augoustakis**, professor of classics, and **Neil Bernstein**, tells the story of the Second Punic War between Rome and Hannibal's Carthage (218-202 BCE). It is not only a crucial text for students of Flavian literature, but also an important source for anyone studying early Imperial perspectives on the Roman Republic. (Routledge)



**"Casting a Giant Shadow,"** edited by **Rachel S. Harris**, professor of comparative and world literature, and **Dan Chyutin**, is a collection of articles that embraces the notion of transnationalism to consider the limits of what is "Israeli" within Israeli cinema. It offers a new understanding of how cinema has operated artistically and structurally in terms of funding, distribution, and reception. This volume uses the idea of transnationalism to challenge the concept of a singular definition of Israeli cinema. (Indiana University Press)



**"The Gilded Edge,"** by **Catherine Prendergast**, professor of English, tells the story of a young poet, a real estate developer, and his wife through the lens of the two women involved in the love triangle, and it shows the challenges Prendergast faced while researching the details of their lives in a society dominated by men. (Penguin Random House)







# A NEW FUTURE FOR NUMBERS

The College of LAS builds and innovates  
to be a leader in data science

When Disha Hegde was little, her father, a software engineer, would play math games with her. He wanted her to learn mathematical and logical concepts, and it worked: by the time she was in fifth grade she was known as the riddle queen and was asked to give other students a chance to answer her teacher's riddles. She always got them right.

So where does a riddle queen go to college? In high school she became interested in physics, and she chose to come to the University of Illinois to major

in mathematics and minor in physics.

"I want to continue learning about physics and maybe make some discoveries of my own," said Hegde, now a senior. "A solid foundation of math skills should help me do that."

Hegde is part of a wave of students who have, for myriad reasons, come to the U of I to study statistics and mathematics in growing numbers during the past few years. Part of that trend is societal, with skyrocketing demand for analysts and others who

can interpret vastly growing amounts of information for companies, government agencies, and other organizations. The Bureau of Labor Statistics projects that occupations in mathematics and statistics will grow by 33 percent between now and 2030.

Part of the growth also stems from strategic moves at the university to accommodate growing interest in data science, which incorporates mathematics, statistics, computing, and information science to interpret data. The Departments of Mathematics

and Statistics were among the first to offer degrees that combined their coursework with courses in computer science provided by the Department of Computer Science in Grainger College of Engineering. The statistics and computer science major and the mathematics and computer science major were part of the inspiration for the CS+X program which allows students to pursue a flexible program of study incorporating computer science with technical or professional training in the arts and sciences.

The statistics and computer science major and mathematics and computer science major were created in the 1980s and 1990s, but they have exploded in popularity in recent years.

"What we were finding as (we) met with employers or with people from outside the university is that they were asking, 'Can you introduce me to students whom I can hire to deal with my data issues?'" said Matt Ando, associate dean for life and physical sciences in the College of LAS. "It's a big deal. Since about 2014, utilities, chemical engineering firms, finance firms, agriculture firms—really the whole spectrum of employers that I've met with during my time at Illinois—started consistently asking us how we can introduce students to how to help with data."

The university responded, and the result, in terms of undergraduate enrollment, has been enthusiastic. Between fall 2011 and fall 2021, according to the university, the number of undergraduates majoring within the Department of Mathematics grew from 826 to 1,126, making mathematics the second-largest major in the College of LAS, after psychology. More tellingly, during that same period, the number of math and computer science majors within the department grew from 72 to 275.

The mathematics and computer

science major includes the core courses that computer science majors take, with technical electives pre-selected to be mathematics, according to the Department of Mathematics.

The growth has been even more dramatic in the Department of Statistics, where undergraduate enrollment grew from 153 in 2011 to 741 in 2021. The number of statistics and computer science majors grew from 16 to 313 over the same time period. In 2019, the Department of Statistics granted more undergraduate degrees—315—than any other university, including other top programs such as UC-Berkeley, Purdue, UC-Davis, and UCLA, according to the American Statistical Organization.

**The Bureau of Labor  
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now and 2030.**

"Our department has experienced very rapid growth in the last 10 years," said Bo Li, chair of the Department of Statistics. "Our graduate program also expanded quite a lot. We are increasing our faculty size to match the growth of students."

Alison Champion, associate director of undergraduate studies in the Department of Mathematics, said that when she began advising at U of I in the early 2000s, the college had three or four academic advisors for all incoming first year students in mathematical and physical sciences. Now, they have five or six summer orientation advisors for first year students in mathematics and statistics alone. The advisors were

adept at Zoom even before the pandemic as they used it to consult growing numbers of international and out-of-state students.

