THE UNIVERSITY OF CHICAGO MAGAZINE

FALL 2020, VOLUME 113, NUMBER 1

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VOLUME 113, NUMBER 1, FALL 2020

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FORWARD AND PAUSE

LAURA DEMANSKI, AM'94

I talk to my parents, who live in a different state, every evening. During the COVID-19 pandemic, there have been a few changes to this routine. Every morning before work, I text my dad, an early riser. For the first few months, it went like this: "Good morning." "Good morning." "How do you feel?" "Fine." (Thankfully.)

Sometime in the late spring, my dad started answering my first text in ways that anticipated the second—"It is a good one" or "Good morning, all is well"—setting my mind at ease right away. I have no doubt that this routine will rule our correspondence for a while to come: wake up, worry, text, receive response, and (hopefully) feel relief.

The second change was more recent, starting in September or October. At the end of each evening call, like always, my parents will say, "Love you." Like always, I tell them the same. Lately my mom has then added, with emphasis, "a *lot*."

It hasn't gone unnoticed, as you see.

Months after it began, this pandemic is a different beast, and the same one. Work from home—something I'm really grateful to be able to do—is more routine, and more alarming when I sum up how long we've been doing it.

Two weeks ago I returned to the *Magazine*'s offices for the first time since March, to pick up a needed file. Stepping into my office was like entering a world that had stopped all at once. The calendars I keep on the wall for the current month (hedgehogs) and the next (wild and scenic Michigan) were turned to March and April. The whiteboard wall where the team tracks our deadlines and triumphantly checks off every issue sent to the printer was in a similar time capsule, the last red check mark by the Winter/20 issue, which we sent out in February. My plants were quite dead.

I hustled out of there quickly. Back at home, there's not much room to roam, but life does go on—work gets done, meetings happen, meals get made, movies get watched, friends get called. One of the little things that keep me going is hearing from you, in letters and in your frankly uplifting Alumni News updates for each other. I've always enjoyed eavesdropping on those. Lately I enjoy it a *lot*.

The upcoming holidays will test us all, stretching the felt distance from the faraway people we love. To the extent it helps, consider the *Magazine* one way to stay woven into the fabric of the life we all miss. ◆

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On the cover

Chasing the storm: His studies of severe weather earned UChicago's Tetsuya Theodore Fujita the nickname "Mr. Tornado." See "Singing for the Pine Trees Are Stormy Winds," page 40. Illustration by Chris Buzelli.

Above

Meteorologist Horace Byers (right) and Captain Louis DePas collect data from a weather vane during one of the many early scientific weather studies spearheaded by the University. For more on how Byers and other UChicago thinkers shaped the ballooning field of meteorology, see "Pilot Program," page 43.

Features

LETTERS

The *University of Chicago Magazine* welcomes letters about its contents or about the life of the University. Letters for publication must be signed and may be edited for space, clarity, and civility. To provide a range of views and voices, we encourage letter writers to limit themselves to 300 words or fewer. While the *Magazine* staff works remotely during the COVID-19 pandemic, please send letters via email: **uchicago-magazine@uchicago.edu**.

Warning: no drug is "safe"

As a rheumatologist, I read with dismay Jason Kelly's statement that "hydroxychloroquine is well understood and known to be safe when used, as it has been for decades, to treat malaria" ("Trials by Fire," Summer/20). No drug is "safe." All medications have side effects, and in order to be approved by the FDA the benefit in a given condition has to outweigh the risks (a positive benefit to risk ratio).

The package insert for hydroxychloroquine notes the potential for fatal cardiac events, muscle or nerve damage leading to "weakness and atrophy of proximal muscle groups," the potential for suicidal behavior, and severe low blood sugar "including loss of consciousness that could be life-threatening." In addition, most malaria is now resistant to hydroxychloroquine; the Centers for Disease Control notes that "there are only a few places left in the world where hydroxychloroquine is still effective including parts of Central America and the Caribbean."

All drugs have side effects, and we have to find the one that has the most benefit balanced against manageable side effects.

My patients often tell me they don't want to take a drug because "it has side effects." I try to explain to them that all drugs have side effects, and we have to find the one that has the most benefit balanced against manageable side effects. Statements like Kelly's only serve to reinforce incorrect perceptions about medications.

Victor S. Sloan, AB'80
FLEMINGTON, NEW JERSEY

Of precedents and parks

The University of Chicago has produced unending numbers of distinguished graduates in virtually every field of intellectual pursuit. "Precedent Setting" by Jeanie Chung (Summer/20), about the life work and accomplishments of Joseph Sax, JD'59, in environmental law, honors the genius and the indomitable spirit of such a man.

He graduated from the Law School two years after me. I never had the opportunity to meet him personally, but his great achievement in giving life and meaning and legal effect to the doctrine of public trust in natural resources law has been the foundation of all my efforts in the not-for-profit 501(c)(3) Protect Our Parks, which by chance is presently involved, and using the Sax public trust doctrine, in a lawsuit to protect historic Jackson Park from the efforts to build a private 235-foot-high, 23-story tower in the 127-year-old world-famous creation of Frederick Law Olmsted and Calvert Vaux, the designers of New York's Central Park.

"Chicago" is the name used by the Potawatomi who lived here to describe the location where non-Indigenous settlers first arrived and developed the land. It means "stinking weed," and it has taken hundreds of years of untiring public park creation and protection to change that into *urbs in horto*, city in a garden.

Descartes wrote, "*Cogito, ergo sum*." Sax wrote, "When a state holds a resource which is available for the free use of the general public, a court will look with considerable skepticism upon any government conduct which is calculated either to reallocate that resource to more restricted uses or to subject public uses to the self-interest of private parties." The *Magazine* article goes on to comment, "Today the public trust doctrine has been applied in hundreds of federal and state decisions and adopted in 10 countries outside of the United States."

We shall soon see whether Sax and public trust are honored in the place that nurtured his thinking and inspired his great "precedent setting."

Herbert L. Caplan, AB'52, JD'57
CHICAGO

Carnegie's philosophic muse

The illustrations of philosophers accompanying "Situational Ethics" (Summer/20) includes Andrew Carnegie. Carnegie (1835–1919) made his fortune investing in the steel industry and then became a major philanthropist, giving millions to charities, foundations, and universities.

But the philosopher behind Carnegie was Herbert Spencer (1820–1903), whom Carnegie admired and promoted, writing that the world "will waken some day to [his] teachings and decree Spencer's place with the greatest." Early American economists and sociologists taught Spencer's *Social Statics and The Data of Ethics* to justify laissez-faire capitalism.

Photo courtesy University of Michigan Law School

Spencer coined the term "survival of the fittest" before Charles Darwin co-opted it. Spencer argued that free competition was part of natural law and that industrial society is held together by voluntary contractual relations and by a strong common morality. But who reads Spencer today or includes him among situational ethicists?

Harry Perlstadt, AM'66, PhD'73

RALEIGH, NORTH CAROLINA

John Paul Rollert, AM'09, PhD'17, responds: *In my Chicago Booth class Ethics of Business, we read Andrew Carnegie's "Gospel of Wealth," an essay first published in the* North American Review *in 1889. As Mr. Perlstadt notes, Carnegie was an avowed disciple of Herbert Spencer, whose wisdom he cites in the essay's most famous broadside against almsgiving: "It were better for mankind that the millions of the rich were thrown in to the sea than so spent as to encourage the slothful, the drunken, the unworthy." Thus, for better or worse, in spirit at least, Herbert Spencer still haunts University of Chicago students today.*

Bilingual advantage

Jillian Kramer's article "Talk Is Deep" (Summer/20), about psychology professor Katherine Kinzler's language research with babies and young children, brought back memories of my own bilingual upbringing. I grew up speaking German and English. Kinzler's research, Kramer writes, "has shown that children who are exposed to linguistic diversity at an early age, or raised in a multilingual environment, are better at listening to and understanding the perspectives of others than children who are not exposed to another language."

My bilingual upbringing gave me an appreciation of different cultures, which I'm convinced continues through adulthood. I also feel that a multilingual background draws one to people who have a similar background. I have friends who have grown up with one language, but I would venture to say that growing up speaking more than one language increases the probability that your circle of friends also grew up bi- or multilingually.

My husband is from the Netherlands, and I decided to learn to speak Dutch before we got married, because I felt it would help avoid possible misunderstandings. The fact that I can speak Dutch has helped me understand my husband better. I'm certainly not implying that we would no longer be married if I had not learned the language! However, I am convinced I would have misinterpreted things, and would have gotten upset by something he said, but didn't mean, if I couldn't speak Dutch.

For me, multilingualism in the context of Kinzler's research is not about agreeing with everything someone from a different linguistic background says and thinks, but it is about the ability to listen to and be open to another perspective.

Should Kinzler want to conduct research with adults, then I am very happy to participate!

Jacqueline Klaiss Brons, MBA'94

BERN, SWITZERLAND

Ahead of his time

The picture of the career advising bulletin board (Alumni News, Winter/20) triggered a memory of a bulletin board at UChicago that played an important role in my life and career. It was the enormous one in the Social Science Research Building, which was always filled with announcements of visiting lecturers (J. Robert Oppenheimer was one I saw); films (there were five film clubs at the time—I first saw *The Birth of a Nation* then); and events and educational opportunities of all kinds. To me, that bulletin board was a symbol of the vibrancy of UChicago, and I would check it at least once a week.

At the time (spring 1949), I was finishing up my AM in history and wanted to go for my doctorate. Much as I loved Chicago, it lacked two things I wanted: (1) a much broader background in the social sciences, and (2) evaluated teaching experience at the college level. But then, every other graduate school I examined had the same gaps. "Know more and more about less and less" and "If you know your subject, you can teach it" were the mantras of the day. What was I to do?

And then—wonder of wonders—there appeared on the bulletin board an announcement of an integrated social science program with guaranteed college teaching experience, the only such program at the time. And so, off I went to the Maxwell School of Citizenship and Public Affairs at Syracuse University, ending up with a doctorate, three years of evaluated teaching experience, and 40 years of university teaching and administration. Thanks, U of C.

"Know more and more about less and less" and "If you know your subject, you can teach it" were the mantras of the day.

(I'll be 99 on March 30. I don't believe it myself.)

Harold Lieberman, AM'49

ST. CLOUD, MINNESOTA

Remembering Frank Ellsworth

It saddened me to read of the death of Frank Ellsworth, PhD'76 (Deaths, Winter/20). Some professors leave an indelible mark on their students. Frank Ellsworth played a strong role in that formidable freshman year of mine at the U of C.

I arrived on campus in the fall of 1977 feeling apprehensive and questioning if my high school had prepared me for the rigors of the University of Chicago curriculum. Mr. Ellsworth

taught my social science class, Political Order and Change. We read, discussed, and debated the political philosophies of Plato, Karl Marx, Alexis de Tocqueville, and others. Mr. Ellsworth captivated my interest in the material. He helped us interpret and formulate our ideas on these diverse authors.

I found term papers particularly challenging. In grading each paper, Mr. Ellsworth offered constructive criticism but always with words of encouragement. If he felt I was capable of something better, then perhaps I was. I gradually realized that I could perform in this academic institution.

The extra interest that Mr. Ellsworth took in his students was best manifested by his sherry hours. Often, if we needed extra time to understand the concepts, Mr. Ellsworth would reserve a room at the Law School in the evening, supply sherry, and invite us to join in a discussion of the text. Whether it was the informal setting, the effects of the sherry, or his friendly approach to teaching, we all were less intimidated to express our thoughts. I learned a lot from these discussions. After two quarters of Frank Ellsworth's classes, I not only had a greater appreciation of the complexities of society but also learned to argue logically and concisely. These skills would serve me in future courses.

Whether it was the informal setting, the effects of the sherry, or his friendly approach to teaching, we all were less intimidated to express our thoughts.

Gary Gagliardi, AB'81
GREENWOOD, INDIANA

A football classic

Bernard Wax's (AB'50, AM'55) letter and Philosophy Bowl article reminded me of my participation in that event (Letters, Spring/20). I played left end on the Aristotelian team and caught one of the three passes mentioned in the article. I was quickly tackled by my roommate Bernard Wax, the defensive back for the Platonists. Our dormitory floor, the fourth in Coulter House of Burton-Judson, was a close-knit group. We held a well-attended reunion for several years after graduation, and I am still in close contact with Bernie and Art Aronson, AB'50.

The game was covered by the *Chicago Tribune*, which took every opportunity to comment on University chancellor Robert Maynard Hutchins.

Gerald H. Brody, AB'51
FRAMINGHAM, MASSACHUSETTS

To the Point

In the early 1970s I lived on 55th Street, just two blocks from the Point, while attending graduate school. The Point was a magnet for meeting people, relaxing, and swimming off the rocks (Alumni News, Summer/20). I regularly swam from the Point to the seawall at 57th Street and back again. It was then I learned that my slim body could not tolerate water temperatures below 63 degrees.

Sometimes English Channel swimmers would come to the Point to train. They would swim from the Point to the Michigan shore and back again. Amazing. I seem to remember there used to be an abandoned underground antiballistic missile silo on the grounds. Once I witnessed the Chicago shore patrol pluck a young couple from their sailboat just as it sank due to a storm.

I also witnessed a man steal some money from a woman's purse as she was sunbathing. I shouted, "Hey!" and he slipped away. I told the woman what I saw, and she checked her purse. She said she was missing $20. I asked if she wanted to call the police. She said yes. The police came, and we spotted the thief soon after. He had just been released from the clink and went back in for 90 days.

You never knew what to expect at the Point, but it was a great place to hang out.

Larry Gordon, AM'71
GREENVILLE, SOUTH CAROLINA

A Point in time

Your note asking for comments about what we called simply "The Point" evoked fond memories of my years spent in graduate school (1968–75) and swimming off the rocks at Promontory Point. On a one-mile round-trip lap that ran from the rocks on the Point to the corner of the steel pier at the south end of the 57th Street beach, marathon swimmers from the University and elsewhere trained from March through November.

Among the University-related group of swimmers were faculty from the psychology department and graduate students from economics, the business school, and the physics department. At least four English Channel swimmers were included with those who swam with us U of C faculty and students.

Perhaps most notable among the U of C group were the number of "leftovers" of families from the Manhattan Project who were still living in Hyde Park. Just counting Nobel laureates' offspring, these included Eugene Wigner's daughter, James Franck's grandson, and Paul Dirac's niece. Other notables included John von Neumann's brother, who sometimes came by for a brief swim, and once Laura Fermi, Enrico's wife, joined us for a dip off the rocks on the south side of the Point.

The group of marathoners was led by Hyde Parkers Ted Erikson and his son Jon, both of whom held records for English Channel swimming. My training with the group led to my successful

UChicago Photographic Archive, apf2-04037, University of Chicago Library

crossing of the channel with the fastest time of the year and my winning the "1970 Channel Swimmer of the Year" award. The 50th anniversary of my swim coincided with my receipt of the Summer/20 issue of the *University of Chicago Magazine*.

Michael A. Paesler, SM'70, PhD'76
CARY, NORTH CAROLINA

Ice cream dreams

It's no wonder that the Medici is still around, because it had some of the best food in Hyde Park when I was a student in the '60s (Alumni News, Summer/20). Because good food and good books always were, and still are, two of my favorite things, the Medici was a perfect place for me.

What I remember best is that I loved the combo of a scoop of very good vanilla and a scoop of very good chocolate ice cream, proof that the adolescent is mother of the woman. While the Medici was then known for its excellent burgers, I still preferred ice cream to them.

It's no wonder that the Medici is still around, because it had some of the best food in Hyde Park when I was a student in the '60s.

Of course, nothing was as good as the scrumptious Valas vanilla ice cream (from the Co-op on 55th Street) with thick chocolate fudge and pecans, packaged in the colorful container that was almost as delightful as the ice cream. But that's another story.

Sharon Kapnick, AB'69
NEW YORK CITY

Hyde Park is burning

I was at the Law School in the late 1980s and frequently ate at Medici, as I lived on Blackstone Avenue and loved the place. For a while the older 57th Street location was closed while the new location was completed. I suffered for a few months without their terrific pizzas.

I was in within a few days of the new location's opening and sat happily reading a paper while I waited. I didn't notice that smart table candles had been added. Within seconds, my *New York Times* burst into flames. The staff and I stomped the flames out, pizza was served, and the Medici survives to this day. But it could have been so different.

Sean Carney, JD'90
LONDON

A fresh page

By the way, O'Gara's Bookstore, formerly of Hyde Park, can currently be found in Chesterton, Indiana, as O'Gara & Wilson Ltd. Antiquarian Booksellers (Letters, Summer/20). I visited in 2013, after it first opened in Chesterton (just an hour's drive from Chicago), and it remains as wonderful as it was in Hyde Park.

Mike Kearns, MBA'75
CHICAGO

LETTERS

Creative non-violence corrections

Edward Comer's (AB'71) letter (Summer/20) mentions a Committee for Creative Non-Violence. He was probably referring to Students for Violent Non-Action, which was active on campus around 1970.

William Green, LAB'70

BELOIT, WISCONSIN

A letter in your Summer/20 issue referred to a Committee for Creative Non-Violence, and the editor's note indicated the *Magazine* found no record of such a group. Perhaps the letter writer was thinking of SVNA, or Students for Violent Non-Action, which entertained us in the late '60s and early '70s with amusements such as spiked punch ladled out on the quads from 20- or 30-gallon metal garbage cans.

Alas, the sands of time have a way of wearing off the interesting rough edges of the moment.

Alice D. Leiner, AB'74

SEATTLE

The reason you can find no record of the Committee for Creative Non-Violence is that it didn't exist; I presume Edward Comer, AB'71, was misremembering SVNA, Students for Violent Non-Action, a sort of floating performance art project that lasted for perhaps three years, 1969 through '72.

Kelly Kleiman, AB'75, JD'79

CHICAGO

I've just received my copy of the *Magazine* and read it with great interest. I do need to correct one historical fact, though. While I am fully in agreement with creative non-violence, there (as far as I know) has never been a student (dis)organization by that name. Alas, the sands of time have a way of wearing off the interesting rough edges of the moment. What you're actually referring to was Students for Violent Non-Action, which, in turn, spawned (Sired? What's the right word these days?) the Lascivious Arts Ball (not the Lascivious Costume Ball, which in its way sounds less ambiguous and threatening). Just to set the record (more or less) straight.

Steve Simmons, AB'72, PhD'95

BETHLEHEM, PENNSYLVANIA

There was no giant kazoo in evidence in autumn 1971 when we of Upper Rickert House, then in Woodward Court (later demolished to make way for Chicago Booth), showed up with our normal-sized kazoos to cheer for—well, buzz at—the Maroons' first football game of the season. We thought we were the first. Thanks to other writers for putting our happily noisy afternoon in perspective (Letters, Summer/20).

The editors could find no record of the Committee for Creative Non-Violence because it was actually SVNA (Students for Violent Non-Action).

Basically that period's instigator of campus hijinks, SVNA may have been best known to our class for its O-Week or first-week bash between Woodward Court and Ida Noyes. Returning students warned/promised us that SVNA punch would be flowing freely. Finding myself standing near a full-sized plastic garbage can, I soon learned the recipe for that potion as I watched a batch being assembled: a few dozen bottles of Everclear (180 proof, or near enough), almost as much of an off-brand variant of Hawaiian Punch, enough of some cheap brand of clear soda pop to make the concoction fizz, and a few half-gallon cartons of the cheap sherbet then available from Walgreen's.

This glop was stirred with something immense—a canoe paddle? a shovel?—before the mixologists scooped it out into large paper cups and passed it out to everyone in sight. "Passed out" also fairly describes the condition of the several partiers who couldn't get enough of the stuff.

Joan Pederson, EX'75

CHICAGO

Photo courtesy California Strawberry Commission

Strawberry statement

You have been in the city too long. No one has yet come up with a strawberry like the wild strawberry ("Strawberry Yields," Winter/20). Mostly about the size of a small fingernail, the wild strawberry is a morsel of unrivaled sweetness.

Margaret Brenneman, AM'64

SHERIDAN, WYOMING

The tutor period

I wanted to write you a letter about SWAP, the Student Woodlawn Area Project (Alumni News, Spring/20). I was the only U-High student involved in the tutoring project (1964–66 were my years). I tutored grade-schoolers in the Oakland neighborhood, and I even appeared in photographs published by *Ebony* and the *Chicago Defender* in their articles on SWAP.

Ann Landers came to visit us one day. Ann Cook, AM'66, and Herbie Mack, AB'59, MAT'66, both came to my U-high graduation in 1966.

I have a button that SWAP produced: *Pergite pergere* ("Keep on pushin'" in Latin). I couldn't find my physical button, but the image is up on the web. (Hooray for technology!)

That office in Ida Noyes was my refuge, as it was for my friends from various South Side high schools.

Victor A. Friedman, LAB'66, AM'71, PhD'75, Andrew W. Mellon Distinguished Service Professor Emeritus in the Humanities

CHICAGO

REFLECTIONS FROM THE CAMPAIGN'S COCHAIRS

BY UNIVERSITY TRUSTEE **EMILY NICKLIN**, AB'75, JD'77, AND TRUSTEE EMERITUS **DENNIS J. KELLER**, MBA'68

In 1889 Thomas W. Goodspeed and Frederick T. Gates began canvasing the city of Chicago in search of financial support for a new institution of higher learning on the South Side, a great research university among the first of its kind—not just in the Midwest but in the country. The two men went door to door, explaining that gifts would help fulfill a matching challenge issued by lead donor John D. Rockefeller. Working tirelessly, Goodspeed and Gates contacted more than a thousand people, filled the forms they carried with commitments, and met their goal and deadline.

That was the first fundraising campaign in the University of Chicago's history. At the end of 2019, the University concluded its fifth and most ambitious, the University of Chicago Campaign: Inquiry and Impact, which raised more than $5 billion and engaged more than 125,000 alumni. While no one had to go door to door, the campaign involved five years of concerted outreach to a broad set of constituencies. Thankfully, the University has more advocates than it did in 1889, and they were as dedicated as Goodspeed and Gates.

Since the campaign's conclusion, the University of Chicago, like communities around the world, has sought and found new ways of conducting its core mission. Much hard work and many resources are being called on to ensure education and research move forward in safety without compromising the intellectual ideals that the University's founders invested in.

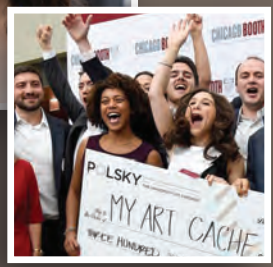
University of Chicago Board of Trustees

As the world confronts COVID-19, it's plain that investment in those ideals is more important than ever—and so, it follows, is thanking every one of you who gave to the campaign. Your contribution may now seem to have receded into prehistory. But trust us that the impact of that past support is very immediate, and, in fact, more critical than any of us knew.

As cochairs of this most recent campaign, we know that motivations for giving were broad and varied, but recurring themes emerged. Alumni credited the University with teaching them how to think and altering the trajectory of their lives, and wanted others to have an equally transformative experience, regardless of their financial means. Grateful patients felt they'd received world-class care and wanted UChicago Medicine to be able to continue discovering and providing the latest treatments. Friends of the University were drawn to the intellectual rigor of its faculty and wanted to help them ask tough questions, challenge conventional wisdom, and pursue innovative approaches to pressing societal challenges.

The dollars given are just one indicator of the campaign's success. More meaningful results can be found in the increased diversity of the student body, the greater eminence of the faculty, and the new spaces—physical and intellectual—for learning, convening, and collaborating in Hyde Park, Hong Kong, and elsewhere around the globe. Ultimately, it will be up to future generations to assess the full legacy of the campaign, as the momentum it created will continue in the years ahead. For now it's clear that the University community remains as enthusiastic as ever about setting and meeting lofty goals in service of the institution.

We are proud to have been a part of this effort; grateful to President **Robert J. Zimmer** and board chairs **Joseph Neubauer**, MBA'65, and **Andrew M. Alper**, AB'80, MBA'81, LLD'16, for their leadership; and excited about the new leaders, ideas, and innovations that will emerge from the University because of the investments made during the campaign. Especially now, they are needed. ◆



THE UNIVERSITY OF
CHICAGO
CAMPAIGN
INQUIRY & IMPACT

Six years ago we launched
The University of Chicago Campaign: Inquiry and Impact
with a bold question:

What difference can one idea, one person, one university make?

You answered by investing in the
University's enduring values in new, impactful ways
that hold deep meaning for you.

THANK YOU.

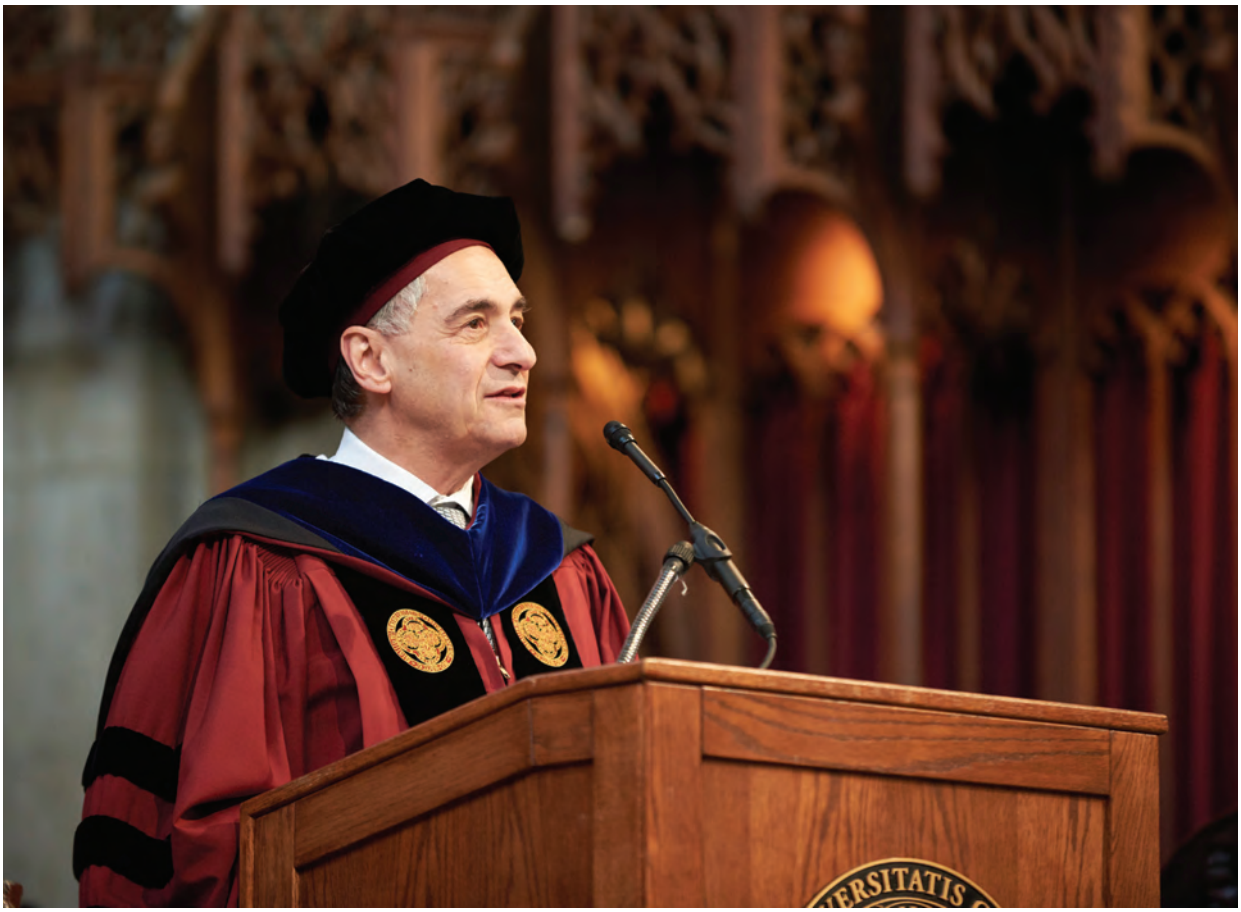
**Your investment will make a difference
in lives around the world.**

campaign.uchicago.edu/thankyou

UCHICAGO JOURNAL

RESEARCH AND NEWS IN BRIEF

TEXT AND IMAGE
The Core curriculum, campus architecture, and virtual projections came together in artist Jenny Holzer's (EX'74) project Y*OU BE MY ALLY* this fall. See "The Medium Is the Message," page 14.



President Robert J. Zimmer, who took office in 2006, will become University chancellor in 2021.

UNIVERSITY NEWS

Transition at the top

President Robert J. Zimmer will take a new leadership role after this academic year.

President **Robert J. Zimmer** will transition into a new role as chancellor of the University of Chicago in June 2021, the Board of Trustees announced in August.

While he agreed in 2017 to serve as president through at least 2022, Zimmer shared his intentions to accelerate his planned transition from the role of president at an August 12 Board of Trustees meeting. Zimmer had surgery in May to remove a malignant brain tumor and has since returned to work and is responding well to treatment.

In an email to the University community, chair of the Board of Trustees **Joseph Neubauer**, MBA'65, praised Zimmer's work as president and expressed the board's gratitude for his contributions. "During his presidency," Neubauer wrote, "the University has enhanced its eminence among the top-ranked research universities in the United States and the world and has strengthened its position as a preferred destination for many of the world's leading scholars and students. The University has made substantial investments to fulfill the programmatic ambitions of the faculty, support the exceptional scholarship and education for which the University of Chicago is known, build partnerships with our surrounding neighborhoods, and increase its financial support for students."

Recognizing his profound impact on the University since he took office, the board asked Zimmer to assume the new role of chancellor, in which he will focus on high-level strategic initiatives, advancement of enduring University values, sustenance of key relationships, high-level fundraising, and working with the new president in these areas.

"The past 14 years as president of the University have been deeply rewarding for me," Zimmer wrote in an August 13 message to the University community. "On one hand, this was due to the opportunity for enhancing the work of the University and our faculty, students, and staff, reaffirming our enduring values and consequent approach to research, education, and impact, and building new partnerships including

Photography by Joel Wintermantle

our global efforts and a deeper engagement with the communities of the South Side of Chicago. On the other hand, the rewarding nature of the work I have been engaged in over these years is also due to the personal relationships that have developed with the many individuals with whom I have worked closely over that time."

Zimmer became the 13th president of the University of Chicago on July 1, 2006, after serving most recently as provost of Brown University. His appointment as president was a return to UChicago, where Zimmer had been a faculty member and administrator for more than two decades, serving as chair of the Department of Mathematics, deputy provost, and vice president for research and for Argonne National Laboratory. He joined the University in 1977 as a Dickson Instructor in the Department of Mathematics.

In his email, Neubauer noted Zimmer's devotion to the University of Chicago's core principles, "with a particular focus on rigorous scholarly inquiry, academic freedom and free expression, as well as diversity and inclusion." Zimmer, he wrote, "has reinforced the institution's distinct culture and heritage, while helping the University evolve appropriately to the unique challenges of our time."

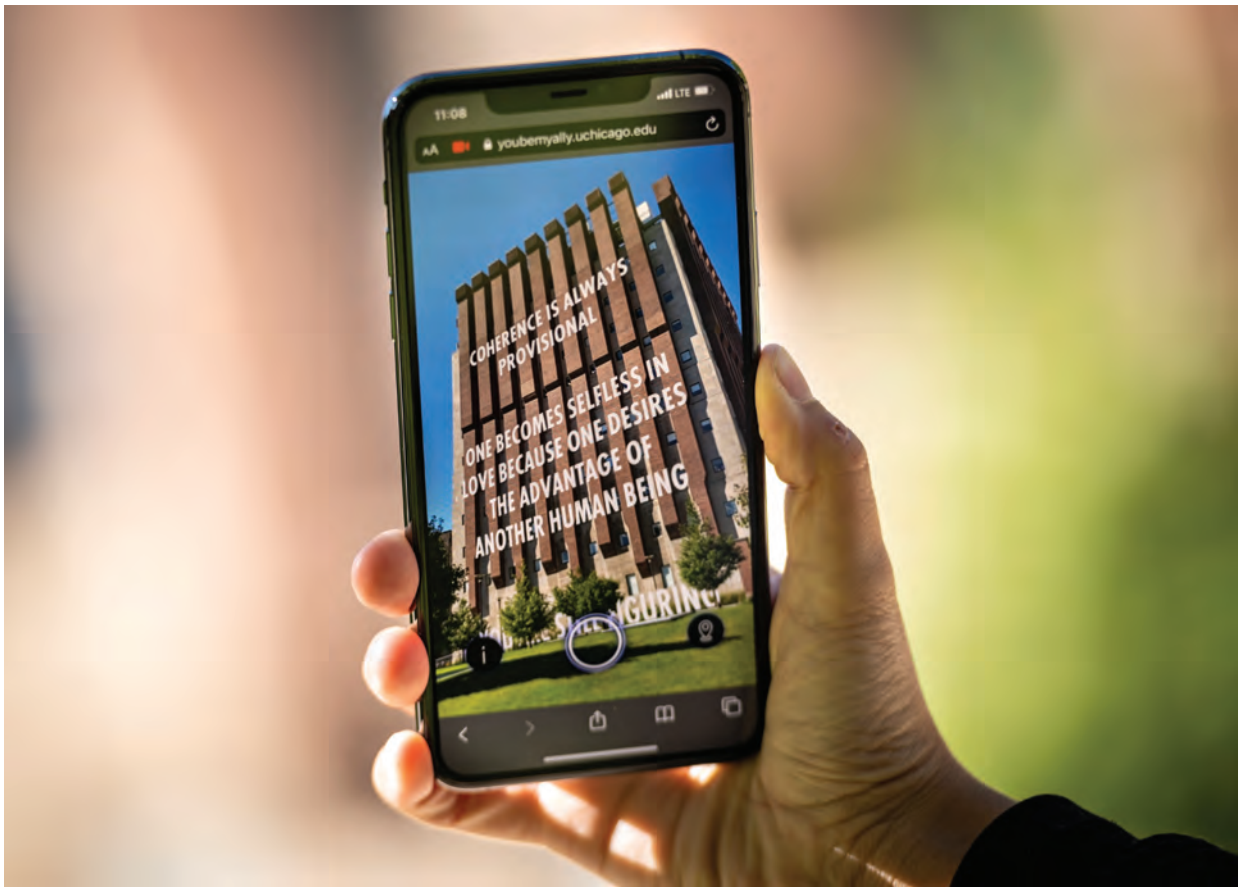
In September Neubauer announced the launch of the search process for the 14th president of the University. The Trustee Search Committee, made up of 12 trustees plus President Zimmer in an ex officio capacity, and the 10-member Faculty Advisory Committee will work together closely to identify the next president. A new president, Neubauer noted, is elected by affirmative vote of a majority of the members of the Board of Trustees.

The committee is soliciting nominations from faculty, students, staff, alumni, and other friends of the University. It welcomes readers' ideas regarding the credentials, experience, qualities, and values the committees should consider for the University of Chicago's next president at presidential_search@uchicago.edu. ◆

MEASURES OF EMINENCE

The University of Chicago during the presidency of Robert J. Zimmer

- Dramatically greater financial aid for undergraduate students through the Odyssey Scholarship Program and other initiatives.
- Greatly increased support for graduate and professional students.
- A nearly 300 percent increase in applications to the College since 2005, with admission yield rates of 80 percent.
- Growth of 24 percent in nonclinical tenured and tenure-track faculty, driven in part by new or expanded activities in molecular engineering, quantum information and technology, computer and data science, policy leadership, and neurobiology.
- Establishment of the University's first engineering program, now known as the Pritzker School of Molecular Engineering.
- Establishment of institutes and centers within and across the disciplines.
- Investments in the arts, including the opening of the Logan Center for the Arts and the establishment of the Gray Center for Arts and Inquiry, the Green Line Performing Arts Center, and the Arts Block on East Garfield Boulevard.
- New or strengthened partnerships with the City of Chicago and local organizations, including through the opening of a level 1 adult trauma center at UChicago Medicine; the integration of the Urban Education Institute and the UChicago Charter School into the School of Social Service Administration; the collaboration between UChicago Urban Labs, nonprofit groups, and government agencies to develop policies aimed at improving the quality of urban life; and more.
- A broadened global engagement strategy drawing more international students with increased financial support, expanding student study abroad, and leading to the opening of the Center in Beijing, Center in Delhi, and the Francis and Rose Yuen Campus in Hong Kong, and plans for expansion of the Center in Paris.
- Unprecedented levels of philanthropic engagement, including the success of the University of Chicago Campaign: Inquiry and Impact, which concluded at the end of 2019 having raised $5.43 billion.



For her project *YOU BE MY ALLY*, artist Jenny Holzer, EX'74, selected quotes to virtually project on campus buildings, such as these from UChicago professor Lauren Berlant (top) and Friedrich Nietzsche on the Cummings Life Science Center.

ART

The medium is the message

This fall, public art by Jenny Holzer, EX'74, projected excerpts from Core readings on University buildings.

BY CARRIE GOLUS, AB'91, AM'93

Jenny Holzer, EX'74, rarely gives lectures. She seldom agrees to interviews. She prefers to let her artwork speak for itself.

Her work—printed on street posters, carved into marble, programmed into LED signs, or projected on buildings in giant letters—says things like:

PROTECT ME FROM
WHAT I WANT

ABUSE OF POWER
COMES AS NO SURPRISE

SPIT ALL OVER SOMEONE
WITH A MOUTHFUL OF MILK
IF YOU WANT TO FIND OUT
SOMETHING ABOUT THEIR
PERSONALITY FAST

"I like placing content wherever people look," Holzer has said in one of her infrequent interviews, "and that can be at the bottom of a cup or on a shirt or hat or on the surface of a river or all over a building."

At the University's 2019 Convocation, Holzer was awarded the Jesse L. Rosenberger Medal for outstanding achievement in the creative and performing arts. Usually, recipients of the medal return later to give a lecture or workshop. When Holzer toured the campus with **Laura Steward**, curator of public art at UChicago, they hit upon the idea of a collaborative art project instead. "I still get goose bumps when I talk about this," says **Christine Mehring**, the Mary L. Block Professor of Art History, who was part of the group that nominated Holzer for the medal.

In October *YOU BE MY ALLY* premiered on campus and worldwide through a web-based augmented reality app. The title comes from *If Not, Winter: Fragments of Sappho*, translated by Anne Carson (Knopf, 2002). *YOU BE MY ALLY* is Holzer's first augmented reality project with virtual projections in the United States. It's also her first work created in collaboration with a university's students and faculty.

Holzer began her career as a guerilla artist in the late 1970s, printing posters of what she called Truisms—brief, cryptic epigrams on a range of topics—and wheat-pasting them around New York City under cover of darkness. In 1990, she was chosen to represent the United States at the Venice Biennale, where she won its grand prize, the Leone d'Oro.

For the UChicago project, after considering other themes—free speech, gun violence—Holzer chose to focus on the readings in the Core curriculum. *YOU BE MY ALLY* features 29 excerpts from Core readings, culled from more than 100 pages of suggestions from UChicago students and faculty. "There were a lot—a ton," says research assistant **Emeline Boehringer**, Class of 2021, who worked with professors in the Core to compile the excerpts.

Among the final selections were quotations from Plato, Friedrich Nietzsche, W. E. B. Du Bois, Virginia Woolf, and Toni Morrison, as well as **Lauren Berlant**, the George M. Pullman Distinguished Service Professor in English (from an article cowritten by Michael Warner of Yale): "COHERENCE IS ALWAYS PROVISIONAL." Holzer appeared particularly interested in "what marginal voices wind up being included in the canon," Boehringer says. When COVID-19 emerged after the project was well underway, "that definitely shaped the quotes we chose."

On campus, viewers are able to virtually project and animate these texts on the facades of seven architecturally significant buildings: Cobb Hall (designed by the noneponymous Henry Ives Cobb), D'Angelo Law Library (Eero Saarinen), Logan Center (Tod Williams and Billie Tsien), Mansueto Library (Helmut Jahn), the School of Social Service Administration (Ludwig Mies van der Rohe), Cummings Life Science Center (I. W. Colburn), and Rockefeller Memorial Chapel (Bertram Grosvenor Goodhue). In addition, app users anywhere in the world can project the texts onto their surroundings.

Holzer's project takes its title, *YOU BE MY ALLY* (projected here on the facade of the School of Social Service Administration building), from a Sappho poem.

In *YOU BE MY ALLY*, Holzer used virtual projection not as "a stand-in" for her earlier and ongoing work with real building projections, says Mehring, "but as its own medium." Mehring points to the way the text "crawls" up the steps of SSA (her favorite) or is projected onto the Law School library's glass facade and Rockefeller's ivy: "None of this is technically possible for an actual projection."

LED displays, which some critics consider Holzer's signature medium, were also part of the project. For two days in early October, the Core curriculum texts traveled the streets of Hyde Park, other South Side neighborhoods, and the Loop in the form of LED displays on trucks.