The increase in interest in programming-oriented jobs has certainly increased the number of math majors completing computer science coursework, but the statistics and computer science major is the one that has really taken off," Champion said. "Corporate interest in data analytics—much information (is being) collected about consumers, but what do the data tell us?—is huge now."

As indicated by career data on young alumni, these programs have been successful in preparing students for the field. According to the Illini Success report, which gathers data on recent U of I alumni, 90 percent of mathematics and statistics undergraduates who graduated between December 2019 and summer 2020 had secured a first destination (either employed or pursuing further education) within six months of commencement. Their average starting salary was \$79,590, the highest of any category on campus outside of computer science, computer engineering, and physics.

According to Illini Success, the companies hiring the most mathematics majors over the past three years include Amazon, Allstate Insurance Company, Deloitte, EY, Facebook, Microsoft, PricewaterhouseCoopers, and State Farm Insurance (in addition to the mathematics and computer science option, the department also offers majors in actuarial science, applied mathematics, teaching in mathematics, and mathematics). The top employers of recent statistics alumni (the department offers both statistics and statistics and computer science majors) are similar, with Microsoft and State Farm topping the list, followed by



companies such as Deloitte, Discover, Experian, Facebook, and Synchrony.

The university and College of LAS continue to adjust for the growth in these areas, particularly in data science. The Altgeld and Illini Hall Project, the largest capital project in the history of the U of I, calls for the renovation of Altgeld and a new, six-story building to be constructed on the site of Illini Hall. This is meant to accommodate growing enrollment and demand in these fields; the new building will also include a data science center.

Ando said that the Illinois Board of Higher Education recently approved four new academic majors for data science at U of I. The courses for the new majors are set to include those in statistics, mathematics, computer science (offered by the Grainger College of Engineering) and information science (offered by the iSchool).

“All of those courses are being developed to be the core of a broadly inclusive data science curriculum,” Ando said. “We’re both learning the lessons from the success of CS+ and trying to respond to the intense interest in data science.”

How else do the departments and academic units maintain

this growth? Good, old-fashioned human connections help. Alejandro Martinez (BS, statistics, ’21) switched his major from mathematics to statistics in his sophomore year. With help from staff and professors, the switch went smoothly and now he works as a data analyst at JP Morgan Chase.

“The advising staff as well as the professors have helped me greatly throughout these past few years, and they have always been supportive of me. I have always found them to be extremely kind,” he said.

The university’s growing reputation in this area is fueling the growth, too. Nithin Reddy, who is majoring in statistics and journalism, has always been a sports fan and became interested in sports statistics. He realized that the best path for him was a statistics program; he chose Illinois.

“For starters, U of I has a great statistics program,” he said, explaining his choice. “There are many great faculty and plenty of opportunities in research and (registered student organizations). Also I didn’t want to be far from home, and being from the Chicagoland area, Illinois was a great fit.”

By Dave Evensen

**LEARN MORE** about the Altgeld and Illini Hall project to modernize and grow spaces devoted to data science and other mathematical sciences at [go.las.illinois.edu/Altgeld-illini](https://go.las.illinois.edu/Altgeld-illini)

## Growing support for programs in mathematics and statistics

With the growth in statistics and mathematics programs at the University of Illinois has also come an increase in outside support for the programs during recent years. This support goes directly to student programs to enhance their education.

“There has definitely been an increase in corporate investment and engagement in both departments,” said Tracy Parish, director of corporate and foundation relations for the College of Liberal Arts & Sciences.

### Some of the recent partnerships and support includes:

**Illini Statistics Club Datathon.** Student participation in the event that exposes students to real-world data science problem-solving has grown fivefold, to more than 350, since it began in 2018. Corporate sponsors include Synchrony Financial, State Farm, John Deere, Sandia National Laboratories, Citadel, and Procter and Gamble. The event has generated \$56,000 in revenue since 2018.

Mutual of Omaha and Anthem have collectively invested \$10,000 in statistics and mathematics through the **LAS Corporate Affiliates Program**. Anthem led a health analytics workshop, and both companies are participating in class presentations and the Statistics and Mathematics Career Forum.

The **Illinois Risk Lab** in the Department of Mathematics has partnered with numerous companies on consulting projects on a broad range of topics, generating \$51,000 in support from corporate partners in the last year.

The **Actuarial Science Program** in the Department of Mathematics recently launched a mentorship and exam fee/study course award program in collaboration with Milliman. This program covers the cost of study courses and fees for actuarial exams and also provides students with a mentor from the company. The program received \$20,000 in investment for the first year.