In late October, during the run-up to Election Day, the trucks displayed messages, some written by UChicago students, encouraging viewers to vote. Among the student submissions: "YOUR BIRTHRIGHT IS MY LIFE'S DESIRE," "YOU'RE NOT OVERREACTING," and "APATHY IS UNACCEPTABLE." As with all of the text in Holzer's art—including her own writing, or those of authors taught in the Core—the messages are aggressive, public, and anonymous. ◆

QUICK STUDY

MEDICINE

The side effects of sexism

Women around the world receive higher dosages of medications than they need—and suffer adverse reactions ranging from headaches to seizures as a result. That's the conclusion of a June 5 *Biology of Sex Differences* article coauthored by UChicago psychologist **Brian Prendergast**. Analyzing data from clinical trials for 86 drugs, including aspirin, morphine, and heparin, the researchers found that women metabolized the medications more slowly than men, resulting in greater exposure to the drugs and significantly higher rates of side eff cts. In many instances, these sex diffe ences weren't analyzed during the original trials, whose test subjects were overwhelmingly male. Prendergast says more research is needed to understand why men and women metabolize the same medications so differently. Until then he recommends doctors avoid a one-size-fits-all approach and drug companies include more women in clinical trials.—*S. A.* ◆

The women's volleyball team celebrates a win against Calvin College in 2019. This year, just being together is cause for celebration.

UChicago Athletics

COMMUNITY

Making the best of it

BY SUSIE ALLEN, AB'09

In July the University announced the cancellation of intercollegiate sports competition for Autumn Quarter, with decisions on Winter and Spring Quarters still to come. But whatever the fate of their seasons, UChicago's student-athletes haven't lost their drive. Five Maroons, interviewed in September, told us how they were keeping their spirits and heart rates elevated amid the COVID-19 pandemic. Their comments have been edited and condensed.

Ashley Gao and **Peyton Van Soest**, both Class of 2023
Women's Basketball

Gao A week before everything started hitting, we had just lost our tournament game. I don't know if it was better or worse that our season ended in a natural way.

Van Soest For the first couple of weeks, everything was so discombobulated, but then our coach started sending workouts. I did not have weights at home, but I looked around and was like, "Those are two good-sized V8 juice bottles." I did the arm circuit using those, and honestly, it was fine.

I joke that we kind of became a cross-country team because all we could do was run.

Gao At the beginning of the pandemic, it was hard to stay motivated without coaches and teammates there. But reconnecting with the team and having small challenges reminded us why we were there.

Van Soest Now we also have accountability groups, so we check in every day. If I go out for a run, I take a picture and say, "I ran two miles today," and someone is going to see that and say, "Oh, I should do something too." When I see my teammates working to get better, that gets me up and going as well.

Gao We also play silly trivia games to keep our competitive juices flowing.

Van Soest I'm just looking forward to the first time we can play some three-on-three—something where it's competitive and not me shooting baskets by myself.

Gao I'm living vicariously through watching professional players in their little bubbles.

Van Soest I live with another basketball player, and we often rehash games we already played, to the point of feeling like we're playing them again.

Gao There have been ups and downs for everyone, but I think our team did a really good job of staying in touch and finding ways to make the best out of the situation.

Van Soest I think we're going to come out of this stronger. With a season, without a season—I think we'll be closer, and hopefully better.

Sherwin in high school. His first college season ended early due to COVID-19.

Photo courtesy Logan Sherwin, Class of 2023

Logan Sherwin, Class of 2023
Men's Diving

Once I got home in March, I relaxed for a little bit, and then when Spring Quarter started up again, I was doing class and got a part-time job. I was working out here and there—lifting weights, some bodyweight workouts, and stretching.

In June my club diving team started hosting practices a few times a week at a local country club. It's always rough getting back from taking a break—especially going from training six days a week at school. It felt like I'd never used my legs before.

For the fall, we might be able to have some practices—dryland workouts outside, socially distanced. We know we can't get on the boards until at least November.

We haven't heard anything about the season yet. If we can't compete, having that long period of practicing without having meets might be nice to work on some new dives—things that you wouldn't be able to train for during the season. And having friendly competition within your team can be fun.

Emma Griffith and **Autumn Mitchell**, both Class of 2021
Women's Volleyball

Griffith Volleyball is a hard sport to play on your own—you can't just shoot around the way you can with basketball. So in the spring we were feeling a little bit lost at first. But we were still positive and excited about the opportunity to work out. We had a program that we were all following, and on Fridays we had team Zoom workouts. Our coaches and strength coach would watch and give pointers and keep us motivated. Those were some of my favorite moments of quarantine.

Mitchell Realizing that I wasn't going to be able to go to the gym and was going to lose muscle mass was difficult. I had to re-strategize, so I'm doing a lot more cardio, and I've been focusing more on my nutrition. I'm in a different type of shape than I was before, and I had to get comfortable with that.

Griffith I was staying with a friend who had dumbbells, and that was really nice. We made a ladder out of tape in the hallway for agility drills. I also did a lot of awkward workouts right outside my front door. You know how people were doing those car processionals for birthdays? One time I was in the middle of a workout and I swear, 50 cars drove by.

Mitchell We have group chat and we're always sending each other the most random things or just complaining about classes. It's a community that I always know I have. If anything, this experience reaffirms that this isn't just a volleyball team. It's like a family.

Griffith For fall, there's no competition at all. We're hoping to start working out at the end of September. It's probably going to be working out socially distanced outside and playing in masks inside.

Mitchell Our coach, **Sharon Dingman**, met with the seniors individually and stressed that this isn't hardcore practice—it's more about enjoying the time together, especially for the seniors.

Griffith We have nine seniors, which is a crazy retention rate. Our coaches were super clear that if anyone didn't want to play this fall, it isn't a reflection on you or your commitment to the team. But right now, all of the seniors are still part of the team, except one person who can't come back to campus. Even in this time when we're probably not going to get to really play, all of the seniors want to be here.

Mitchell My senior year of high school I tore my ACL [anterior cruciate ligament] and missed the whole season, which was so heartbreaking. I didn't think I was going to play competitively again. Going through that helped me recognize that volleyball will always be with me, all my life—I'll always be able to play pickup games. Even if I'm done competitively, that doesn't mean I'm done with it.

Griffith I think it's a testament to how much we all like playing and like each other that it's been six months and people are still working out and showing up to team meetings and just being really resilient. It makes me feel lucky to be a part of this particular team. ◆

W. R. HARPER'S INDEX

REG AT 50

Amount, in millions, of the Joseph and Helen Regenstein Foundation's 1965 gift for a new campus library

$10

Date of the Joseph Regenstein Library's dedication

10.31.70

Number of volumes, in millions, originally housed in Regenstein

2

Number of volumes, in millions, now housed there

4.5

Year the library introduced an online circulation system

1976

First appearance of "the Reg" in the *Maroon*

5.18.79

Year the *Maroon* dubbed "Off to the Reg!" the most overused campus cliché

1981

Best floor of the Regenstein*

4

*Send complaints to letters @northwestern.edu.

In his new book, Theodore Jun Yoo, AM'97, PhD'02, used the thriller *Burning*, pictured here, to illustrate the economic anxiety of young Koreans.

HISTORY

Heart and Seoul

For Theodore Jun Yoo, AM'97, PhD'02, the personal is academic.

BY JEANIE CHUNG

"If you read my first book and get to know me personally," says historian **Theodore Jun Yoo**, "you'll realize a lot of it is my mother talking to me."

After writing his first two books, *The Politics of Gender in Colonial Korea: Education, Labor, and Health, 1910–1945* (University of California Press, 2014) and *It's Madness: The Politics of Mental Health in Colonial Korea* (University of California Press, 2016), Yoo AM'97, PhD'02, realized that as much as they were academic endeavors they were also attempts to understand his mother's anger—and its roots in Japanese occupation, poverty, political persecution, and a cultural reluctance to talk about emotions.

Yoo's third book, *The Koreas: The Birth of Two Nations Divided* (University of California Press, 2020), continues the work of trying to understand the country of his birth and current residence, and the ways it shaped him and his family. The book takes a decade-by-decade look at North and South Korea—"twins born of the Cold War"—since they separated in 1948. In situating both countries in time, Yoo also situates them in place, mapping out global connections and tracing the Korean diaspora—emigrants and immigrants, across the globe, to and from Germany, Vietnam, Ethiopia, the United States, and elsewhere.

Born in Seoul to parents who left the north during the Korean War, Yoo became part of that diaspora at three when his father signed up as a government dispatch doctor in Ethiopia, where Yoo grew up. Like many Korean immigrants of their generation, he says, his parents shared little of their feelings about their childhoods or home country, leaving him to turn to academia as a way of understanding where he came from.

So one of the primary audiences Yoo had in mind writing *The Koreas* was people like him. "For us," he says, "I think it's so important to understand the reasons why our parents left."

At the same time, Yoo wanted to give a better sense of the countries to non-Koreans whose primary knowledge might come through pop-culture stereotypes and the occasional news story. He reels off the reigning perceptions: "Samsung or smartphones, K-pop in the south, and then in the north it's this crazy guy who oppresses his people."

There's more than that to both countries, but the multibillion-dollar K-pop industry pervades life in South Korea—and filters much of Yoo's, and the world's, understanding of both countries. In recognition of pop culture's sway, art and entertainment tell much of the story in *The Koreas*.

For example, to illustrate the autocratic rule of Park Chung Hee, South Korea's president from 1963 to 1979, Yoo tells the story of Sin Junghyeon, "the godfather of Korean rock music." One of many people victimized by the 1972 Yushin Constitution, which gave the president essentially unlimited powers and no term limits, Sin was persecuted for refusing to write a song for Park.

Pop culture was one of Yoo's first avenues into Korea. In his graduate school days he made frequent trips to video stores on Chicago's Lawrence Avenue and spent "more time watching [K-dramas] than trying to read Foucault." His favorites: *Daejanggeum* (Jewel in the palace), *Anae ui Yuhok* (Temptation of wife), and *Na-ui Aieossi* (My mister). The first time he returned to Korea since leaving as a toddler—on a Fulbright grant while getting his PhD—it all looked familiar. He'd seen it on-screen.

For years Yoo kept the vocation of Korean history separate from his avocation of Korean art. But while working on *It's Madness* Yoo struggled to find much written about mental illness in Korea, where it is still heavily stigmatized. He found that novels were a useful indicator of societal attitudes and a primary source in their own right.

"There are all kinds of sources," he says.

In fact, art stood in for hard news in *The Koreas'* epilogue. Yoo had planned to end the book with the 2019 summit in Vietnam with US president Donald Trump and the leaders of North and South Korea. When nothing noteworthy happened, he turned instead to

Image courtesy Well Go USA

the 2018 South Korean psychological thriller *Burning*, analyzing the film as "a commentary on the new generation's unease about their future in a world where precarious global markets have harmed their chances at stable employment and precipitated downward mobility." *Burning* was its own kind of historical document: a glimpse into the outlook of contemporary young South Korean adults.

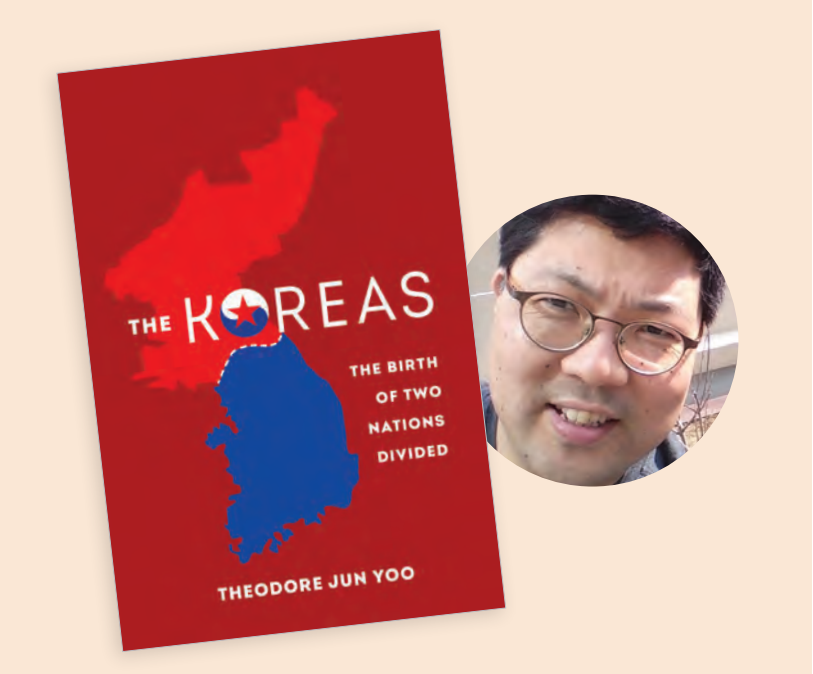
Had he waited longer, Yoo said he could have talked about income inequality in the south as depicted in a better-known Korean film: the multiple-Oscar-winning *Parasite* (2019), which came out just as he submitted his manuscript.

As a professor at Yonsei University and resident of 21st-century Seoul, Yoo has a new relationship to the country of his birth, where life moves at a breakneck pace: it's "one of these weird places where restaurants don't last for more than three months."

His next books will examine both the past and present. One is a history of feces in Korea—at the risk of essentializing, Yoo describes Koreans as "completely fixated [on] shit"—and the other is a Proustian exploration of Seoul. As a side project, he and his students are developing a virtual reality game to teach Korean. Players assume the identity of a new arrival to Seoul and try to make their way around the city while learning the language.

For us, I think it's so important to understand the reasons why our parents left.

Yoo got the idea for the game thinking about the people from around the world who arrive in Seoul today: migrant workers. K-pop fans. Adoptees visiting their country of birth. Returning emigrants. And a few escapees from the north, like his parents. All of them, like him, trying to understand Korea and its place in their lives. ◆



Book over courtesy University of California Press; photo courtesy Theodore Jun Yoo, AM'97, PhD'02

Yoo's new book is inspired by his background as a member of the Korean diaspora and the questions he had about his parents' childhoods.

QUICK STUDY

ECONOMICS

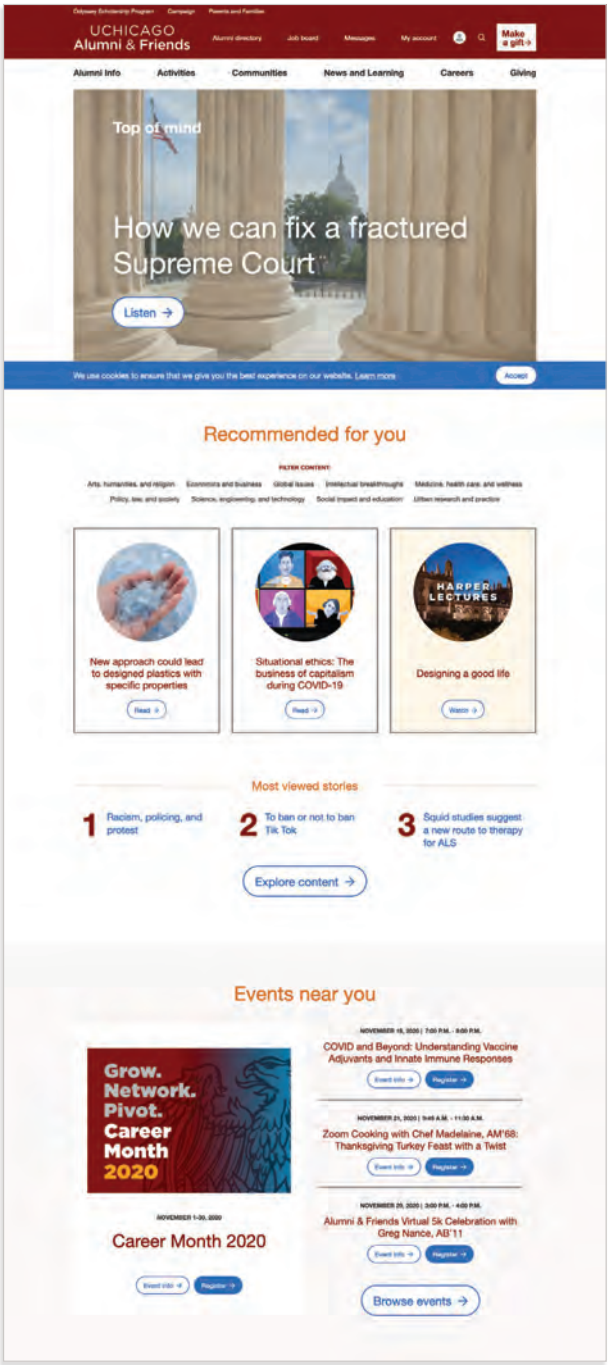
Afraid to shop

The swift economic downturn of spring 2020 was driven more by consumer fear than government shutdowns, according to a June Becker Friedman Institute working paper coauthored by Chicago Booth's **Austan Goolsbee** and **Chad Syverson**. The pair analyzed data from 2.25 million businesses around the country, comparing similar stores within the same commuting zones, across county and state lines, with diffe ent COVID-19 shutdown policies. (For example, Moline, Illinois, had a stay-at-home order and neighboring Davenport, Iowa, did not.) While overall retail foot traffic in the United States plunged 60 percent between March and May 16, just a tenth of that decline stemmed from legal restrictions, the researchers found. What does that mean for the prospect of a recovery? Don't expect too much, the researchers caution. Repealing regulations may not be enough to get fearful consumers out of their houses. *—S. A.* ◆

UCHICAGO Alumni & Friends

Bookmark the URL (or check in often enough that your browser takes over):

alumniandfriends.uchicago.edu →



COMMUNITY

Connected by curiosity

A new Alumni & Friends website launched this fall. Designed for alumni, parents, and friends, it's distinctively UChicago.

BY SEAN CARR, AB'90

Personal touch

Get the most out of the site, including a personalized experience, by signing in. Create an account or log in with Amazon, Google, Facebook, or LinkedIn.

Top of mind

News and learning are at the site's core, and UChicago Review: Inquiry + Insight gathers faculty research, news, and opinions from across campus—including lectures, podcasts, and (toot, toot) articles from the *Magazine*.

Changing news and views

Stories, podcasts, and other features are added regularly, and it's easy to save anything to read, watch, or listen to later. Or sign up for newsletters on science, the College, parenting, and general interest UChicago news.

Lifelong learning meets machine learning

If you've signed in, the site learns what you're interested in and brings relevant stories to your attention.

Directory assistance

Share as much or as little personal info as you want in the alumni directory. Email addresses are never public, but old friends and roommates are only a few clicks away with the new messaging function.

Self-help

The tax-time scramble is so 2019. On the new site, you can sift through your recent UChicago giving and download gift receipts and year-end tax letters.

Social butterfly

The new Alumni & Friends helps you connect with UChicago people— whether it's your local club, fellow degree holders, or other alumni with whom you share something in common. Besides a tendency to ask questions.

HOME SWEET HOME

Photography by Jean Lachat

Extra-long twin sheets? Check. Shower caddy? Check. Masks? Check. Getting settled in the College residence halls looked a little different for students, including this member of the Class of 2024, with move-in days staggered throughout the week of September 20 and a mandatory "stay at home" period after arrival on campus. One possible perk of the COVID-19 precautions? No roommates. With residence halls at about 40 percent of their usual density, all rooms (and bedrooms in apartment-style spaces) are single occupancy.

Despite the unusual circumstances, the College newbies were eager to dive into Maroon life. "I definitely look forward to meeting other people, especially putting faces to a lot of people I've been talking to online through summer programs," first-year **Kenatu Habetaslassa** told UChicago News. "It will be interesting to see what they're like in real life."

QUICK STUDY

PRIVACY

Face off

Facial recognition software has gradually extended its reach from seemingly innocuous Facebook photo tagging to more worrying use by repressive governments and law enforcement. Consumers have few options to protect themselves—and their own faces. Now, a team of UChicago computer scientists—led by PhD students **Emily Wenger**, SM'20, and **Shawn Shan**, SB'20, and including professors **Ben Zhao** and **Heather Zheng**—has developed a means of taking back control. The free software, called Fawkes, alters digital images in ways that go unnoticed by the human eye but can fool facial recognition technology. Fawkes tweaks a small percentage of pixels per image, just enough to disrupt the machine learning algorithms at the heart of facial recognition tools. Over time, the researchers say, with enough cloaked images of a person in circulation on the web, such programs will be unable to recognize even uncloaked images. The team presented Fawkes at the USENIX Security Symposium in August.—*S. A.* ◆

For the record

EXPANDED ROLE

On September 24 Juan de Pablo was named vice president for national laboratories, science strategy, innovation, and global initiatives. In his new role, de Pablo, Liew Family Professor of Molecular Engineering, leads the University's science, technology, and innovation efforts, along with their connections to policy and industry. He also oversees activities at the Polsky Center for Entrepreneurship and Innovation, in close partnership with Madhav Rajan, dean of Chicago Booth. De Pablo, who was named vice president for national laboratories in 2018, continues to manage the University's partnerships with Argonne National Laboratory and Fermilab. Alongside these duties, de Pablo is an active researcher in the field of materials science.

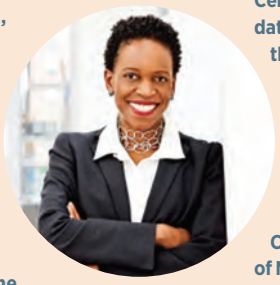
ECONOMIC GROWTH

Nobel Prize–winning economist Michael Kremer joined the faculty of the Kenneth C. Griffin Department of Economics as a University Professor on September 1. He also holds an appointment at the Harris School of Public Policy. A pioneer in development economics who has shaped the discipline through the use of field experiments to inform economic models, policy, and program development, Kremer shared the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in 2019. He was most recently the Gates Professor of Developing Societies at Harvard University. University Professors are selected for internationally recognized eminence and their potential for high impact across the University. Kremer is the 23rd person, and one of 10 active faculty members, to hold a University Professorship.

X-CITEMENT AT ARGONNE

Leaders from the US Department of Energy, Argonne National Laboratory, and UChicago broke ground July 22 on the future of X-ray science in the United States. The small gathering marked the start of construction on an $815 million upgrade of the Advanced Photon Source (APS), which gives scientists access to high-energy, high-brightness, highly penetrating X-ray beams. Expected to be complete in 2023, the APS Upgrade will replace the already powerful electron storage ring at the heart of the facility with a state-of-the-art magnet lattice system that will increase the brightness of the X-rays generated by up to 500 times. The new facilities will also have greater capability for in situ imaging, allowing for precise measurement of the impact of temperature, pressure, and other factors on advanced materials—an important step toward creating the next generation of components for everything from aircraft engines to solar cells. The APS attracts more than 5,000 scientists from around the globe to conduct research each year.

O-WEEK GOES VIRTUAL



At this year's Aims of Education Address, Melissa Gilliam, vice provost and the Ellen H. Block Professor of Health Justice, urged the College Class of 2024 to "start with loving yourself because the pain, fear, and uncertainty of the task ahead of us is quite daunting. Don't beat yourself up or speak to yourself with negative words, because you are here to learn." The encouraging speech on the challenges and opportunities of higher education was one of many Orientation Week events that went virtual this year due to COVID-19 safety measures. The prerecorded opening convocation ceremony featured many of its hallmark traditions, including welcomes from University president Robert J. Zimmer and dean of the College John W. Boyer, AM'69, PhD'75, and a bagpipe procession through Hull Gate. Throughout the week, students could meet and connect by taking part in virtual events, including a presidential debate screening, yoga, tours of UChicago museums, and improv comedy shows.

HIGH-ENERGY PHYSICIST

Theoretical physicist Robert Rosner was elected to the presidency of the American Physical Society (APS) in September. He will take office in 2023 as the eighth UChicago scientist to lead the organization. Rosner, the William E. Wrather Distinguished Service Professor of Astronomy and Astrophysics and Physics, works on fluid dynamics and plasma physics, as well as applied mathematics and computational physics, especially the development of modern high-performance computer simulation tools. As president of APS, Rosner hopes to increase public support for science and expand the ranks of Black and women physicists. Founded in 1899, the APS is active in public and governmental affa rs, publishes multiple science journals, and conducts programs in education, public outreach, and media relations.

IN THE PICTURE

A new center hosted at UChicago seeks to address the COVID-19 pandemic by curating a massive database of medical images to help better understand and treat the disease. The Medical Imaging and Data Resource Center (MIDRC) will create an open-source database with X-rays and CT scans from thousands of COVID-19 patients. Maryellen Giger, PhD'85, the A. N. Pritzker Professor of Radiology, the Committee on Medical Physics, and the College, will co-lead the MIDRC alongside an executive advisory committee that includes members of the American College of Radiology, Radiological Society of North America, and American Association of Physicists in Medicine. The center is funded by a two-year $20 million contract from the National Institute of Biomedical Imaging and Bioengineering at the National Institutes of Health.

ARCHIVAL QUALITY

The Special Collections Research Center wants your help documenting the effects of the COVID-19 pandemic. "Ten, 20 years down the road, people are going to want to see what was happening with our campuses, our students, our faculty—and just how everyone's life got turned upside down," says assistant University archivist Eileen Ielmini. Submissions to the archive can take the form of photographs, objects, art, creative writing, and more. To learn how to donate, visit mag.uchicago.edu/covid19archive.

Clockwise from top left: photography by Jean Lachat; photography by Anna Knott; photography by Jon Chase/Harvard University

Illustration by John Jay Cabuay

INTERVIEW

We cannot talk about Emma Boettcher enough

And other reflections from the author of a new book on Jeopardy!

BY SUSIE ALLEN, AB'09

In a time of national division, Americans still agree on one thing: Alex Trebek. If you talk to people about *Jeopardy!*, "they just light up. Everybody's got a *Jeopardy!* story," says journalist **Claire McNear**, AB'11. She's the author of *Answers in the Form of Questions: A Definitive History and Insider's Guide to "Jeopardy!"* (Twelve, 2020). Her comments on the beloved game show have been edited and condensed.

What has given *Jeopardy!* such enduring appeal?

I think it's both that it is a really good game—you get through 61 questions in a game of *Jeopardy!*—but also that it has a sense of humor about itself.

You've argued that *Jeopardy!* is a sport. Why?

People train for *Jeopardy!* in a way that I think most casual viewers don't understand. They move all their furniture around and practice standing at a podium. James Holzhauer would wear uncomfortable dress shoes. It's always really cold in the studio, so people chill their homes to 52 degrees. It's a mental competition, but a physical one too.

What separates the best contestants from others?

You can ignore all the other pieces of James Holzhauer's strategy and look at the fact that he was almost always right. He averaged one wrong answer per game. He just knows so much.

But then, to get back to the sports part of this, there's the buzzer. People practice to get their buzzer timing just right. The truth is you never really know if you have it until you're up there on the stage playing.

Tell me about the buzzer guru, Fritz Holznagel.

He was a contestant in the '90s, did really well, and got invited back to a series of additional tournaments.

As he was training for this next appearance, he decided that he was going to get really good at the buzzer, because he wasn't going to win on raw knowledge. He ended up writing a book called *Secrets of the Buzzer* that outlines the things he learned. He built his own buzzer and came up with some best practices: you should always use the thumb of your dominant hand, you should always keep your hand in front of you, and you should chug a cup of coffee just before you go on the stage.

Do you have a favorite non–household name *Jeopardy!* contestant?

I think she *is* a household name, but we cannot talk about [UChicago user experience librarian] **Emma Boettcher** enough. I'm not pandering because this is UChicago, I promise. She's so good.

They tape five games in a row. The people arriving to start that five-game day don't know anything about what happened the day before. In her case, the contestants showed up and found out that James Holzhauer had won 32 games and millions of dollars. She got randomly called up to be in the very first game, and she beat him with his own strategy.

My sense is the show's fan community is unusually warm. Is that fair?

As with anything online, it's not universally lovely, but that is mostly right. I think it comes down from the show. They do not refer to people who lose games as "losers." They call them "nonwinners." That spirit has been adopted by the *Jeopardy!* community at large.

It's about celebrating people doing this weird thing that they love and they're good at. One of the great things about *Jeopardy!*—and one of the things about it that reminds me of UChicago a little bit—is that it's just a lovely place for dorks. ◆

READ MORE AT MAG.UCHICAGO.EDU/MCNEAR.

ALL TOGETHER NOW

A historic campaign brought thousands together to invest in UChicago values.

BY LAURA DEMANSKI, AM'94

On the last day of 2019, the University of Chicago Campaign: Inquiry and Impact reached a successful close. With contributions from more than 160,000 individuals—nearly half of them alumni—the campaign raised $5.43 billion, surpassing its original $4.5 billion goal and an expanded target of $5 billion. The campaign topped another key goal by engaging more than 125,000 alumni through giving, volunteering, or attending University programs and events.

These outcomes speak loudly about the shared commitment of readers like you to this place. President **Robert J. Zimmer** called the five-year effort "the most ambitious and comprehensive campaign in University history—with the goal of engaging our full community in support of the University's aspirations, built upon the foundation of our distinctive and enduring values" when he announced the final results on February 25.

REVOLUTIONARY DISCOVERIES AND NEW WAYS OF THINKING, LIKE THOSE THAT FILL THIS INSTITUTION'S HISTORY, ARE NEEDED NOW MORE THAN EVER.

Less than a month later, the coronavirus pandemic was spreading around the globe. Campus closed and many plans, including those to celebrate and mark the campaign's success, had to change. Among them was a feature in this magazine, which we set aside in order to report on the dramatic effects COVID-19 was having on the UChicago campus and community.

Those effects continue, but the life of the University goes on, adapting to extraordinary times that put our shared values into action. Revolutionary discoveries and new ways of thinking, like those that fill this institution's history, are needed now more than ever. The same is true of minds shaped by UChicago's distinctive education, and the kind of impact that only rigorous critical thinking built on evidence can produce. These are the ideals that the campaign—and your commitment as alumni, parents, faculty, staff, and friends—supported and is helping to realize already.

In short: thank you.

Photography by Soaring Badger Productions

SUCCESS STORIES

How is the UChicago Campaign: Inquiry and Impact making a difference? Let us count just a few of the ways.

To see more of what you made possible, visit campaign.uchicago.edu.

A TRANSFORMATIVE EDUCATION

Through the Odyssey Scholarship Program, the University removes financial barriers so that talented and ambitious students can access UChicago's transformative undergraduate education with no debt expectations for them or their families.

Expanded financial support for graduate students helps attract the highest caliber and diversity of students and enables them to focus on completing their degrees and preparing for careers in the academy or outside of it.

By the numbers

$5.43 BILLION

Total raised during the University of Chicago Campaign, surpassing both the original target of **$4.5** billion and the expanded **$5** billion goal. Includes **534,080** gifts, with **232,928** of those under **$100**.

SHAPING AND DEFINING FIELDS

UChicago researchers at the Pritzker School of Molecular Engineering—the country's fi st school of its kind—are designing and building technology, from the molecular scale up, to confront critical issues facing society, such as climate change and human disease.

UChicago Arts creates space and opportunities for scholars and artists to catalyze creativity and foster connection, collaboration, and cultural exchange on the South Side and throughout Chicago.

At interdisciplinary centers, humanists, scientists, and social scientists work together to develop new insights into complex questions, like the roots of religious confli t and the evolution of censorship.

Physician-scientists at UChicago Medicine and partners at the affil ted Marine Biological Laboratory work to fine-tune the interactions of genetic factors, the immune system, and the microbiome to promote wellness and fig t cancer, Alzheimer's, and autoimmune diseases like celiac and Crohn's.

LOCAL AND GLOBAL IMPACT

The University has strengthened its commitment to the city of Chicago and its residents with civic engagement efforts and investments in urban policy studies, driving new opportunities for urban research and impact.

Researchers are taking an interdisciplinary and evidence-based approach to understanding cities to realize the full potential of urbanization in Chicago and around the globe—enhancing environmental sustainability and education, creating effective urban policy, and more.

Investments in entrepreneurship and venture creation, informed by business expertise from Chicago Booth, bring innovative ideas to life in order to better human lives.

Global centers and campuses in Beijing, Delhi, Paris, Hong Kong, and London connect scholars and experts around the world in pursuit of deeper and broader knowledge.

$793.2M in scholarships and financial aid, **2X** the amount given during the last campaign

134,284 alumni engaged with the University, surpassing the original goal of **125,000**

164,762 individual donors from **121** countries and all **50** states (**90,703** were first-time donors)

19,312 faculty, staff, and student donors contributed **$213.8M** to the campaign

111,262 alumni attended one of **10,228** events held in **76** countries during the campaign

LOVE THY NEIGHBOR

David Nirenberg studies the intertwined—and sometimes violent—histories of faith communities.

BY LUCAS MCGRANAHAN

David Nirenberg has written about the representation of Jews and Muslims in the *Cantigas de Santa Maria*, an illustrated collection of poems from 13th-century Iberia.

Album / Alamy Stock Photo

"I became a historian in part because I really believe in ambivalence," says **David Nirenberg**, the Deborah R. and Edgar D. Jannotta Distinguished Service Professor in History and interim dean of the Divinity School.

Beginning with his dissertation at Princeton University—the basis for his first book, *Communities of Violence: Persecution of Minorities in the Middle Ages* (Princeton University Press, 1996)—he has argued that religious violence in the Middle Ages had both "associative and dissociative" effects, enabling the existence of a pluralistic society while also containing the seeds of its destruction. For that project, he drew on the extensive archives of the Crown of Aragon, a kingdom based in what is now eastern Spain from the 12th to the 18th centuries, in which Jews, Christians, and Muslims coexisted in high numbers.

A key example Nirenberg analyzed at length is the violence that occurred for centuries in Iberia and other parts of Europe during Holy Week, the week immediately preceding Easter in Christianity. Alongside the ritual reenactment of the Passion (the capture and crucifixion of Jesus), Holy Week in many places just as reliably featured the harassment of the local Jewish community, predicated on their supposed collective responsibility for Jesus's death. Although Jews in Aragon were officially protected by the king, each year Christian clerics would incite their flocks to steal Jewish artifacts, stone Jewish dwellings, and sometimes wound or even kill Jews. Muslims, as fellow believers in Jesus's revelation—Jesus is a prophet, but not a divinity, in Islam—would sometimes join Christians in these attacks.

To Nirenberg, the most remarkable fact about Holy Week violence is how constrained it usually was. Overt aggression was limited. "Stoning" was usually of buildings, or of the walls of the Jewish quarter, not people. Much of the harassment, spearheaded by children, was more prankish than bloodthirsty in tone. Nirenberg's conclusion: this constrained aggression represented an annual reaffirmation of Christians' historical ties to, as well as differences from, the Jewish people, channeling animus into ritual so as to allow for the communities' peaceful coexistence for most of the year. But on the rare occasions when that violence jumped its channels, it could be disastrous, resulting in mass murder and mass conversion.

THE MOST REMARKABLE FACT ABOUT HOLY WEEK VIOLENCE IS HOW CONSTRAINED IT USUALLY WAS. OVERT AGGRESSION WAS LIMITED.

Nirenberg was not condoning violence. Nor was he denying that even the most constrained forms of Holy Week violence were terrifying to those who suffered it. His point, rather, was that there was something ambivalent in it, a way of affirming "the continued existence of Jews in a Christian society, while at the same time articulating the possibility of and conditions for their destruction."

By the time a new edition of *Communities of Violence* was released in 2015, Nirenberg had gone on to publish *Anti-Judaism: The Western Tradition* (W. W. Norton, 2013), a sweeping "account of the labor done by Judaism in the workshops of Western thought"—notably, the labor of serving as a target for projections over millennia, a figure of thought used by Christians, Muslims, and many other cultures as they articulated their fears and their ideals.

He had also returned to Iberian archives to write *Neighboring Faiths: Christianity, Islam, and Judaism in the Middle Ages and Today* (University of Chicago Press, 2014), further articulating the idea of religious communities bound by "a fundamentally ambivalent form of neighborliness," always defining themselves in relation to one another, in intimate, tolerant, and violent ways that cannot easily be parsed.

With these and other works examining the lives of faith communities, Nirenberg has emerged as a leading scholar of the Abrahamic religions.

Photography by John Zich

As a Muslim, Christian, or Jew seeking guidance from prophets and scriptures of the distant past, figuring out what you're supposed to do, how you're supposed to live, is a kind of historical work," Nirenberg says. Claims about what a passage of a sacred text might mean, or what we should learn from the teachings of a founding figure who lived long ago, are often made by believers in historical terms.

The history of religions is also important to nonbelievers. A case in point is religious hate speech. Last year Nirenberg consulted with Facebook on its hate speech policy, a troubling issue for the tech giant given the sheer volume of invective it plays host to, including a high-profile incident in 2017 when the platform was instrumental in fanning the flames of anti-Muslim persecution by Buddhist nationalists in Myanmar. The United Nations issued a 2018 report on the country that called Facebook "a useful instrument for those seeking to spread hate."

Nirenberg was asked to bring a historical perspective. Whether it is anti-Semitic attacks in the United States or the 2019 mosque attack in Christchurch, New Zealand, it's clear that religious ideas from the past are being deployed on social media to mobilize violence, something Facebook's policies forbid. But when it comes to deciding what expressions should be blocked as religious hate speech, he says, "it's not always easy to figure out where to draw the line between material that advocates violence and material that expresses a religious tradition or ideal."

He gives the example of the 2018 Tree of Life synagogue shooter in Pittsburgh, whose social media account profile included a quote from the Gospel of John—John 8:44. In that verse, Nirenberg says, Jesus refers to Jews and Pharisees as children of Satan. "The passage has been used to incite anti-Jewish violence for centuries. Does that mean John 8:44 and other anti-Jewish passages of the New Testament should always be flagged on social media as hate speech? That would raise serious questions about religious freedom." The same, he adds, could be said of the sacred texts of many other faiths. History "gives us a certain purchase on the present," Nirenberg says, but "it doesn't give us rules for how to separate our hatreds from our faiths, values, and ideals."

Currently the interim dean of the Divinity School, Nirenberg was formerly dean of the Social Sciences Division and founding director of the Neubauer Collegium for Culture and Society.

THE REAL DANGER IS IMAGINING THAT IT IS ONLY THE OTHER [SIDE] WHERE ANTI-JUDAISM IS DOING ITS WORK.

What is clear is that the shooting came as part of a renewed wave of anti-Semitism in recent years, which may have gained further traction in the past few months. Facing a pandemic and global economic meltdown, people are indulging in conspiracy theories to make sense of a chaotic world, and as Nirenberg's scholarship details, the Jews have long been cast in the role of a nefarious, behind-the-scenes orchestrator of global events. At the same time, nationalist movements in the United States and Europe are trafficking in the timeworn idea of Jewish people as cosmopolitan outsiders, "globalists" alien to the true essence of national cultures.

Nirenberg told the *New York Times* in 2019 that the "electoral utility of anti-Semitism feels new to me, newly flexible, and therefore newly dangerous." He cautioned in a *New Yorker* interview in January that these attitudes can be found anywhere: the right accuses the left of anti-Jewish sentiment for its criticism of Israel, while the left points to White nationalism on the right, but "the real danger is imagining that it is only the other [side] where anti-Judaism is doing its work."

"We historians hate the word 'unprecedented,' because it threatens to put us out of work," Nirenberg said, kicking off a lecture about plagues and faith—part of a series of virtual Harper Lectures offered this past summer as COVID-19 traversed the globe. "If something is unprecedented, then the study of the past has nothing to offer the present."

Among the precedents to COVID-19 Nirenberg discussed were multiple outbreaks of plague, including one that eradicated about half of Europe's population in the 14th century; the scourge of smallpox brought by colonists to the Americas, which may have killed 90 percent of the Indigenous inhabitants of the Western Hemisphere; and the influenza pandemic of 1918 that resulted in tens of millions of deaths worldwide.

UChicago's own Core curriculum, he pointed out, is marked by pestilence: "the plague that opens the *Iliad*, or the plague that struck the Israelites in Exodus, both of which, by the way, precipitated debate and protest against authorities—against Agamemnon and Moses, respectively."

Today as ever, the turmoil of an outbreak is compounded by our lack of understanding. Science may have improved, but a new pandemic can still trigger what Nirenberg calls "ground-zero empiricism," borrowing a term from historian of science **Lorraine Daston** of the John U. Nef Committee on Social Thought. Confronted with a new disease, we are thrown back on direct observation, piecing together patterns, our public health efforts proceeding in fi s and starts.

Another thing that hasn't changed is that we look to religion to fill the gaps, or at least to provide a framework for making sense of human suffering. Nirenberg cites a nationwide poll he and his colleagues conducted last spring in collaboration with the Associated Press-NORC Center for Public Affairs Research. Over one quarter of the respondents said their faith has been strengthened by the pandemic, and 63 percent said that God is using the coronavirus to send a message to humanity about how to live. "This pandemic theodicy is fascinating," says Nirenberg. "I studied the medieval religious movements occasioned by the Black Death in my dissertation. I never imagined that 30 years later I could do surveys about similar phenomena in my own society."

Still, the same poll showed strong support for restrictions on in-person church services to curb infection rates, despite the fact that most respondents also considered religious freedom an important political right. Heartened by this mix of responses, Nirenberg again notes a kind of ambivalence—not in the negative sense of vacillating or lacking conviction, but in the positive sense of maintaining a balance or equilibrium among opposing forces.