The **Center for Risk Science, Financial, and Insurance Technology**, which is launching as a joint venture with Gies College of Business in 2022, will focus on developing and supporting interdisciplinary education and research in risk sciences and cutting-edge solutions in financial and insurance technology. The center’s research will focus on four core interdisciplinary research areas including the intersection of the finance and insurance sectors with cybersecurity, artificial intelligence, distributed technology, and disaster mitigation. The college expects commitments of \$25,000 to \$50,000 annually from corporate members.

Support from other areas as grown as well. The **Department of Mathematics** began a merit-based scholarship program a decade ago; it has raised more than \$300,000 in support to date, according to the Office of Advancement.

➤ **IF YOUR COMPANY** is interested in engaging LAS students, please contact Tracy Parish, director of corporate and foundation relations at the College of LAS, at [tparish@illinois.edu](mailto:tparish@illinois.edu).



➤ **Venetria K. Patton** joined the University of Illinois as the Harry E. Preble Dean of the College of Liberal Arts & Sciences in August. She spoke on her background and the future of LAS.

### Where are you from?

I was born in Copenhagen, Denmark. My father was in the U.S. Navy and our family moved around a lot before settling in Bremerton, Washington. I earned my bachelor’s degree in English at the University of La Verne and my master’s and PhD in English at the University of California-Riverside. In 1996 I joined the University of Nebraska, Lincoln, as a professor of English and African American studies, and in 2003 I joined Purdue University. I stayed there until this great opportunity presented itself at the College of LAS. ”

### What is your field of study?

Though my role now is primarily overseeing the operations of the college, my academic expertise is African American literature, diasporic women’s literature, the Harlem Renaissance, 19th century American literature, and Black feminism. ”

**SUBMIT A QUESTION** for Dean Patton and she may answer it in the next magazine. Email it to [las-news@illinois.edu](mailto:las-news@illinois.edu) and put “Ask Dean Patton” in the subject line.

### How have you spent your time since arriving in Champaign-Urbana?

It’s been primarily about settling in—and learning. Personally, we bought a new home, and on campus I’ve spent my time meeting all the many people in LAS. I was happy to organize a college open house in December that allowed me to see many new faces. It hasn’t been easy to introduce myself properly during the pandemic, but it is so important right now to let people know who I am and how passionate I am about their success. ”

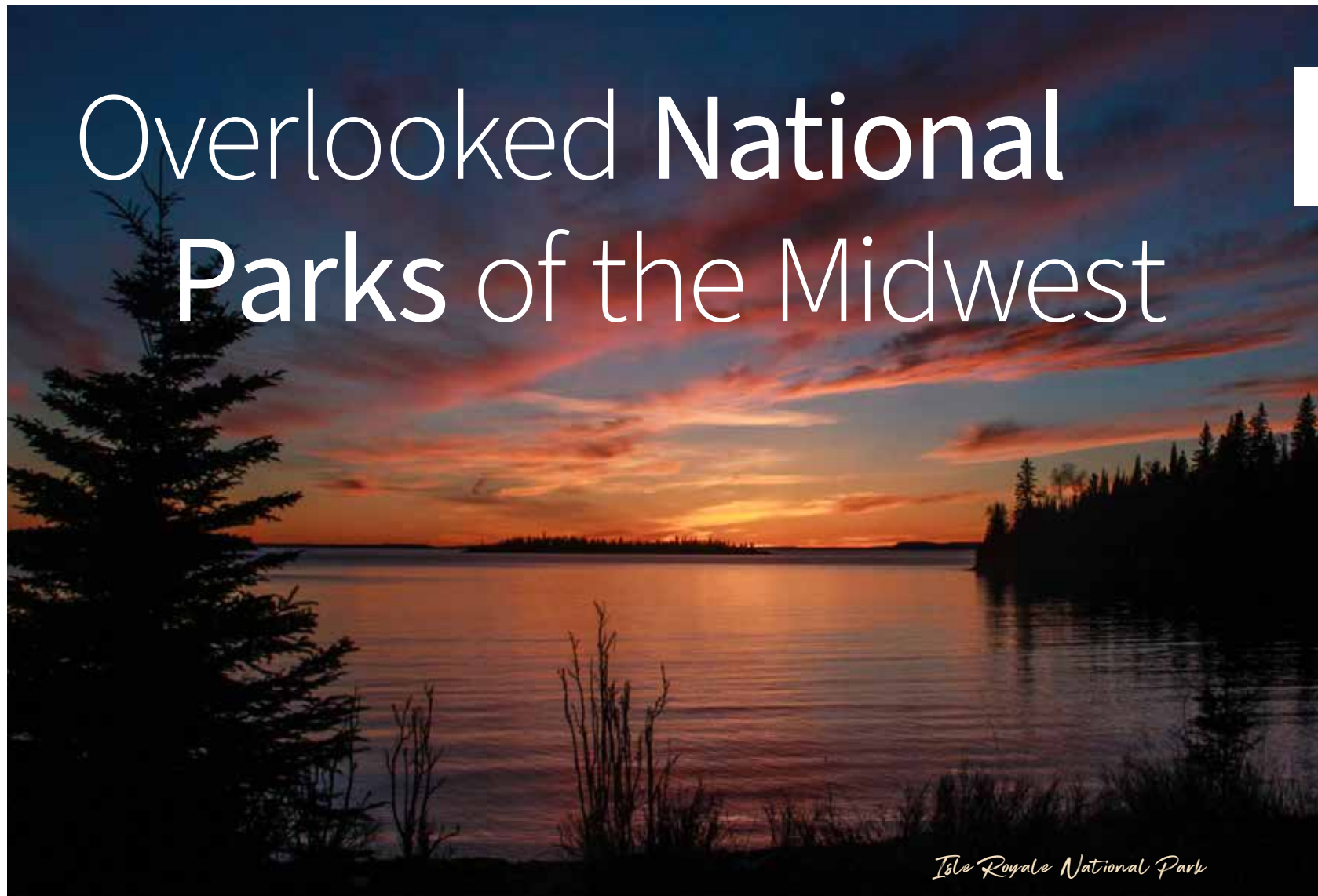
### What do you envision for the future of the College of LAS?