There are tensions between ideals in every culture, he says, which is why we need to cultivate

an important political virtue: that of resisting the tendency "to amplify tensions between different rights by turning them into zero-sum conflicts."

In his short story "Blue Tigers," Jorge Luis Borges describes a baffling find: a stash of circular blue pebbles, located by an intrepid Scottish professor outside a remote village in colonial India, that cannot be counted. Count them twice and the number differs. Spill them on the ground and they seem to multiply or diminish. Mark a pebble to track it and the markings disappear.

The problem, in mathematical terms, is that the blue pebbles violate the principle of identity: they are not identical to themselves. Our protagonist, an expert on logic, finds this result intolerable—the pebbles become a nightmarish obsession.

HE SEES THE BOOK AS SIMILAR IN SPIRIT TO HIS WORK ON RELIGION. BOTH ARE ATTEMPTS TO GRAPPLE WITH THE LEGACY OF HUMAN BEINGS' MOST FUNDAMENTAL CONCEPTS.

Nirenberg is less put off by the rascally rocks. In fact, with the exception of certain mathematical objects, he denies that anything is a stable, discrete, countable entity. Or rather, "everything is from one point of view or another a blue pebble or a countable pebble, and it's up to us what approach we want to take, depending on the question we want to ask." Even an actual pebble—a normal, non-Borgesian one—can be viewed as an open-ended process without clear boundaries. Stick it on an abacus, and the pebble is eminently countable. Reduce it to chemical analysis, or zoom out to a cosmological timescale, and the pebble as such disappears. How we think about it depends on our purposes, contexts, and forms of attention.

Bearing this point in mind, Nirenberg has recently coauthored a book, forthcoming from the University of Chicago Press, that defends the freedom to approach objects of inquiry—whether physical objects, social phenomena, or our own minds—as countable or "blue" pebbles. It's a philosophical point, but it's also a point about academic and human freedom, that is, our "basic freedom to decide under what kinds of conditions we want to treat our objects of knowledge."

While the book explores the power of mathematics and quantification, it aims to understand that power in relation to many other forms of thought and knowing, among them dreams, religion, music, and poetry. Nirenberg sees the book as a call to attend to threatened aspects of the human, not as a defense of the humanities. But it is also an argument for the ongoing importance of humanistic fields like history, literature, and philosophy.

Nirenberg describes the perspective of the book, titled *Uncountable: A Philosophical History of Number and Humanity from Antiquity to the Present*, as one of ambivalence: "There are plenty of books out there on the evils of number, and there are plenty of books out there on, you know, the limitations of the humanities," he says. "What I'm trying to do is hold these things together."

He sees the book as similar in spirit to his work on religion. Both are attempts to grapple with the legacy of human beings' most fundamental concepts: "How we think about number and its powers affects everything humans have done."

The book's other author, Ricardo Nirenberg, is not a historian but a retired mathematics professor—and David Nirenberg's father. The book is an intergenerational as well as interdisciplinary affair.

Father and son's formal collaboration began in 2011 when they cowrote an article on the philosophical implications of set theory for *Critical Inquiry*, but they have been thinking together, across different forms of knowledge, for a long time. "He made me memorize the *Odyssey*, Book I, in ancient Greek; he taught me Euclidean

geometry," David recalls of his childhood.

The set of the Nirenbergs increased by two when David and his twin brother, Sergio, were born, soon after the family immigrated to the United States from Argentina. After bouncing around the globe for a few years—Ricardo held a series of academic appointments in Europe and the United States while taking the family back to Argentina each summer—they settled down in Albany, New York, when David was about seven.

David's mother Isabel, a computer programmer, worked on experiments carried out on spacecraft in the late 1970s before making a career in information technology at the State University of New York at Albany, where Ricardo was a professor. In the 1980s, she consulted for Time Life Books to help produce some of the first how-to guides for home computers. Along with Ricardo, she has also run the online literary journal *Offcourse* since 1998.

Living in Upstate New York, David understood that his immigrant family was not the norm. His response was to embrace being different. "My twin brother took one route into this experience of becoming American … baseball and hockey and stuff like that," he says. "And I took the other route, which was to try to remain exotic." He became addicted to Argentine tea—maté, which he still drinks regularly—and increasingly attracted to the Spanish-speaking world.

This posture went beyond adolescent self-styling and helped fuel his budding scholarly interests. "Not sounding like everyone around me, having a different language at home—it created a kind of interest in multiculturalism."

But biophysics, not history, was his first path when he arrived at Yale for college. "I became a medieval historian because I heard a fantastic lecture on the history of the number zero," he says, grounding his scholarly origin in a chance event that, in retrospect, lends a full-circle quality to his new book with his father.

Nirenberg draws inspiration from a variety of sources—even administrative roles. A man of many titles, he is interim dean of the Divinity School and former dean of the Division of the Social Sciences. He was executive vice provost. He was founding director of the Neubauer Collegium for Culture and Society. He sits on boards. He doesn't sit still.

He says his proudest administrative achievement was serving as founding faculty director of the Neubauer Collegium from 2012 to 2014. It was "a marvelous experience, working to create a space in which people could come together in pursuit of ideas."

A benefit of serving as dean of the social sciences was how it encouraged him to read his colleagues' research in a systematic fashion across all the division's disciplines. Every faculty member submits an annual report with samples of their scholarship—and he would read them all. "My administrative role proved invaluable in writing the chapter on the social sciences in this book with my father," he says, citing guidance from economists **James Heckman** and **Lars Peter Hansen** about such topics as policy invariant structural parameters and transitive preferences, as well as discussions with psychologist **Leslie Kay** about olfactory functioning in rats.

Teaching has also been fruitful for his research. In Spring Quarter 2009, participating in the inaugural year of the University's Study Abroad program in Jerusalem, Nirenberg had the opportunity to teach a group of students that was a microcosm of the faith communities he studies: a third Christian, a third Muslim, and a third Jewish. The students began deeply suspicious of each other, but he says they opened up in a remarkably short time. "Within a week they were wondering how they could ever have thought that they couldn't talk to each other."

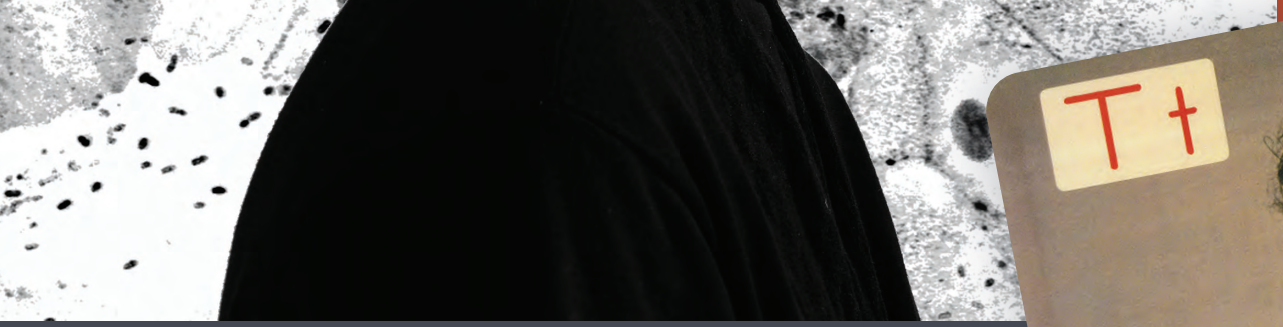
Although he had spent much scholarly effort "to deflate the idea that if we all simply knew more about each other we would all get along," the classroom discussions made him more hopeful about the power of fostering mutual understanding, especially through the study and teaching of history. The experience inspired him to write *Neighboring Faiths* in a more optimistic and constructive spirit than *Communities of Violence*.

Historians usually focus on the critical and deconstructive rather than on the constructive sides of their work, he says. But both sides are real, and "the stories and histories we tell can do a lot to either set us apart or bring us together." ◆

X is for extra-special.

Y is for young.

Z is for zip.



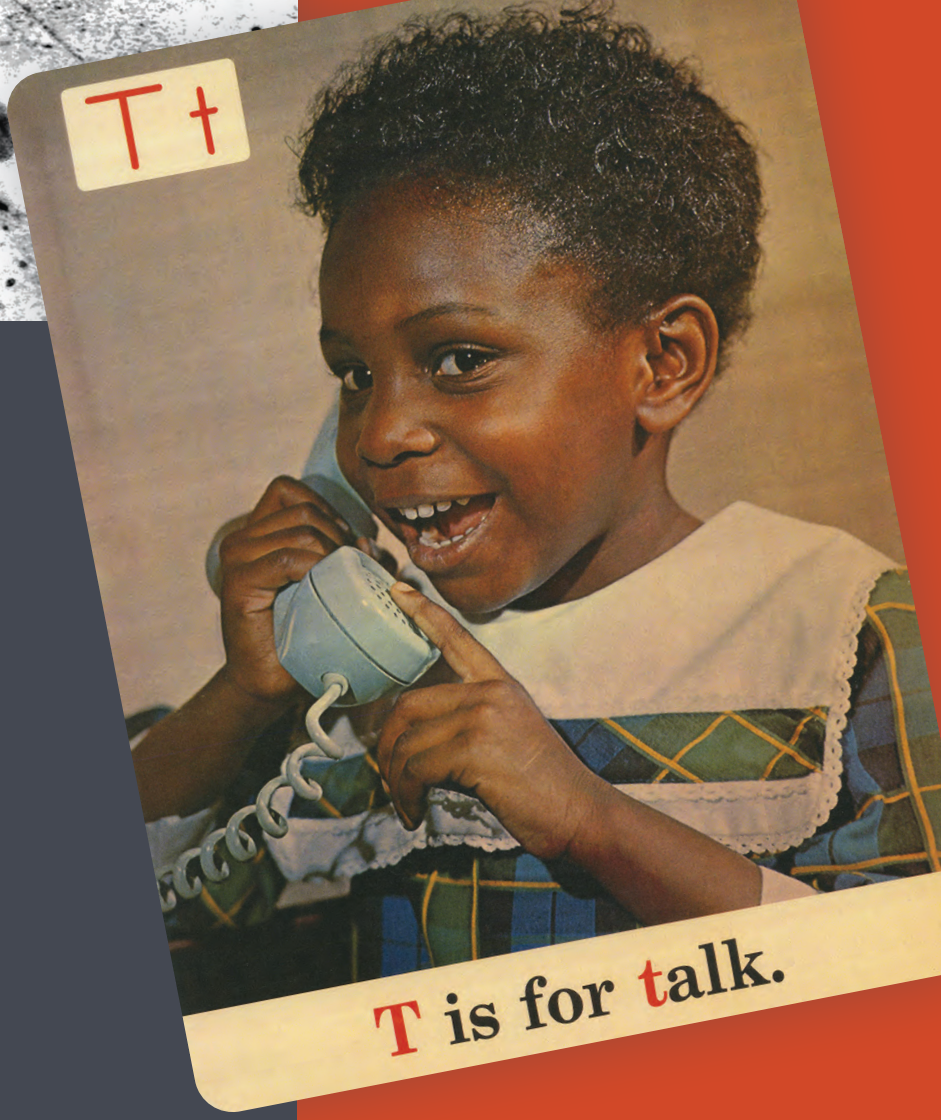
ARTS

SOUL PRIMER

An Arts Incubator exhibition uses the Black ABCs to chronicle the lives of South Siders.

BY ANDREW PEART, AM'16, PHD'18

PHOTOGRAPHY BY OKUNOLA JEYIFOUS, PHD'05



Cheryl Reese was "T is for talk" as a child. She and five other alumni of the Society for Visual Education's Black ABCs had their present-day portraits taken for the exhibition *S Is for Soul Sister.* (All alphabet card images courtesy Arts + Public Life)

First released to educators in 1970, the visual learning aid known as the Black ABCs was designed to help young students learn to read with portraiture and language that reflected them. As the *Chicago Defender* wrote that year, the 13″ x 17″ posters aimed to ensure that "Black children see themselves in the majority (as they are, in fact, in many areas and many schools) as important, capable, attractive, responsible, and with a long history of contributions to our country." Fifty years later, the Black ABCs remain a symbol of racial identity and pride, suffused with the aesthetic of the Black arts movement and a belief in empowerment through education.

These alphabet posters also documented history. The pictures for "A is for afro," "G is for groovy," and the 24 other letter-association cards were photographed at the Harold Ickes Homes, showcasing children living in the now-demolished public housing project on Chicago's Near South Side. To create the Black ABCs, educator and activist June Heinrich, AB'40, AM'41, who specialized in early-education teaching programs, worked with Bernadette Triplett, an elementary school teacher and later assistant principal at the Richard E. Byrd Community Academy near the Cabrini-Green Homes. Heinrich and Triplett produced their "soul primer," as the *Defender* called it, for the Society for Visual Education, cofounded in 1919 by several UChicago faculty members.

Photographer and University of Chicago neurobiologist **Okunola Jeyifous**, PhD'05, revisited the Black ABCs for the exhibition *S Is for Soul Sister*, working with the University's Arts + Public Life (APL) initiative to locate some of the Chicagoans who appeared on the cards as children. Jeyifous shot present-day portraits of six such subjects for the exhibition and, with the help of APL staff, recorded their oral narratives to create an audiovisual experience for the exhibition's January 17 through March 18, 2020, run at the Arts Incubator on East Garfield Boulevard.

The idea to document and deepen the story of the Black ABCs emerged from extensive conversations with exhibitions coordinator **Hannah Jasper** and other APL staff members. Cheryl Reese, who appeared on the "T is for talk" card as a child, offered Jeyifous and his collaborators their initial leads in locating other Black ABCs alumni.

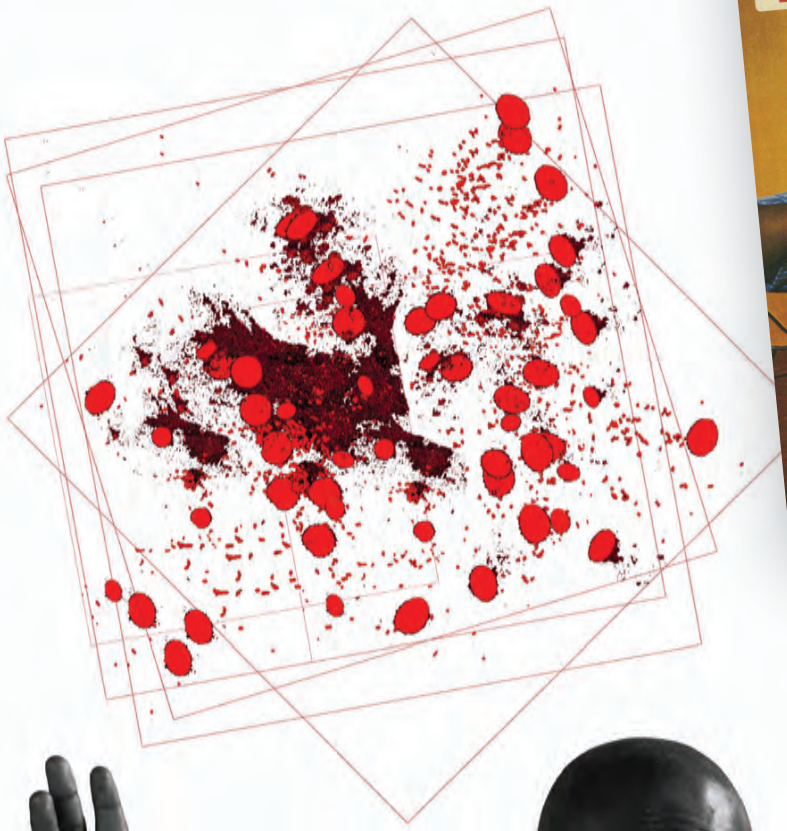
Jeyifous also switched lenses to deepen the original series' treatment of group identity. Where the Black ABCs give his subjects an iconic status as exemplars of Black cultural identity, Jeyifous wanted his artworks to "personalize" them, down to the cellular level, and to situate them in a way that would "amplify their stories." A research assistant professor in neurobiology at UChicago, Jeyifous used his expertise in high-resolution microscopy and cell imaging to supplement his photographic portraits. At the time of their interviews, the portrait subjects gave Jeyifous cheek-swab cell samples that he stained with reagents, imaged with a microscope, and processed with digital software. Jeyifous collaged pictures of the subjects' cells with their new portraits to create what he calls "micro and macro portraiture."

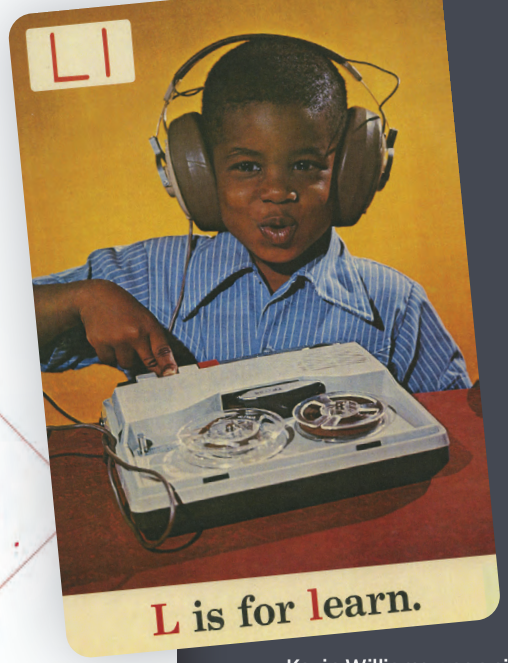
With his collaged portraits on one wall of the Arts Incubator gallery and the 26 letters of the Black ABCs on another, Jeyifous points out, the exhibition showed the subjects and "the arc of their lives in a single space."

To Jeyifous, *S Is for Soul Sister* fits into a body of work he's amassing as a photographer drawn to "memories of place." As a scientist, he's always been interested in the neurological basis of self-identity—how we come to know ourselves as ourselves—and his PhD work focused, as he puts it, on "how short-term experience gets turned into long-term storage of memories." *S Is for Soul Sister* allowed him to explore these themes through the personal histories of six individuals connected by the social history of Chicago's 20th-century experiment in public housing. ◆

TO READ MORE ABOUT *S IS FOR SOUL SISTER*, AND FOR A LOOK BACK AT THE ARTS INCUBATOR EXHIBITION, VISIT MAG.UCHICAGO.EDU/SOULPRIMER.

Denise Carter appeared as "B is for beautiful" in the Black ABCs. Sabrina Whittington's ("C is for cool") oral narrative for the exhibition describes music bringing people together in the common spaces of the Harold Ickes Homes. It was a fond memory of a tight-knit community. As APL assistant director of communications Erin Venable recounts, the music "was just this groove throughout the whole complex."





Kevin Williams was a six-year-old in the Ickes Homes when he posed for "L is for learn." He remembers walking to school with friends from the Ickes. "It was like one family. You knew so many people." Reggie Corner was "R is for read."


Pp
P is for proud.


O is for old.


Qq
Q is for quick.


Rr
R is for read.


Ss
S is for soul sister.

SINGING FOR THE PINE TREES ARE STORMY WINDS

Meteorologist Tetsuya Theodore Fujita (1920–98) led a tempestuous career.

BY MAUREEN SEARCY

Radar has a blind spot directly above the antenna, so when a funnel cloud spun out of the sky over Raleigh-Durham International Airport at about 1 a.m. on November 28, 1988, there was no notice. The day had been unseasonably warm, reaching 75 degrees, yet no watch had been issued when the tornado—a four out of five on the Fujita Tornado Damage Scale—sent a tree crashing through our roof.

The sun rose with the buzz of chainsaws, neighbors chopping up so many felled pines that it smelled like Christmas. Our split-level was skewered by a branch through the attic and into the upstairs bathroom. My classmate's house was sheared in half, open like a dollhouse; we could see her mother upstairs talking on the still-functional telephone. My sister's classmate was killed. More than 2,000 homes were damaged, 1,000 people left homeless.

No one knows the wind speed of that tornado. Even now, scientists can't directly measure the most powerful twisters; their equipment can't withstand the force. The F Scale—developed by UChicago meteorologist Tetsuya Theodore Fujita, who surveyed that storm's wreckage—is based on the level of devastation, gleaned from the aftermath.

Born in 1920 on the Japanese island of Kyushu, Fujita grew up visiting nearby volcanos, "observing the angry face of our living planet," he wrote in *Memoirs of an Effort to Unlock the Mystery of Severe Storms*. The book, published by the Department of Geophysical Sciences in 1992 to commemorate his 50 years in meteorology research, testifies to the scientist's observant—and sometimes poetic—nature: it includes Fujita's chronicle of a slowly melting mountain of plowed snow, a gallery of praying mantis "friends" in his backyard, and his translation of a Japanese folk song about a castle in ruins, surrounded by storm-blown pines.