It’s a bright future! The pandemic remains our main challenge, but we will move beyond it, and when we do the liberal arts and sciences will be even more vital. COVID-19 has put every facet of our society to the test. The value of a well-rounded LAS degree is more evident every day. ”

By Dave Evensen



# Overlooked National Parks of the Midwest



*Isle Royale National Park*



*Tallgrass Prairie National Preserve*



*Pipestone National Monument*

**EDITOR'S NOTE:** We asked **Robert Pahre**, professor of political science who teaches and writes about national parks, to share his favorite national parks of the Midwest. Here are his replies, in his own words.

## **BEST PRAIRIE**

### **Tallgrass Prairie National Preserve, Kansas**

Tallgrass Prairie uses both bison and managed fires to keep the tallgrass prairie as it once was, and it also uses cattle as a partial substitute for bison. The park has a network of trails through this part of the Flint Hills region, with grasses, wildflowers, and small woodlands to explore. It also maintains a suite of historic buildings, including an historic schoolhouse and a gigantic barn.

## **BEST HISTORIC SITE**

### **Grand Portage National Monument, Minnesota**

This park preserves the site of a nine-mile portage that connects the Great Lakes to the interior regions of North America. Indigenous nations had long used Gichi-Onigaming, the Great Carrying Place, and it became a key link in the global fur trade network from 1731-1804. The park includes a new heritage center that reflects ongoing cooperation between the National Park Service and the Grand Portage Band of Chippewa Indians.

## **BEST INDIGENOUS HERITAGE**

### **Pipestone National Monument, Minnesota**

The National Park Service protects a site that many Indigenous peoples have long used to quarry stone to carve into sacred pipes. Though it's traditionally associated with the peoples of the prairies, any member of a federally-recognized tribe can request a permit to quarry the stone. This remains an active cultural landscape, with people carving pipestone inside the visitor center while others quarry the stone outside.

The quarriers avoid working in the hottest summer months, so call the park for recommended times to visit.

## **BEST LONG TRAIL**

### **Ice Age National Scenic Trail**

While the Appalachian Trail gets all the press, and the Pacific Crest Trail gets all the movies, I'd recommend the 1,200-mile Ice Age Trail. You can jump on the trail in cities like Madison, Wisconsin, or choose more remote sections in Wisconsin's northern woods. The trail winds along the edges of the glaciers of the last Ice Age, showing off two dozen different features of glacial geology.