In 1939 Fujita was accepted to both Hiroshima College and Meiji College of Technology. Minding his late father's wishes, Fujita chose the latter. There he studied mechanical engineering but assisted a geologist, who put him to work creating bird's-eye views of local volcanic craters using topographic maps. After graduating in 1943, he stayed on as an assistant professor of physics.

On August 6, 1945, the United States dropped an atomic bomb on Hiroshima. Three days later, a second bomber approached its target: Kokura Arsenal, three miles from Meiji College. While he and others sheltered, air-raid sirens sound-

UChicago Photographic Archive, apf1-09832, University of Chicago Library

Ted Fujita (left) conducted much of his tornado research from the air, surveying more than 300 tornado paths from a low-flying Cessna between 1965 and 1991.

ing, the bomber found its intended target obscured by clouds and rerouted to Nagasaki.

Fujita was among the Meiji College faculty and volunteer students sent to Nagasaki and Hiroshima in the ensuing weeks to document the effects of the bombs' fireballs and shock waves. He noted something peculiar: broken trees radiating out from ground zero in a starburst pattern. He would see this again in the United States, where the majority of Earth's tornadoes strike, and would draw enlightening comparisons between nuclear shock waves and severe weather.

In the days following that 1988 Thanksgiving weekend storm, Fujita's UChicago research team traveled to North Carolina to examine the damage, collecting evidence like detectives investigating an assault. It was one of more than 300 tornado crime scenes he surveyed between 1965 and 1991, mostly from a low-flying Cessna, with his wife, Sumiko Fujita, and a roster of students, staff, and colleagues. During these flyovers, they looked at the paths of destruction, noting differences in damage along the way and concluding that tornado behavior fluctuates. A twister is not so much an entity as a process. Fujita's documentation served to both qualify the behavior and quantify its effects.

The F Scale was shaped by those postmortems. Broken branches: F0, light damage. Boxcars pushed over: F2, considerable damage. Strong frame houses demolished, trees debarked: F5, the highest level of the Fujita Scale, marking incredible damage. Based on those observations, he assigned estimated wind speeds. (The Enhanced Fujita Scale, which considers more granular markers of damage, was implemented by the National Weather Service in 2007.)

No tornado has ever scored higher than an F5, because the associated damage at that stage is complete and utter destruction. But technically, Fujita's scale goes much higher, bridging the Beaufort Scale, used by sailors to estimate wind speed based on observations of the sea, and Mach numbers, the ratio of an object's speed to the speed of sound. Fujita's F1 matches Beaufort 12—hurricane wind speeds—and F12 equals Mach 1—the speed of sound.

Fujita published his proposed tornado scale in 1971, but it needed a high-profile event to take root. On April 3, 1974, a tornado touched down in Morris, Illinois, around noon. Over the next 17 hours, 148 confirmed tornadoes tore through 13 states and Ontario, Canada. Following the 1974 Super Outbreak—one of the worst tornado outbreaks on record—Fujita and his team took a whirlwind airplane tour of more than 10,000 miles, surveying the ruins.

That investigation yielded thousands of photographs, radar and satellite images, and interviews. It amounted to the most sophisticated tornado survey to date. Fujita was able to illustrate his F Scale with real-life examples, standardizing a system his peers had considered too arbitrary.

He also gathered evidence for a theory he had posited years before, that smaller tornadoes—suction vortices—could form inside and rotate around the core of the parent tornado. His theory was based on the observation of cycloidal marks (imagine a stretched-out spring) in open fields, previously thought to be scratches in the earth where a large object was dragged across the ground. Using a telephoto lens, Fujita discovered the tracks were actually piles of debris, sucked up and laid down by these internal vortices. This theory explained why one house could be demolished while the one next door was left untouched.

No one had ever seen such a configuration, so Fujita's colleagues dismissed him, not for the first or last time. But film of the Super Outbreak captured the multiple suction vortices, confirming his theory. His crime scene reconstructions revolutionized storm risk assessment and climatology studies, positioning him as the country's leading expert and earning him the nickname Mr. Tornado.

Fujita is best known for his tornadic affections, thanks to the eponymous F Scale, but he also studied cloud migration, hurricanes, and thunderstorms. The last brought him to UChicago. While still in Japan, wishing to earn more income in the postwar economy, Fujita received a grant to draw weather maps. Using the atmospheric data collected by weather stations, he paid close attention to localized conditions rather than the larger cold and warm front trends most mapmakers favored. He saw meaning in the small variations and came to focus on mesometeorology, the study of midsized atmospheric phenomena.

Fujita was able to illustrate his F Scale with real-life examples, standardizing a system his peers had considered too arbitrary.

In 1947 Fujita climbed to the top of Seburi Mountain to document a thunderstorm, recording temperature, wind speed, and air pressure in 10-minute intervals. He noticed pressure anomalies inside the thunderstorm that indicated the presence of a downdraft, down-flowing air currents now known to be a characteristic of every thunderstorm.

In a 2020 PBS *American Experience* documentary, **Greg Forbes**, SM'73, PhD'78, severe weather expert for the

Weather Channel and a Fujita student, explains how the mountaintop experiment put Chicago on Fujita's radar. After one of the conferences where he presented his largely ignored downdraft hypothesis, someone handed him a report on thunderstorm research salvaged from the garbage at a nearby American military installation. It was written by Horace Byers, UChicago meteorologist and director of the US government's collaborative Thunderstorm Project.

His "vision of the world was no more than that of a small frog in a deep well."

As a scholar of similar weather, Byers might be more receptive to his ideas, Fujita thought, so he mailed English translations of his papers to UChicago, including his research on downdrafts. Byers—whose team had separately discovered downdrafts—was impressed with Fujita's independent finding and invited him to the University as a visiting research associate.

Fujita reflects in his memoirs that, having strayed no further than 30 miles from his birthplace as a child, his "vision of the world was no more than that of a small frog in a deep well." In 1953 he traveled to Chicago, spending the first of hundreds of airplane rides sketching cross sections of clouds. For the flight he borrowed $650, the equivalent of more than $6,000 today, and he had $22 on him—the maximum allowed per Japan's postwar foreign-currency rules. In San Francisco he boarded a train with a three-day supply of fig bars and Coca-Cola, which sustained him until he checked into International House on 59th Street. Three years later, after returning to Japan briefly, Fujita brought his family back with him to Chicago, taking up the directorship of the Satellite and Mesometeorology Research Project.

While he conducted his revolutionary tornado research at UChicago, inspired by his move to the Midwest, Fujita's early work on straight-line (nonrotational) winds continued. His early downdraft observations in Japan—and his peers' indifference—foretold a coming storm of controversy. After Eastern Airlines Flight 66 crashed in 1975 while landing at JFK International Airport during a thunderstorm, killing 113 passengers and crew, the airline asked Fujita to investigate. He came to suspect that the crash was caused by an unknown form of wind shear—a rapid change in wind speed and direction—he later called a "microburst."

Flying over the Super Outbreak the previous year, Fujita had noticed a familiar pattern that couldn't be explained by the tornadoes: fallen trees in a starburst pattern, like those felled by the atomic shock waves in his home country. He had modeled airflow based on the damage and deduced a powerful downdraft that produces an outburst of damaging winds near the ground—essentially an explosion of air from a thunderstorm. Based on that model, combined with reports from pilots who landed around the time of the crash, flight recorder data, and an airport anemometer, he concluded that a microburst brought down the plane.

When he published a paper about the crash, the meteorology community lambasted him. In newspapers across the country, meteorologists told reporters Fujita had misinterpreted the evidence and was merely renaming the well-known typical downdraft found in thunderstorms. Notably, the paper in question was not published in a peer-reviewed journal. Most of Fujita's research was publicized through University of Chicago project reports and conference proceedings, adding to the controversy over his methods.

To capture evidence, Fujita conducted a set of experiments in Chicago's western suburbs using Doppler radar. The radar directly detected microbursts, yet the dispute persisted, splitting the community into what Fujita called "bursters" and "anti-bursters." It wasn't until 1985—after at least six major airplane crashes now attributed to wind shear and a near miss involving Air Force One, carrying President Ronald Reagan—that prevailing opinion shifted. A jumbo jet that crashed at Dallas-Fort Worth had a digital black box that recorded more types of data than earlier analog flight recorders. From that data Fujita was able to conclusively prove that a microburst downed the plane. The Federal Aviation Administration rushed to install Doppler weather radars at major airports to help detect wind shear conditions—as well as tornadoes that form outside the blind spot.

Fujita was frequently dismissed and disavowed by the meteorology community for his unconventional style, and only accepted, case by case, when he presented incontrovertible proof. But he relied on that style—observational, inferential, exhaustive—to reveal weather behavior his critics could not see. "He had a very different path as a scientist," says geophysical sciences professor **Noboru Nakamura**, who joined UChicago just after Fujita retired from teaching. "I had the fortune of talking to him until he died in 1998," he says. "He had a story to tell." That story was based on a lifetime of looking.

During a microburst experiment near Denver in 1982, Fujita, who had been studying severe weather for 40 years, finally witnessed a live twister. He was "as giddy as I've ever seen him," former student **Roger Wakimoto**, PhD'81, told PBS. He celebrated with a drinking party and later on with a cake, icing inscribed with, "Mr. Tornado sees his first." ◆

METEOROLOGY

PILOT PROGRAM

The Chicago school of meteorology found and made waves.

BY MAUREEN SEARCY

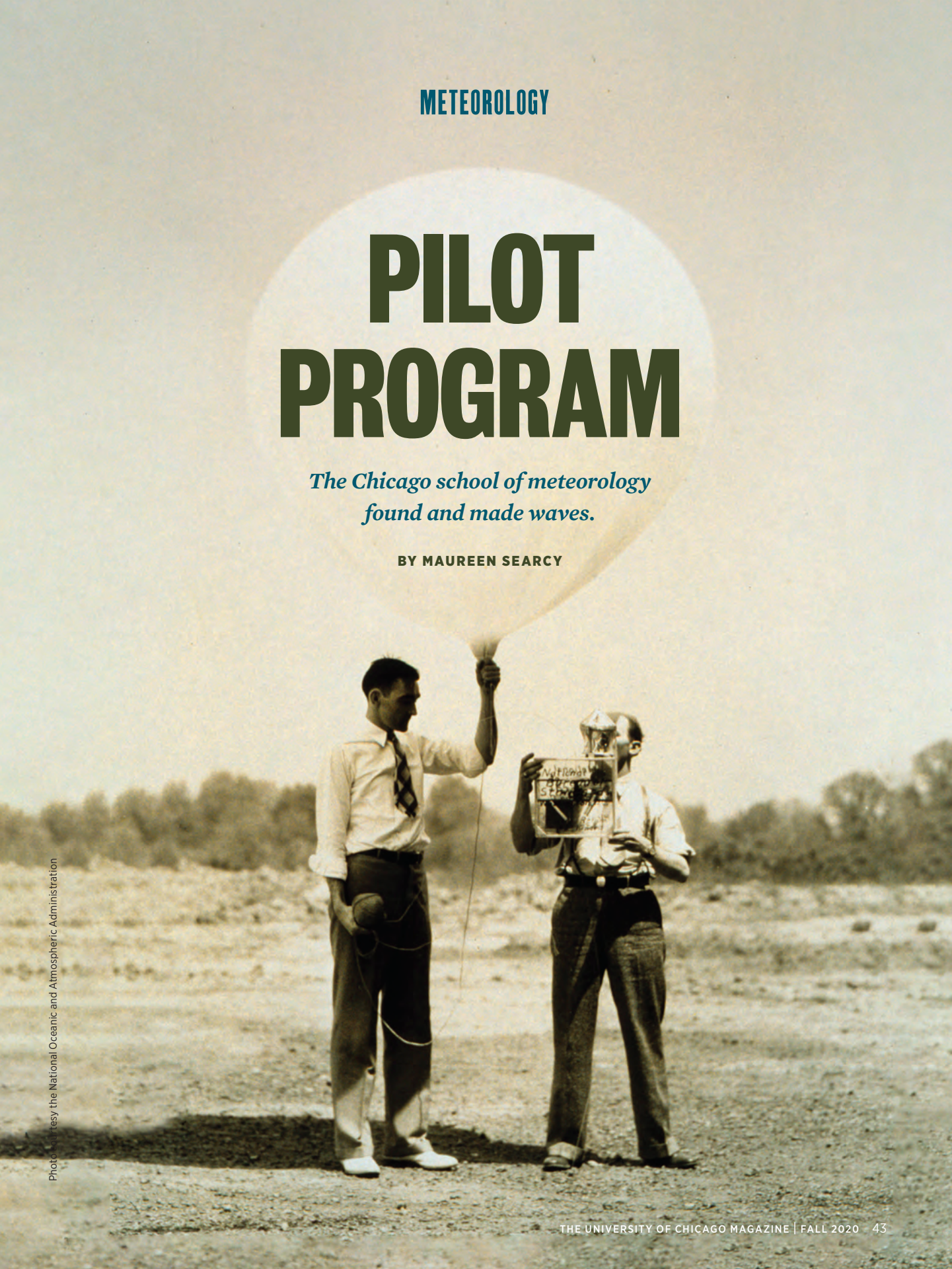


Photo courtesy the National Oceanic and Atmospheric Administration

At the turn of the 20th century, the United States Weather Bureau was approached by two inventors looking for a site with steady winds. Based on the forecasters' suggestions, the Wright brothers completed the first powered airplane flight in 1903 near Kitty Hawk, North Carolina. Their famous flight marked the birth of aviation and the beginning of a fast friendship between flight and meteorology.

The two fields evolved in a symbiotic relationship. Scientists had begun to understand that upper atmosphere activity had a significant impact on surface weather, and aviation offered meteorologists a new perspective. Pilots benefited from weather forecasting for safety and efficiency, and in return, instrument-outfitted aircraft could collect meteorological data not available from the ground.

By 1940 Swedish meteorologist and émigré Carl-Gustaf Rossby was the most prominent proponent in America for investigating the upper atmosphere. Rossby led the conversion of weather research from a descriptive to a predictive science by applying the laws of physics and mathematical modeling. When he became the first head of the University of Chicago Institute of Meteorology, the appointment ushered in two crucial decades when the University helped shape the developing field. The Chicago school of meteorology forged alliances between academia, industry, and military to translate theory into practice; unlocked the mysteries of severe weather; and laid the foundation for future climate change research. UChicago's meteorology program nominally closed its doors more than 50 years ago, but its influence continues to ripple through the geophysical sciences.

Weather forecasting can be traced back to ancient civilizations, which used astronomy to track seasonal changes. But meteorology—a subset of atmospheric science that studies weather and optical phenomena—became an empirical science in the 17th and 18th centuries, with the invention of the thermometer, barometer, and hygrometer (to measure humidity). Quantifiable data could be brought to the astronomical correlations, historical record keeping, and intuition of earlier weather forecasting.

But it took the invention of the telegraph in 1844 to merge meteorology and weather forecasting into a practical endeavor. With this technology came the ability to collect data on a systematic level and to warn people to the east—the direction that weather typically travels—that a storm was coming. The telegraph-weather marriage was proposed during the Crimean War, when a severe storm in 1854 sank French and British ships in the Black Sea. Europe implemented a storm-warning service soon after.

In America similar dots were being connected. In 1849 the Smithsonian Institution established an observation network, supplying telegraph companies with instruments to take measurements for weather maps. In 1870 the government created a national weather service, first as part of the US Army Signal Service and later becoming the civilian US Weather Bureau. For 50 years America's weather service, and those around the world, relied on weather maps to subjectively spot patterns and forecast weather based on educated guesses.

The 1947 Thunderstorm Project used radar—newly declassified technology supplied by the Air Force—to study storm traits and evolution. Page 43: Early launch of a radiosonde—a balloon-borne instrument for taking atmospheric measurements.

Then in 1917 Norwegian physicist Vilhelm Bjerknes established an institute of geophysics in Bergen, Norway. There he and his colleagues brought objectivity to meteorology by infusing the field with thermodynamics and fluid mechanics, the physics of liquids and gases. Soon after the institute was founded, Carl-Gustaf Rossby left his physics program at the University of Stockholm to become a protégé of Bjerknes as the Norwegians developed the polar front theory, the foundation of the Bergen school of meteorology.

With his son Jacob, Bjerknes determined that enormous masses of cold dry air that descend from polar regions are the "leading players" in "weather drama," wrote *Time* in a 1956 profile of Rossby. Their movements create the cold and warm fronts that appear in modern weather maps. Previously, large-scale rotating areas of low atmospheric pressure called cyclones, which could measure a thousand miles wide, were thought to hold top billing as they were known to bring storms. But the Bjerkneses' discovery knocked them down to "bit-players" below the polar fronts. The development "lit up meteorology like a new sun rising and upgraded it into a more exact science."

In 1926 Rossby, who had returned to Stockholm to finish his education in mathematical physics, won a fellowship that placed him in the US Weather Bureau to study the application of the Bergen polar front theory to American weather. During his first year in the United States, he studied turbulence and convection (the fluid-based rising of heat and sinking of cold), consulted with the booming aviation industry, and applied his mentor's theory to US weather maps.

But the Weather Bureau wasn't "a pleasant place for the twenty-seven-year-old Swede," wrote Horace Byers, Rossby's former student, longtime colleague, and biographer. "He encountered unexpected hostility to the polar-front theory and to air-mass analysis," and clashed with the bureau's administration over a series of minor incidents that came to a head when he made an unauthorized weather forecast for Charles Lindbergh's flight from Washington, DC, to Mexico City. Rossby left the Weather Bureau "literally *persona non grata*."

Through his involvement with aviation, Rossby connected with the Department of Aeronautical Engineering at MIT, where he established the first graduate program in meteorology in 1928. Using a research plane provided by the school and a new remote-sensing device carried by helium balloons, Rossby was able to access the upper atmosphere, where he detected the large-scale flow patterns that directly influence weather. These were planetary waves, now called Rossby waves, that naturally occur in rotating fluids. If polar air masses are weather stars, then Rossby waves are the producers.

THE JOKE GOES, A DAIRY FARMER ASKS FOR HELP INCREASING MILK PRODUCTION. A THEORETICAL PHYSICIST REPLIES, "I HAVE A SOLUTION, BUT IT ONLY WORKS FOR SPHERICAL COWS IN A VACUUM."

Rossby's research laid "the fundamental groundwork for our understanding of the midlatitude atmosphere, between the tropics and the poles," says **Tiffany Shaw**, associate professor in geophysical sciences, whose research focuses on the physics of Earth's current and future climate. "What was beautiful about his work was that he was using a very simple model. Starting with the complicated laws of physics, he had to make assumptions and came out with this emergent property of weather waves."

Shaw, a physicist by training, invokes the "spherical cow" metaphor to explain why physicists like Rossby tend to simplify models. The joke goes, a dairy farmer asks for help increasing milk production. A theoretical physicist replies,

Illustration courtesy the National Oceanic and Atmospheric Administration; photography by Jean Lachat

"I have a solution, but it only works for spherical cows in a vacuum."

A classic approach for theoretical physicists is to simplify models for complex systems. If you want to model the motion of a thrown ball as accurately as possible, you must consider the ball's shape, texture, surrounding air density—countless considerations that affect the physics of the trajectory. Not only does that make solving complex problems daunting, it also leads to models that accurately predict the motion of footballs thrown in high humidity, but not baseballs thrown in dry heat. But if you consider only mass, you can predict the motion, imperfectly but well enough, for different scenarios.

This is what Rossby did with his planetary waves; he modeled their motion in two dimensions instead of three, neglecting aspects such as water vapor and vertical motion. His simplified model could then be studied via atmospheric observations or laboratory experiments. Rossby's theoretical tools, including his equations, elevated the Bergen school's conceptual models into mathematical models, adding numerical precision to weather prediction. They also made future atmospheric science discoveries possible.

Soon after Rossby's waves were discovered, he joined the University of Chicago to lead its brand-new institute.

Clare S. Y. Huang, PhD'17 (left), and Noboru Nakamura demonstrate an experiment in the Dave Fultz Memorial Laboratory for Hydrodynamics, showing how temperature contrasts and rotation create the polar jet stream. Background: An 1880 issue of *Frank Leslie's Illustrated Newspaper* shows an arrangement of rooftop meteorological wind instruments.

The Second World War was a driving force in the founding of UChicago's Institute of Meteorology. In early 1939, Rossby, then on the faculty of MIT, wrote to his school's president, Karl T. Compton, to suggest the creation of a meteorology program at UChicago, where Compton's brother was a physicist. Arthur Holly Compton brought the idea to University president Robert Maynard Hutchins and Physical Sciences Division dean Henry Gale, AB 1896, PhD 1899, but the idea was deemed financially infeasible.

Ten months later, Byers, Rossby's mentee from MIT and colleague, independently proposed the same thing. With war having broken out in Europe, investment in meteorological research now had new importance.

Byers's recommendation was endorsed by Gale, an astrophysicist who had served in the Signal Corps during World War I and was familiar with the Norwegian meteorological developments. Arthur Compton also championed the program, calling it an "essential part of the contribution we can make to the national defense." He built his case for support on three points. First, the University was already conducting groundbreaking research in physics, geography, and math. Second, it favored fundamental research, and, third, it was located in a region with distinctive weather and in need of meteorologists for aviation, agriculture, and industry. The pitch was a success, and a donor gave the necessary funds to start the new program: $15,000.

IT WAS AN EXCITING TIME RIFE WITH "UNTESTED THEORIES THAT NEEDED A PROOF OF CONCEPT."

UChicago joined MIT, Caltech, and New York University as the only advanced-degree granting meteorology programs in the country. (UCLA's program, under the leadership of Jacob Bjerknes, formed around the same time.) Rossby was called to lead the institute, with Byers as his right hand.

The Institute of Meteorology opened in 1940 as part of the physics department. Its first class included 15 students from the Weather Bureau and what's now called the Federal Aviation Administration. Rossby had envisioned a theoretical venture, but that year, President Franklin Roosevelt called for the construction of 50,000 military aircraft, requiring 10,000 meteorology-trained officers. Rossby's academic instruction quickly pivoted to military-based cadet training.

While students left Hyde Park to go to war after Pearl Harbor was bombed in late 1941, cadets took their place. "By 1942 all available dormitory space had been consigned to military programs," writes College dean **John W. Boyer**, AM'69, PhD'75, in *The University of Chicago: A History* (University of Chicago Press, 2015). International House was filled with meteorology cadets and Red Cross volunteers, and the Reynolds Club became the institute's headquarters. By the end of World War II, Chicago had trained more than 1,700 meteorologists.

The program's early surge was driven by practical need, but it also created momentum to pair investigation with dissemination. The curriculum, which crammed two years of material into a nine-month course, included common wisdom from old meteorology, but it was grounded in fluid dynamics. "Rossby was very much in the philosophy of training the next generation of meteorologists based on physics," says **Noboru Nakamura**, a professor in geophysical sciences who studies the jet stream—not simply how to read a weather map but how to analyze data (often collected by Air Force pilots) and recognize global patterns.

After the war ended, the institute, by then a full-fledged department, returned to its original focus on fundamental research, forming what would become known as the Chicago school of meteorology, with a heavy emphasis on physics, mathematics, and modeling. It was an exciting time rife with "untested theories that needed a proof of concept," says Nakamura. Data were flying in, ready to be applied to theoretical equations to see if they held up in practice.

Guided by wartime-gathered observations, Rossby's team revisited his planetary waves. After bombing missions in Japan, B-29 pilots reported winds as high as 230 miles per hour at

Sidebar (below): A 1945 photo shows Tuskegee Airmen being briefed. Several Black UChicago meteorology alumni joined the elite corps, including Charles E. Anderson, CER'43, who served in the Tuskeegee Weather Detachment.

cruising altitudes. The winds caused bombs to miss targets and, when positioned as headwinds, burned extra fuel, draining the aircraft. Rossby thought these winds must be associated with his high-altitude waves and developed a mathematical theory to predict their behavior. He named these fast-moving rivers of wind jet streams, and they are now used in both weather forecasting and aviation planning.

Meteorological research can be split into different scales of size. The Norwegians, who approached weather from a comprehensive point of view, prioritized large movements and trends over localized phenomena. Their polar air masses, as well as low-pressure cyclones and hurricanes, are called synoptic scale phenomena. Rossby went bigger; jet streams are part of global scale meteorology, incorporating models of circulation around the planet. But research at UChicago also went smaller, into the meso, or middle, scale. This subfield of meteorology includes thunderstorms and tornadoes, and it blossomed after the war.

A significant contribution to mesometeorology came from the Congress-mandated and funded Thunderstorm Project. A collaboration among the Weather Bureau, the Army Air Force, the Navy, and the National Advisory Committee for Aeronautics (NASA's predecessor), the project studied storm causes and characteristics. Byers was appointed director. The project, which began almost immediately after the war ended, had access to airplanes, weather instruments, and an enormous cadre of trained personnel. It also had radar—previously highly classified technology used to monitor enemy

Photo courtesy the National Oceanic and Atmospheric Administration

A CHANGE OF CLIMATE

First-in-class forecasters

BY MAUREEN SEARCY

Originally an astrophysics major, Joanne Gerould Simpson, SB'43, SM'45, PhD'49, was required to take a meteorology course to obtain her pilot's license as part of the University of Chicago student flying

aircraft—that was capable of tracking thunderstorms and visualizing precipitation structure within the clouds.

The Thunderstorm Project sent pilots through storms in radar-outfitted Black Widow warplanes, flying in a vertical stack at different altitudes to gather data on the storms' traits and evolution. The data collection lasted a little over a year in two phases. Then UChicago scientists analyzed the massive data sets by hand in a two-year effort. The discoveries made during the Thunderstorm Project provided foundational knowledge for severe weather research: for example, the discovery and characterization of a storm's three-stage life cycle.

During the time that Byers was leading a literal squadron of meteorologists into thunderstorms above Florida and Ohio, another man was climbing a mountain in Japan to collect his own data. They both arrived at similar conclusions about the nature of storms. Impressed that one individual with so few resources could achieve so much, Byers invited Tetsuya Theodore Fujita to Chicago, where he soon became director of the Mesometeorology Research Project. (For more on Fujita, see "Singing for the Pine Trees Are Stormy Winds," page 40.)

Fujita went on to conduct his own wide-scale, data-driven investigations into tornadoes. His unconventional approach was long rejected by the meteorological community, says Nakamura, who counts Fujita as one of his heroes. "But our university has traditionally been nurturing to unconventional, creative approaches to science," he says, "and supportive of the scientists doing work that may not have been possible elsewhere."

club. Her interest in the field took off, so she made an appointment with Carl-Gustaf Rossby, who had recently arrived to start up UChicago's Institute of Meteorology. "Ten minutes later, I was in the World War II meteorology program as a teacher-in-training," she told a biographer for NASA, where she landed 38 years later as chief scientist for meteorology, Severe Storms Branch. Six other women joined the program with her.

Simpson went on to teach aviation cadets while earning her master's. Of the 6,000 American military officers trained in meteorology during World War II, about 100 were women. After the war ended, women were expected to return home and "get behind a mop," Simpson said. She wanted to earn a PhD but was told it was inappropriate for women because meteorologists worked at night and flew in airplanes (her pilot's license was seemingly irrelevant).

But she found an adviser, Herbert Riehl, PhD'47, who had recently received his own doctorate, and decided to study clouds. At the time, many believed clouds were the result, not the cause, of weather; Rossby said that because there wasn't much interest, it would be a good subject "for a little girl to study." Despite the resistance and condescension she encountered, Simpson became the first woman to hold a meteorology PhD.

In an oral history for the American Meteorological Society, Charles E. Anderson, CER'43 (Meteorology) cites Simpson as one of his important classmates who went on to professional prominence. Unlike Simpson, Anderson, who wanted to join the Army Air Corps, couldn't become a pilot because of poor eyesight. "I could have gone into engineering," he said, "but my background in math and chemistry seemed to be exactly the kind of background that they were looking for [in] meteorologists, so I applied."

In 1943, 45 Black students had earned PhDs at the University of Chicago, more than any other university at the time, but the Army Air Corps was still segregated. So when Anderson and several other Black meteorology cadets, undergraduates, and graduate students from various programs left the University of Chicago, they became Tuskegee Airmen—"an all-Black training operation to produce fighter pilots and bomber pilots and crews," said Anderson. He served in the Tuskegee Weather Detachment, an elite cadre of trained meteorologists who helped open the field to African Americans.

After Anderson was released from active duty, he attended MIT to pursue a PhD in meteorology. In 1960 he became the first African American to be awarded that degree. ◆

In 1956, a year before he died, Rossby, then living in Stockholm, spoke at a meeting of the newly formed National Academy of Sciences Committee on Meteorology. He advocated for meteorologists to work closely with oceanographers, geographers, and geologists since the atmosphere affects and is affected by both land and sea. He called the atmosphere a "milieu" that influences all of human experience. Over the next few years, the expansion of meteorology into planetary science took hold across the field. In 1961 UChicago's meteorology department merged with geology and became the Department of Geophysical Sciences.

Today the department focuses on Earth's atmosphere, oceans, glaciers, and climate; surface, interior, and evolution; and biosphere. Researchers in the department also look to space, studying exoplanets and cosmochemistry. Severe weather research has ceased.

"The vision of the department from the outset was to approach Earth science from the system point of view," says Nakamura, "not just from individual disciplines but with a holistic view of Earth's environment." That vision was met with some resistance, he thinks, because different styles of inquiry were merged. "Meteorology was considered part of physics at the University of Chicago," just as Rossby had originally inspired, "whereas geology was a completely different enterprise."

Nakamura considers himself a "sort of sole survivor of that time," arriving at UChicago in 1992. His recent research concerns how and why jet streams can get disrupted, and how that can lead to anomalous weather. He compares jet streams to highways that weather systems travel on, but they're not straightaways—they meander. And large-scale features, such as mountains, land-sea transitions, or expansive land masses, change the streams' internal dynamics, like changing the speed limit along a highway. At lower speeds, traffic can jam up. Nakamura uses fluid mechanics to explain why this happens, simplifying as much as possible, the way Rossby did with his waves. In doing so, he's been able to draw mathematical connections to automobile traffi flow.

"I'm more interested in the short term," says Nakamura, from a few days to a few weeks—the timescale for weather variability. Longer term analysis starts moving into climate science, which has a larger representation in the current geophysical sciences department.

THE VISION OF THE DEPARTMENT FROM THE OUTSET WAS TO APPROACH EARTH SCIENCE FROM THE SYSTEM POINT OF VIEW, NOT JUST FROM INDIVIDUAL DISCIPLINES.

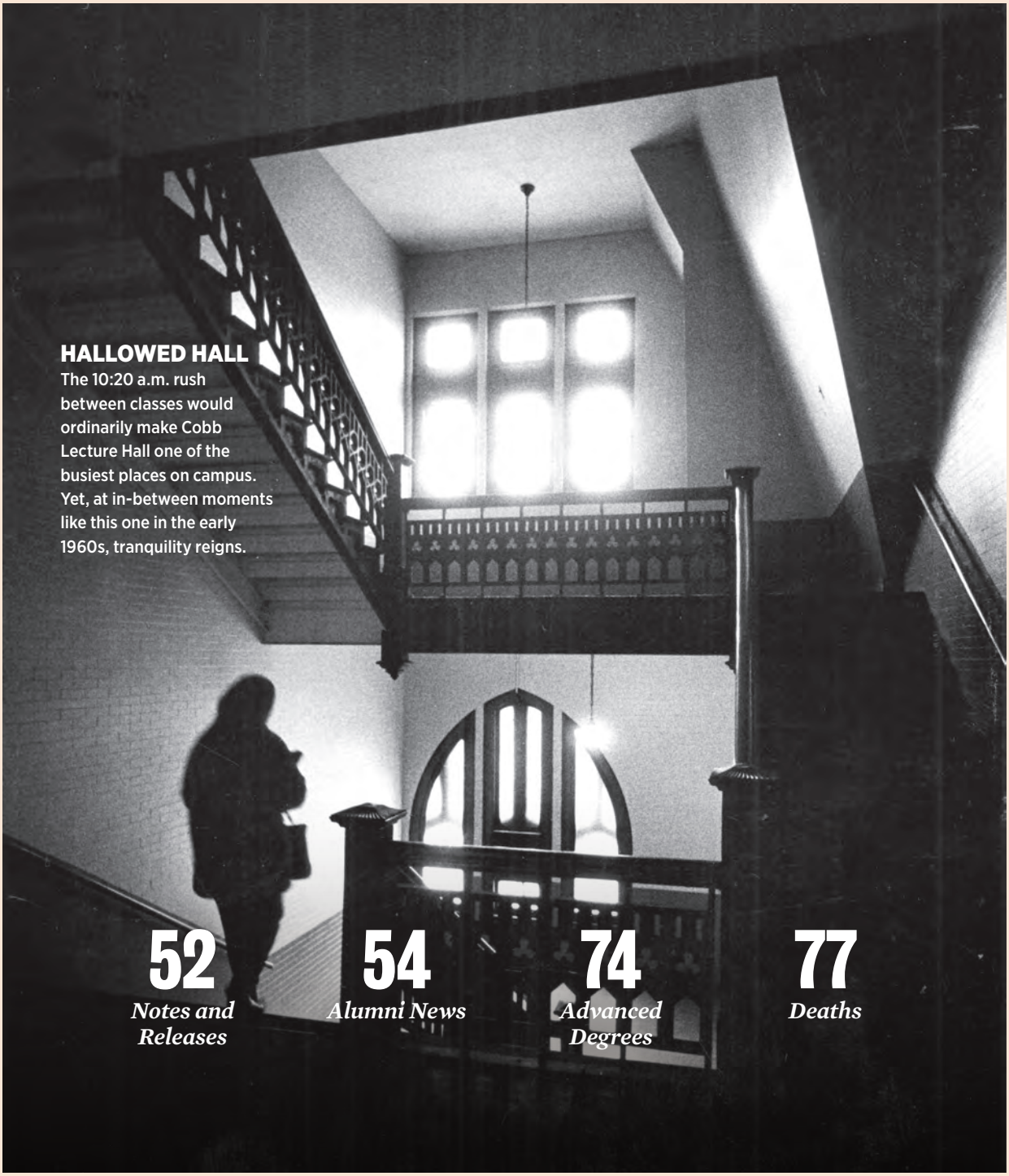
Shaw's climate work involves testing theories about the way the world works using numerical simulations as well as making observations to look for emergent patterns. "My research focuses on large-scale features, whether it's Rossby waves or the jet stream or the Hadley circulation, which dominates how air moves in the tropics," says Shaw. One question she seeks to answer is how such features respond to climate change.

Current models for forecasting future climate are sophisticated, taking into account complex scenarios. But for theoretical physicists, the questions always arise: What are the minimal physical ingredients required to explain emergent patterns in response to climate change? Can climate behavior be understood on a more fundamental level using simpler tools? "We have a big model with all the bells and whistles," says Shaw, "and then we strip away the extra, leaving only the essential, the way Rossby did."

Yet models eventually need to be applied to the real world, assumptions tested. Physicists can do so using atmospheric observations and then calibrating the models accordingly. Shaw fi s into the bigger picture by "pushing the boundaries of the theories developed by Rossby and his colleagues by testing them on different climates," using observations from both past and present. If the theories are sound, they should be able to explain the continuum of a changing climate. "And that's how we build our confidence in future projections of Earth's climate for the next hundred years." ◆

PEER REVIEW

WHAT ALUMNI ARE THINKING AND DOING



HALLOWED HALL
The 10:20 a.m. rush between classes would ordinarily make Cobb Lecture Hall one of the busiest places on campus. Yet, at in-between moments like this one in the early 1960s, tranquility reigns.

Photography by Albert C. Flores, UChicago Photographic Archive, apf2-01819, University of Chicago Library

NOTES

A SELECTION OF ALUMNI WHOSE NAMES ARE IN THE NEWS

PER ASPERA AD ASTRA

Andrea Ghez, LAB'83, received the 2020 Nobel Prize in Physics for discoveries about "one of the most exotic phenomena in the universe, the black hole," announced the Royal Swedish Academy of Sciences in October. She shares the honor with Reinhard Genzel of the Max Planck Institute and Roger Penrose of the University of Oxford. Ghez, the fourth woman to receive a Nobel in physics, spent decades investigating a region in the middle of the Milky Way called Sagittarius A*, which astronomers suspected harbored a supermassive black hole. Ghez and Genzel found strong support for that theory based on the behavior of gas and dust clouds swirling around the galaxy's center.

GOVERNMENT ACTION

The late Abner J. Mikva, JD'51, former Law School faculty member and longtime public servant, is the subject of the documentary *Mikva! Democracy Is a Verb* (Media Process Group, 2020). Following the Chicago progressive from his beginnings as the eponymous "nobody nobody sent" opposing the city's political machine, director Bob Hercules's film highlights Mikva's penchant for principled compromise as an Illinois and US representative and his advocacy for youth civic engagement and such causes as gun control. "He was the original pragmatic progressive," said **David Axelrod**, AB'76, at a Gene Siskel Film Center Q&A for the film.

A NATURAL SELECTION

Evolutionary geneticist **Nels Elde**, PhD'05, was among 21 recipients of a MacArthur Fellowship this year and will receive a five-year grant of $625,000. Elde, an associate professor at the University of Utah, studies what he calls the "evolutionary battle" between infectious microbes and their hosts. In particular, he has explored how viruses' genomes can expand or contract, allowing them to quickly defeat hosts' immune responses. This work, the MacArthur Foundation said, has the potential for wide-ranging impact, including understanding how viruses move from animals to humans and identifying ways to treat emerging infectious diseases. Since 2015 Elde has also cohosted the podcast *This Week in Evolution*.

MASTER CRAFTSMAN

Chicago-based sculptor Richard Hunt, EX'56, is spotlighted in a major solo exhibition at the Art Institute of Chicago. Encompassing work from the 1970s to the present, *Richard Hunt: Scholar's Rock or Stone of Hope or Love of Bronze* takes its subtitle from its centerpiece, a monumental bronze sculpture Hunt began in 2014, inspired by scholar's rocks and the Martin Luther King Jr. memorial in Washington, DC. Celebrated for his abstract works in metal and for his many public artworks, Hunt has said that his sculptures evolve as improvisatory dialogues "between me, the technique, and the material." His exhibition runs until summer 2021.

Hunt sanding a work in preparation for his exhibition at the Art Institute of Chicago. Photo courtesy Richard Hunt, EX'56

ARTS INNOVATOR

Settlement Music School CEO **Helen Eaton**, AM'00, received the 2020 Arts Education Award from Americans for the Arts. Founded in 1908, Settlement provides arts instruction to Philadelphia-area students regardless of financial need, offering $2.6 million in aid each year. Since joining Settlement in 2010, Eaton has "grown programming, diversified funding sources, strengthened the balance sheet, and championed partnerships, both locally and nationally," said Americans for the Arts. Eaton, who studied music history and theory at UChicago, previously served as president of Chicago Children's Choir and dean of programs at the Merit School of Music.

NEW PLAYBOOK

In August **Jason Wright**, MBA'13, was named president of the Washington Football Team. The first Black team president in National Football League history, he's only the fourth former player to ever serve in the role. Before attending Chicago Booth and becoming a partner at McKinsey & Company, Wright spent seven seasons as a player for the Atlanta Falcons, Cleveland Browns, and Arizona Cardinals. He was the Cardinals' union representative in the lead-up to the 2011 NFL lockout. As president of the Washington Football Team, Wright is responsible for the organization's business operations and for turning around what is widely perceived to be a troubled franchise. "I have always enjoyed building exciting new things and taking on the hard, seemingly intractable challenges that others may not want to tackle," he said.

—Susie Allen, AB'09, and Andrew Peart, AM'16, PhD'18

RELEASES

ALUMNI BOOKS, FILMS, AND RECORDINGS

RECASTING THE VOTE: HOW WOMEN OF COLOR TRANSFORMED THE SUFFRAGE MOVEMENT

By Cathleen Cahill, AM'96, PhD'04; University of North Carolina Press, 2020

The path to the 19th Amendment relied on decisive contributions from suffragists of color, argues Penn State historian **Cathleen Cahill**. Her account focuses on six women of diverse ethnic backgrounds, including Native American writer Gertrude Simmons Bonnin, African American activist Carrie Williams Clifford, and Chinese-born minister and economist Mabel Ping-Hua Lee. They drew strength from their fights for causes that intersected with the women's movement, such as labor rights and Indigenous sovereignty. And in the decade after women won the right to vote, Cahill emphasizes, these activists worked toward a future in which that right would apply to all women in the country.