## **BEST NATIONAL PARK**

### **Isle Royale National Park, Michigan**

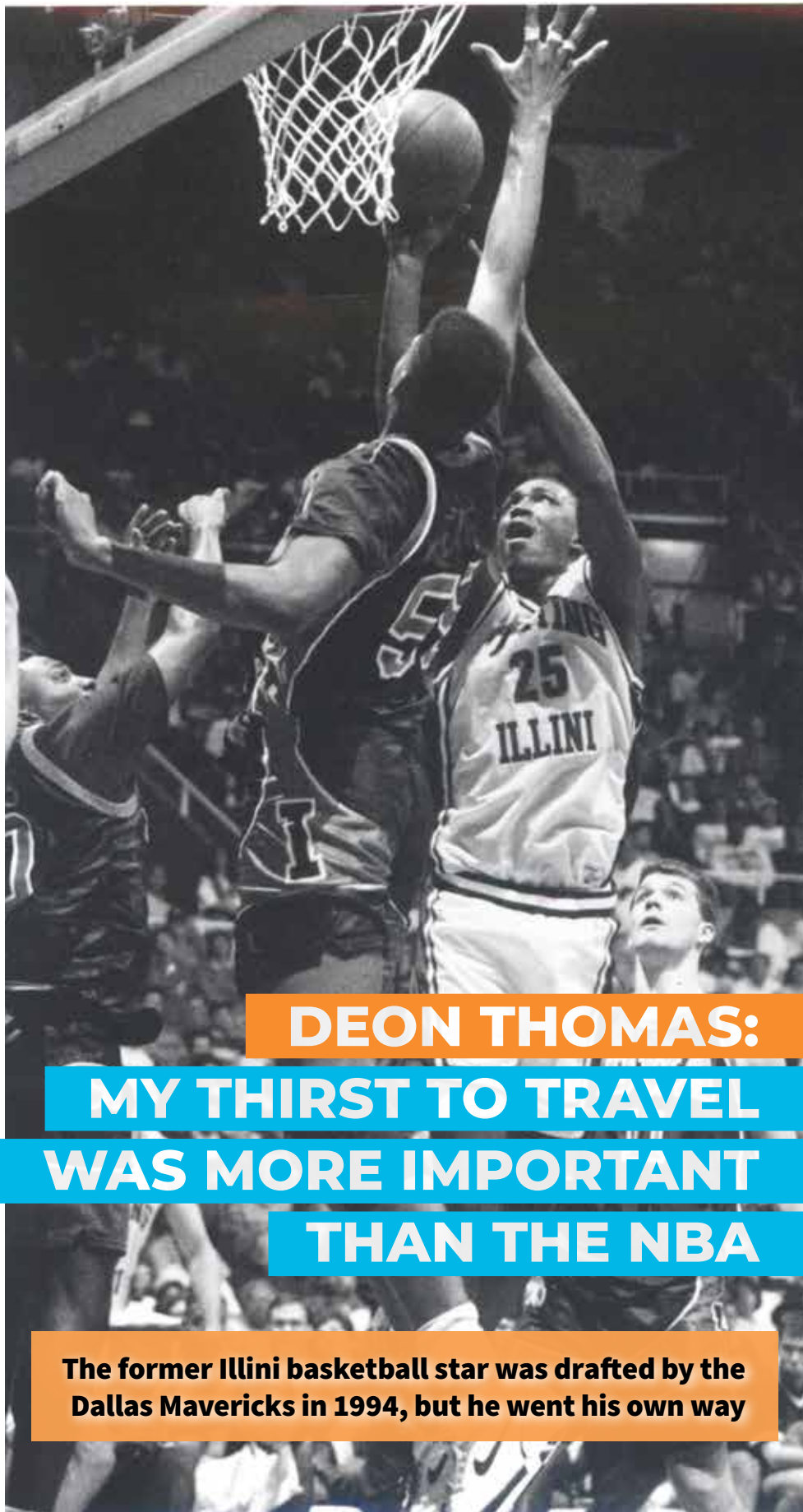
Though it's a "crown jewel" of the national park system, Isle Royale gets fewer visitors than any other national park in the Lower 48. Its location in the middle of Lake Superior makes it hard to reach. While it has a lodge and some cabins, it's really a backpacking park. Along the shorelines backpackers can use their tents or stay in a three-sided shelter. Isle Royale offers a remarkable mix of forests of the "North Woods" type, abundant beaver lodges and moose, and the chance to hear (or see) a wolf.

Images courtesy of Robert Pahre. For more images please visit [go.las.illinois.edu/NatParks-S22](https://go.las.illinois.edu/NatParks-S22) and click the links in the captions.



Pahre also shared his list of **best National Parks to visit nationwide**. Check out the video at [go.las.illinois.edu/NatParksVid-S22](https://go.las.illinois.edu/NatParksVid-S22).





DEON THOMAS:

MY THIRST TO TRAVEL

WAS MORE IMPORTANT

THAN THE NBA

The former Illini basketball star was drafted by the Dallas Mavericks in 1994, but he went his own way

It makes sense to think that successful people are living out a childhood dream. With **Deon Thomas** (BS, '94, political science), that's not true.

"You look at your life and you think how it's going to be, (and) when it turns out not to be the way you thought, it's kind of mind blowing," Thomas said, "But I wouldn't change it for anything in the world."

The Illinois Athletics Hall of Famer and College of LAS alumnus is the associate director of development for University of Illinois Athletics. He is also an analyst for the Big Ten Network and Fighting Illini Sports Network, where he covers the basketball team that he set records for during the 1990-1994 seasons. When the 6-foot-9 former Illinois Mr. Basketball graduated, he sat atop the U of I men's basketball record lists for career points, blocks, and field goals made.

Thomas's career blocks record was broken by Nnanna Ekwu in 2015, but his career points and field goal records still stand. He's also second in free throws and fourth in rebounds.

He's worked as a radio and TV analyst since he retired from coaching in 2016 (he coached at Lewis and Clark Community College and University of Illinois Chicago). Thomas credits his broadcasting partner, Brian Barnhart, with teaching him the ropes early in the process. Thomas has developed a liking for his new line of work, specifically radio.

"You have to be even more detailed in radio," Thomas said, "while making sure that you keep it at a level so the novice can understand it. It's those complexities that I enjoy."

It wasn't always Thomas's dream to play basketball. Even at a young age, Thomas had scholarly ambitions. While accompanying his mother to a courtroom where she worked as a stenographer, Thomas found himself in awe of the judge.



Later when giving his eighth-grade graduation speech, Thomas announced his intention to become a U.S. Supreme Court justice.

It's a dream that Thomas said is rare among children, especially Black children in inner cities. Thomas grew up on the west side of Chicago, near the University of Illinois Chicago campus. He feels that without the experiences his mother provided him, such dreams would never have come to him.

"If you're looking at (the judge) from my neighborhood, you're not normally sitting out there with your mom working," Thomas said, "You're normally standing in front of him about to be sentenced or you're in some trial."

Throughout his life Thomas has looked for ways to broaden his experiences. Following his graduation from U of I, Thomas chose to play in Spain rather than accept a contract with the Dallas Mavericks, which drafted him 28th in 1994.

It helped that the Spanish team, Básquet Manresa, offered him a similar salary with the added bonus of paying his taxes for him. Still, his decision came down to more than money.

"My thirst to travel was more important than me playing in the NBA," Thomas said, "I still had this open search for knowledge, for learning cultures, because

I was thinking 'I'll play a few years and then I'll go back to law school.'"

After one season with Básquet Manresa, Thomas planned on returning to the U.S. and joining the Mavericks. The 1995 NBA lockout killed those plans and he returned to Spain, this time to playing for Club Girona.

That year Thomas met his future-wife Dafna, who was vacationing in Spain at the time. The two grew close over the year, Thomas said. When his second season ended and the Mavericks decided to restructure his contract for less money, his decision was easy.

**You look at your life and you think how it's going to be, (and) when it turns out not to be the way you thought, it's kind of mind blowing**

"I had a better deal in a place in Malaga, which is in the south of Spain which I just loved when would go there and play, so I chose that," Thomas said, "That was pretty much the end after that. I never looked back or even thought about coming back to the NBA after that."

These decisions were the foundation of a highly successful 14-year international pro career in six different countries. He helped Maccabi Tel Aviv win the Israel championship, the Israeli Cup, and the Euroleague championship twice.

Far left: Deon Thomas shoots over a defender from Iowa during his playing days at U of I.

Deon Thomas was named associate director of development for University of Illinois Athletics in 2019.

Thomas and Dafna married quickly, before he even met her family in Israel. When his contract with the Spanish club Caja San Fernando ended in 1998, Thomas got the opportunity to play in Israel for Maccabi Rishon LeZion, a team in Rishon LeZion.

That year he was engulfed in the culture of Dafna's family and their Jewish traditions. Though he grew up Christian, Judaism spoke to him at a deeper level.

"My grandparents and parents are Southern Baptist, so when I say I lived in the church, I mean we really lived there," Thomas said, "My family was tight, but we were nowhere near a close as my wife's family."

It was the feeling of togetherness, he said, that drew him to convert.

Thomas's oldest daughter was born in Spain and his youngest in Israel. They

both speak Hebrew better than he does, Thomas said. They all have dual citizenships, though they currently live in Naperville, Illinois.

Thomas hasn't played basketball in 13 years. Now at 50, he still thinks about his dream of becoming a justice. He has friends in the University of Illinois law school who have tried to convince him to enroll. It's not the right time, he said. But he still won't say no.

By Christian Jones





This sequence shows how, as Earth shifts between the sun and the moon, the resulting shadow appears as a reddish glow of reflected light.



## GOOD NIGHT, MOON

In November the moon put on a show not seen in 580 years: It hung in the shadow of Earth for more than six hours, creating the longest lunar eclipse since the 1440s. In this photo, Nicole Terzian and Wolfgang Struven, student members of the University of Illinois Astronomical Society, observe the so-called blood moon from the University of Illinois Observatory, where the organization hosted a telescopic viewing of the phenomenon. *Photos by Fred Zwicky*



# A landmark for chemistry and science

The history of Noyes Laboratory is rooted in fire, discovery, public service, and kindness

Sometimes the spark for something great is literally a spark. In August 1896 a thunderstorm rolled across east central Illinois and unleashed a lightning bolt on the roof of the U of I's Chemical Laboratory, with the resulting fire destroying much of the building. Out of the ashes rose one of the most renowned chemistry buildings in the field: **Noyes Laboratory**.

The nearly 120 year-old building needs little introduction for those in chemistry. Noyes is a mark of American scientific achievement, with 12 former students and faculty members who worked in the building eventually earning the Nobel Prize. Within its walls chemists have pioneered discoveries, helped vanquish disease, and provided the materials and

ideas necessary to win world wars. In 2002, the building was named a National Historic Chemical Landmark.

Its history is far from over. As occupants of the building like to say, there's always something new happening in Noyes. **Greg Girolami**, former department head, said that over the years Noyes evolved from a research and teaching facility to being primarily focused on teaching. That trend away from research recently reversed itself, however, when in 2016 it became home for the Center for Theoretical Chemistry. Noyes Laboratory's colorful past, however, is at the root of much that occurs there today.

We'll get to William Noyes, namesake for the building, momentarily. The story of Noyes Laboratory starts with

**Arthur Palmer**, the indefatigable head of the Department of Chemistry who served during the 1896 fire. After the disaster, Palmer presided over a rebuilding of the Chemical Laboratory (now Harker Hall) and led a years-long fight for a new building.

Palmer was a driven and principled scientist. A specialist on arsenic, he founded the Illinois State Water Survey to enable the department to help the state, according to Girolami. Many Illinois residents at the time drank surface and well water, and waterborne disease was common. A typhoid fever outbreak in 1891 killed some 2,000

people in Chicago. As noted by late campus historian Winton Solberg, after the 1896 fire Palmer picked through the ashes to recover documents and research findings, and for the rest of his life, in addition to his own research, he wrote annual reports on the Water Survey's activities to improve water quality in Illinois.

Palmer expanded academic programs for the then-growing field of physical chemistry. In the face of rapid industrialization, the department trained more future chemistry teachers, analysts, managers, and superintendents than ever before. At times Palmer despaired that they would never get a new building, but finally in 1901 the College of Science (which later became part of the College of LAS) declared the Chemical Laboratory "a disgrace" and the New Chemical Laboratory was built by 1902.

Palmer died just a couple of years later, at age 43. It's recorded in department history that he died of overwork. **L.P. Breckenridge**, a professor of mechanical engineering, recalled at Palmer's memorial service how the department head beamed upon learning the New Chemical Laboratory would be built.

"It hardly seems possible that it is true," Palmer said.

The university launched a search for a new department head, and President **Edmund James** eventually found in Baltimore, at Johns Hopkins University,

a prolific chemist named **William Noyes**. Noyes had grown up on the Iowa prairie, learning Greek while he plowed the fields and doing chemistry experiments with items obtained from the village apothecary, according to a biography written by the U of I chemist **Roger Adams**. He graduated from Grinnell College and went on to earn his PhD from Johns Hopkins in 1 ½ years,

spotted riding around town with his family in a two-seat coach pulled by a pony named Teddy, after President Theodore Roosevelt.

"The reputation of Illinois chemistry, the vigorous atmosphere for progress which he inspired, and his traditionally friendly attitude toward the growing staff will always remain as his lasting

**The reputation of Illinois chemistry, the vigorous atmosphere for progress which he inspired, and his traditionally friendly attitude toward the growing staff will always remain as his lasting contributions to the University of Illinois and American chemistry**

performing water analyses to pay his student expenses. He would later earn the Priestley Medal, one of the highest honors for a chemist.

By the time James found him, Noyes was already well into a successful career, but after some hesitation Noyes came to U of I in 1907. Over the next 19 years he led the department through an amazing period of growth, with the ranks of faculty, staff, and students growing dramatically. By 1926, when Noyes retired, the department was publishing an average of 44 papers per year, up from 15 per year when he first joined the university.

Noyes was a beloved figure on campus. Known for a serious, meticulous, sympathetic, and helpful manner, he inspired productivity and respect within the department. He was often

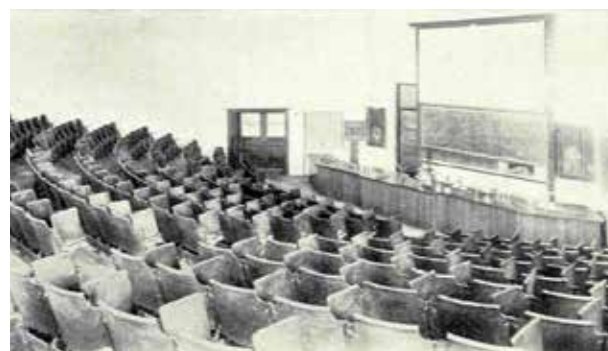
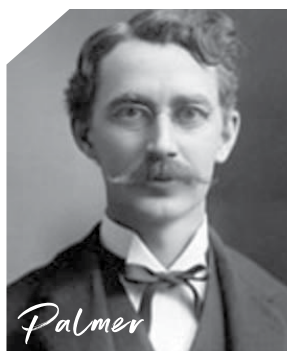
contributions to the University of Illinois and American chemistry," Adams wrote in his National Academy of Sciences biography of Noyes, in 1952.

In 1939, two years before Noyes died, the New Chemical Laboratory (which was expanded to its current size in 1916) was renamed Noyes Laboratory.

"So long as the university stands, the name of Professor Noyes will remain among its immortals," said **M.T. McClure**, dean of the College of LAS at the time, "among those who have devoted themselves to the mystery of the mechanism of nature."

By Dave Evensen, with additional reporting by Kimberly Belser

(From left) Arthur Palmer, Department of Chemistry head when the new building was constructed; 100 Noyes, "the pit," is the one large lecture hall in Noyes Laboratory that has existed since the building was constructed; William Albert Noyes and his sons on the Main Quad; Workers install the cornerstone for the east addition of Noyes Laboratory (then called the New Chemical Laboratory) before a crowd in 1914. The addition expanded Noyes to its current size. (All photos courtesy of the Department of Chemistry, except for William Noyes, from University of Illinois Archives.)





# LAS BY THE NUMBERS

## The gifts of opportunity

The College of LAS recently celebrated receiving **\$200 million in philanthropic support** for the With Illinois campaign (stretching from 2017 to the end of 2021). Here's a glimpse of who gave—and what they're supporting. (Numbers compiled in December 2021)

Total raised to date  
**\$201 million**



Number of donors  
**16,816**

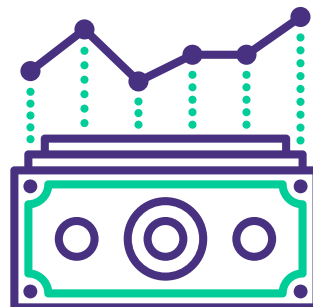


### Type of gift

**\$90 million** current use  
**\$106.6 million** in endowed gifts  
**\$5 million** other

### Who gave?

**\$96.6 million** from alumni  
**\$29 million** from foundations  
**\$15 million** from corporations  
**\$3.8 million** from faculty and staff  
**\$56.6 million** other (non-alumni, current students, matching gifts, and more)



### What are they supporting?



Source: LAS Office of Advancement

**\$27.9 million** for faculty chairs, professorships, awards, prizes, and fellowships  
**\$5.2 million** for facilities  
**\$5.1 million** for general student support  
**\$17.6 million** for graduate fellowships  
**\$52.2 million** for research (including \$15 million for research unrestricted)  
**\$36.8 million** for scholarships  
**\$28.1 million** in unrestricted support  
**\$28.1 million** other (lab support, museum exhibits, art, and more)

YouTube



Visit our **YouTube channel** to explore the College of LAS from a different perspective!  
[go.las.illinois.edu/YouTube](https://go.las.illinois.edu/YouTube)



»» **Marching Illini Feature Twirler showcases Homecoming 2021**



»» **Virtual tour of Altgeld Hall renovations**



»» **LAS Liftoff 2021: College of LAS Sights and Sounds**

**180,000**  
*strong*

**You're a member of one of the strongest and most brilliant groups in the country: the College of LAS alumni.** Learn more about volunteering, supporting students, offering and receiving career advice, awards, events, joining the alumni council, and other opportunities to get involved and make a difference.

[las.illinois.edu/alumni](https://las.illinois.edu/alumni)





University of Illinois Urbana-Champaign  
**COLLEGE OF LIBERAL ARTS & SCIENCES**  
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>> **New address?** Update your mail or email address at [go.las.illinois.edu/contact-Sp22](https://go.las.illinois.edu/contact-Sp22).

Goal met:

\$200 million



**THANK YOU** to the donors, students, faculty, and staff who helped the College of LAS reach its goal for the **With I fundraising campaign**. Together, you've made LAS a place we can all believe in.

Please continue to consider ways you can support the College of LAS. Your support remains vital for learning, research, and brighter futures.

*See more details about the campaign in our LAS by the Numbers section inside the magazine.*



THE CAMPAIGN FOR  
**ILLINOIS**