ART HIDING IN NEW YORK: AN ILLUSTRATED GUIDE TO THE CITY'S SECRET MASTERPIECES

Illustrations by Maria Krasinski, AB'01, AM'09; Running Press, 2020

Diego Rivera's 1933 mural *Man at the Crossroads* didn't last long in 30 Rockefeller Plaza once the building's managers objected to his celebratory depiction of Lenin. (Luckily, photographs survive.) The mural is among some 100 lost treasures and hidden gems brought to life by illustrator **Maria Krasinski**'s drawings in this curated tour of Manhattan's urban art landscape. Krasinski and author Lori Zimmer take readers to corporate lobbies, hotel restaurants, and other surprising corners of the aesthetic realm, like the Upper East Side townhouse where Andy Warhol lived with his mother and 25 cats named Sam.

ASCENT TO GLORY: HOW *ONE HUNDRED YEARS OF SOLITUDE* WAS WRITTEN AND BECAME A GLOBAL CLASSIC

By Álvaro Santana-Acuña, AM'06; Columbia University Press, 2020

A best seller when it was published in 1967, *One Hundred Years of Solitude* has become a cornerstone of world literature, translated into 49 languages and read more widely than any Hispanophone literary text but *Don Quixote*. The book that took Gabriel García Márquez 17 years to write met a booming Spanish-language publishing industry and a cosmopolitan Latin American literary network that set the stage for its meteoric success. For fans and literary sociologists alike, Whitman College sociologist **Álvaro Santana-Acuña** tracks how scores of cultural brokers facilitated the work's global circulation.

IN DEEP

Hosted by Jed Kim, AB'02; American Public Media, 2020

"Humanity's struggle to keep water clean has been epic," says public radio reporter **Jed Kim**, and it depends on extensive infrastructure that for most of us remains out of sight and out of mind. In his podcast *In Deep*, Kim and his team of environmental journalists introduce listeners to the largely underground zones where that struggle is waged across the United States today—and to the scientists, politicians, advocates, and others who lead it. Along with this plunge into the world subtending our toilets, the potential national disaster of lead water pipes, and the challenges facing rural America's clean water infrastructure, Kim hosts the *Marketplace* podcast *Million Bazillion*, which answers children's questions about money.

THE ART OF DISSENT

Written and directed by James Dean Le Sueur, AM'90, PhD'96; CzechTV and NUtech Ventures, 2020

The Soviet Union ended the 1968 Prague Spring with an invasion to stop the Czech government's liberal reforms. A year later, after Soviet-backed police repressed dissidents still demonstrating for change, the resistance went underground, led by artists and intellectuals. Twenty years of aesthetico-political activity culminated in the Velvet Revolution and the election of writer and dissident Václav Havel, whom Arthur Miller called "the world's first avant-garde president." University of Nebraska historian **James Dean Le Sueur**'s documentary uses interviews and archival footage to capture the artistic roots and the post-1989 legacy of the Czech freedom movement. The film has been touring—and winning awards—on the international film festival circuit.

DISPOSING OF MODERNITY: THE ARCHAEOLOGY OF GARBAGE AND CONSUMERISM DURING CHICAGO'S 1893 WORLD'S FAIR

By Rebecca Graff, AM'01, PhD'11; University Press of Florida, 2020

In an America of about 63 million people, the World's Columbian Exposition sold more than 27 million tickets to fairgoers in Jackson Park. The buildings are mostly gone, but all those people left behind garbage from new products marketed and sold at the park. The fair was designed for this kind of commerce, and vestiges of the sewage and sanitation infrastructure built to manage its waste remain underground. Lake Forest College urban archaeologist **Rebecca Graff** led digs at Jackson Park and at the Gold Coast's Charnley-Persky House, where household items like those sold at the fair turned up in the remains of the family rubbish pile. Graff analyzes what these links between fairground and home reveal about consumerism and citizenship in 1893.

—Andrew Peart, AM'16, PhD'18

For additional alumni releases, use the link to the *Magazine*'s Goodreads bookshelf at mag.uchicago.edu/alumni-books.

ALUMNI NEWS

FROM THE CLASSES, SCHOOLS, AND DIVISIONS

To protect the privacy of our alumni, we have removed the class notes from this section. If you are an alumnus of the University and would like class notes from our archives, please email uchicago-magazine@uchicago.edu.

Four WAVES and a dude: The 45-foot cruiser *Dude Fisherman* was part of a mobile laboratory operated by UChicago's Institute of Meteorology for research and training. Formed in 1940 as World War II intensified overseas, the meteorology program soon focused on teaching cadets like these WAVES (Women Accepted for Volunteer Emergency Service) how to analyze atmospheric phenomena by boat, plane, and truck. For more on the history of meteorology at UChicago, see "Pilot Program," page 43.

UChicago Photographic Archive, apf3-02886, University of Chicago Library

What's new? We are always eager to receive your news, care of the Alumni News Editor, *The University of Chicago Magazine*. While the *Magazine* staff works remotely during the COVID-19 pandemic, please send news via email: uchicago-magazine@uchicago.edu. No engagements, please. Items may be edited for space. As news is published in the order in which it arrives, it may not appear immediately. We list news from all former undergraduates (including those with UChicago graduate degrees) by the year of their undergraduate affiliation. All former students who received only graduate degrees are listed in the advanced degrees section.

Beneath the paving stones, the litho stones: The deep recesses of Midway Studios, originally the work space of sculptor Lorado Taft and his associates, housed a lithography studio where UChicago's fine arts students created prints. The converted brick barn at 60th and Ingleside underwent renovations and expansions in the years after this early 1960s photograph. Decades later, Midway Studios and its adjacent classroom and office space, Taft House, are home to the visual arts department, the creative writing program, and the Gray Center for Arts and Inquiry. What kind of art did you make or see displayed at Midway Studios when you were on campus? Write to us at uchicago-magazine@uchicago.edu.

Photography by Danny Lyon, AB'63, UChicago Photographic Archive, apf2-05168, University of Chicago Library

In under the wire: In August 1963 Phillip Hyde, LAB'58, AB'63, was among the final patrons of the campus post office at Ellis Hall, where it shared a roof with the University of Chicago Bookstore until the end of that month. A fire in 1969 forced the bookstore itself out of the 58th Street and Ellis Avenue building, which was soon after demolished to allow for the hospital's expansion. What are your memories of the old campus bookstore? Send us a note at uchicago-magazine@uchicago.edu.

Photography by Henry H. Hartmann, UChicago Photographic Archive, apf2-02212, University of Chicago Library

Data crunch: Before construction had even begun, the Regenstein Library was being heralded by the *Maroon* as a "computer-age" research facility. The Reg, now celebrating its 50th anniversary, launched a pilot project the year after it opened to computerize its bibliographic records and technical services. Library staff sorted through more than 300,000 card catalog entries as they prepared to move records of library holdings onto a newly designed data management system. By 1976 that system was online and available to library staff and patrons through a campus-wide cable network. For more about the Reg then and now, see "Reg at 50," page 17.

UChicago Photographic Archive, apf2-06261, University of Chicago Library

The greensward will return: "Bicyclists could again be seen setting forth upon aimless journey, as more people continued to stream into the park," wrote the *Maroon* about an October 1971 festival at Promontory Point celebrating the removal of US Army Nike missile site C-41, built in 1955 as one of several Cold War–era antiaircraft missile bases along the Chicago and northwest Indiana lakeshore (see Letters, page 6). C-41's missiles were docked about a mile south of the Point in an area of Jackson Park now known as Bobolink Meadow. Regaling the crowd at the We've Won Our Point festival were emcee Studs Terkel, PhB'32, JD'34; Abner Mikva, JD'51, then Hyde Park's US congressman; the University of Chicago kazoo band; and the Jimmy's Woodlawn Tap house band.

Towering intellect: A well-appointed post in the quads offers seclusion (and convenient backpack storage) for a studious Maroon in February 1984. Where was your favorite spot on campus to study when you needed a solitary retreat? Write to us at uchicago-magazine@uchicago.edu.

The Aims of Education Address in 1989 was delivered by cancer researcher Samuel Hellman, then dean of the Biological Sciences Division and the Pritzker School of Medicine and now a distinguished service professor emeritus in radiation and cellular oncology. Hellman's address for what has been an O-Week mainstay since 1962 was called "Clinician, Investigator, Educator, Administrator." This fall students weren't able to gather in Rockefeller Chapel to hear their Aims speaker, vice provost Melissa Gilliam; instead, they tuned in for her virtual address, which asked them "to consider education as an act of self-love." The students broke out afterward into Zoom discussion groups with faculty members. What stands out in your memory about the Aims of Education Address you attended as a first- ear? Write to us at uchicago -magazine@uchicago.edu.

DEATHS

FACULTY AND STAFF

R. Stephen Berry, the James Franck Distinguished Service Professor Emeritus in Chemistry, of Chicago, died July 26. He was 89. Berry came to UChicago in 1964 and remained an active presence in the classroom through retirement, coteaching a course on energy and policy last year. Drawn to thermodynamics when he moved to Chicago and observed the city's high levels of air pollution, he pushed the field beyond its classic model, establishing the foundations of finite time thermodynamics and applying what he learned to the pursuit of sustainable energy solutions. He helped initiate life cycle analysis and other energy policy frameworks, coauthoring *TOSCA: The Total Social Cost of Coal and Nuclear Power* (1979). Berry's pioneering fundamental research in physical chemistry included early measurements of electron affinities and dynamic models of atomic and molecular clusters. One of the first chemists to receive a MacArthur Fellowship, he served as the National Academy of Sciences' home secretary and received many national and international honors. He is survived by his wife, Carla; two daughters, **Andi Berry**, LAB'75, and **Denise Berry-Hanna**, LAB'77; a son, **Eric H. Berry**, LAB'82; and eight grandchildren.

Richard P. Taub, the Paul Klapper Professor Emeritus in the Social Sciences, the Department of Comparative Human Development, and the Department of Sociology, died August 19 in Santa Fe, NM. He was 83. A sociologist of urban, rural, and community economic development, Taub taught at UChicago for more than 45 years, founded and chaired the undergraduate public policy major, and held a variety of other administrative roles, including associate dean of the College. Taub authored two books on government and economic development in India that arose from his dissertation research in the country. He expanded into urban sociology in Chicago, studying demographic change, lending discrimination, and the economic fortunes of city neighborhoods. After publishing *Community Capitalism: Banking Strategies and Economic Development* (1988), Taub followed up with a book about Chicago-based ShoreBank's efforts in Arkansas to promote community development through entrepreneurship. His honors include the Quantrell Award for Excellence in Undergraduate Teaching and the Faculty Award for Excellence in Graduate Teaching. He is survived by his wife, Betty G. Farrell; a daughter; a son; and two grandchildren.

Michael Silverstein, the Charles F. Grey Distinguished Service Professor of Anthropology, Linguistics, and Psychology, died July 17 in Chicago. He was 74. An anthropologist who helped define the field of sociolinguistics, Silverstein began teaching at the University in 1970 and trained generations of students in language's relationship to culture and social interaction. His research introduced a theoretical language that crossed disciplines and captured how meaning unfolds from the act of discourse. He conducted fieldwork in the Pacific Northwest on the Chinookan language and in Australia on several Aboriginal languages; edited the selected writings of William Dwight Whitney, a 19th-century precursor of modern linguistic theory; and wrote about communication and political culture in such works as the coauthored *Creatures of Politics: Media, Message, and the American Presidency* (2012). A founder and former president of the Society for Linguistic Anthropology, Silverstein received MacArthur and Guggenheim Fellowships, UChicago's Faculty Award for Excellence in Graduate Teaching, and the Franz Boas Award for Exemplary Service to Anthropology, the American Anthropological Association's highest honor. He is survived by his wife, **Mara A. Tapp**, AM'77, and two children.

Joseph M. Baron, SB'58, SM'62, MD'62, associate professor emeritus at UChicago Medicine, died September 20 in Boston. He was 82. An expert in lymphoproliferative disorders, Baron spent two years as a research associate at the National Institutes of Health before returning to UChicago in 1966. After serving for a year as chief resident, he joined the Department of Medicine faculty in the hematology/oncology section, where he would go on to become acting chief. Among other leadership positions, he served as medical director of the Clinical Coagulation/Bone Marrow Laboratory. In his clinical practice, he specialized in cutaneous lymphomas, bleeding and clotting disorders, and classic hematological disease. He directed the first clinical trial of human erythropoietin. Baron received the Department of Medicine's first Outstanding Clinical Service Award and many other honors. He is survived by his wife, Beverly; three daughters, including **Elinor L. Baron**, MD'02; a sister; and four grandchildren.

Daniel W. Tepke, MBA'82, former coach, athletics administrator, and Chicago Booth associate dean, of Chicago, died December 29. He was 72. Tepke began his UChicago career in the athletics and recreation department, where he coached football, soccer, and baseball and served as intramural director and head of facilities before becoming an associate professor and assistant chair. With his MBA, Tepke moved into administration at Chicago Booth, where he was associate dean for management and budget. He also lectured in marketing and codirected the New Product Laboratory. After he left Booth, Tepke joined the leadership team of an Indianapolis insurance company and later became senior vice president of North Park University. He is survived by his wife, Candi; two daughters; a sister; and five grandchildren.

Abel P. Jeuland, the Charles H. Kellstadt Professor Emeritus of Marketing at Chicago Booth, died August 19 in Chicago. He was 71. Jeuland earned degrees in business marketing and engineering (with a specialty in advanced mathematics) in his native France before immigrating to the United States and earning his doctorate in industrial relations. Joining Chicago Booth's marketing faculty in 1975, he did research on the creation and use of analytical tools to approach such marketing issues as forecasting, competition, and product design and diffusion. He also worked on the mathematical modeling of brand choice, promotions, and distribution channels. On the advisory board of *Marketing Science*, he wrote and reviewed regularly for scholarly journals in marketing, operations, and management. Jeuland was a founding member of EFAC, the French-American School of Chicago, and served on their board as president and treasurer. He is survived by his wife, Maretta; a daughter, **Citrini Nata Devi**, LAB'95 (née Christine Laura Jeuland); two sons, including **Eric Jeuland**, AB'03; and five grandchildren.

Robert Bird, associate professor of Slavic languages and literatures and cinema and media studies, died of colon cancer September 7 in Chicago. He was 50. Bird taught at Dickinson College before joining the UChicago faculty in 2001. In addition to chairing both departments in which he held appointments at the University, he led the Fundamentals program in the College. He was an authority on Russian filmmaker Andrei Tarkovsky and also published studies of Fyodor Dostoyevsky and poet and philosopher Vyacheslav Ivanov. In recent years he took on curatorial collaborations and focused increasingly on aesthetics and politics. Bird cocurated the 2017–18 Smart Museum exhibition *Revolution Every Day*, on the centenary of the Russian Revolution, and cocreated a project on American singer Paul Robeson and Blackness in the Soviet Union. His book on Soviet film and socialism will be published posthumously. He is survived by his wife, Christina Kiaer; a stepdaughter; his parents; a sister; and a brother.

1940s

Robert M. Raymer, MBA'43, of Palo Alto, CA, died March 23. He was 98. A World War II US Army Air Forces veteran, Raymer worked for more than 65 years as an attorney for the San Francisco law firm Cooper, White & Cooper, where he represented the *San Francisco Chronicle* and other media outlets, as well as public utilities and airlines. A philanthropist and patron of the arts, Raymer established a professorship in cardiovascular medicine at Stanford University and funded college scholarships through the Jewish Community Federation. He is survived by his wife, Shirley.

Nancy E. Warner, SB'44, MD'49, of Pasadena, CA, died August 17. She was 97. After completing her residency in pathology at UChicago and serving as the University's chief surgical pathologist, Warner was recruited to the University of Southern California's medical school, where in 1972 she was named chair of pathology. The first female medical department chair at USC, she was also the first woman in the United States to chair a pathology department at a coeducational institution. Warner wrote the textbook *Basic Endocrine Pathology* (1971) and specialized in the diagnosis of thyroid disease. She retired as USC's Hastings Professor of Pathology in 1993 and continued on the board of the Medical Faculty Women's Association, an organization she helped create. She and her late wife, Christine Reynolds, established funds at UChicago to support women scholars across the disciplines.

Guido Münch, PhD'46, died April 29 in Pasadena, CA. He was 98. A theoretical and observational astrophysicist, Münch began his influential research on stellar atmospheres while working with Subrahmanyan Chandrasekhar at Yerkes Observatory, first as a doctoral student and then as an assistant professor. He also made important contributions to the understanding of galactic structure, solar physics, and the planetary system. In 1951 he left UChicago to join the faculty at Caltech, working at its affiliated observatories, and in 1977 became director of the Max Planck Institute for Astronomy. Münch's study of Mars's atmosphere aided NASA's early exploration of the planet; he also did infrared radiometry research for their Mariner, Pioneer 10 and 11, and Viking programs. He is survived by a daughter and three sons.

Urchie B. Ellis, AB'47, JD'49, of Richmond, VA, died February 13. He was 97. Ellis served in the US Army for three years during World War II before returning to finish his degree in the College. He spent his career in the legal departments of several railroad companies, including those that operated the Atlantic Coast Line, the Illinois Central, and the Richmond, Fredericksburg & Potomac (RFP). His work encompassed a variety of corporate and legislative matters, and he retired from RFP as a vice president in 1986. He is survived by a daughter, two sons, six grandchildren, and six great-grandchildren.

Alice Koller, EX'48, died July 21 in Trenton, NJ. She was 94. After studying as an undergraduate at the University, Koller completed her bachelor's degree in Akron, OH, her hometown, and then earned a PhD in philosophy at Harvard in 1960. Turning her philosophical training inward, she published two critically acclaimed books about the solitary and contemplative life, *An Unknown Woman: A Journey to Self-Discovery* (1981) and *The Stations of Solitude* (1990). Unable to secure a permanent faculty position, Koller taught for brief stints at several academic institutions, including Wellesley College, and found work in speechwriting, publishing, and government consulting.

Ira J. Stone, MBA'48, of Deerfield, IL, died January 28. He was 95. A World War II US Army veteran, Stone joined his family's South Side men's clothing business, Ratsky & Stone, and went on to run the company for three decades. After selling the business, he worked in sales at Jos. A. Bank Clothiers in the Loop, frequently earning recognition as the store's person of the month. Stone was active in the Jewish War Veterans of the United States of America. His wife, Marjorie (Leventhal) Stone, PhB'45, MBA'48, died in 1999. He is survived by a daughter, **Ronna A. Stone**, MBA'84; two sons; and seven grandchildren.

1950s

John C. Ballin, PhB'50, SM'53, PhD'55, of Hinsdale, IL, died December 11. He was 95. For his service in the US Army during World War II, Ballin received two Purple Hearts, a Silver Star, a Bronze Star, and a Presidential Unit Citation. The sole survivor of his platoon after they landed on Omaha Beach one week after D-Day, he was reassigned to Scotland before being discharged in 1945. During his UChicago training as a pharmacologist, Ballin joined the American Medical Association and, among other roles, served as director of scientific activities and director of the drugs and technology division, retiring in 1986. He is survived by three daughters and eight grandchildren.

Carl A. Groesbeck, MBA'55, died March 31 in Wheaton, IL. He was 101. A US Army Air Forces pilot who earned both his bombardier and celestial navigator wings during World War II, Groesbeck spent 16 months as a prisoner of war in Stalag Luft III and, after a 390-mile forced march to Moosburg, Germany, was liberated by US troops in 1945. Returning stateside, he received his bachelor's degree in mechanical engineering and with his MBA worked for People's Gas in Chicago. He is survived by two daughters; three sons; and 10 grandchildren, including **Christine B. Groesbeck**, MBA'18.

Susan Daskais Kaplan, AB'56, AB'57, AM'63, died January 16 in Berkeley, CA. She was 81. A Hyde Park native, Kaplan earned her master's in psychology and moved to California a decade later with her husband, James M. Kaplan, AM'54. She worked as a school psychologist and was also an avid cyclist, hiker, and cross-country skier. Her husband died in 2007. She is survived by a daughter; a son; a brother, **Richard M. Daskais**, PhB'47, SB'48; a grandchild; and two great-grandchildren.

Roland A. Finston, AB'57, SB'57, of Palo Alto, CA, died June 3. He was 83. With a master's in health physics and a doctorate in biophysics, Finston was an associate professor for a year at Oregon State University, teaching radiological physics, before he joined Stanford University in 1966. A member of the environmental health and safety department, he served as director of health physics and lectured in radiology at the medical school. His work involved the measurement of radiation dosages in medical treatments, and he was frequently consulted as an expert on environmental radiation exposure. He is survived by his wife, Gloria; two sons; a brother; and two grandchildren.

Ernest L. Schusky, AM'57, PhD'60, died December 12 in Edwardsville, IL. He was 88. An anthropologist who studied Native American history and culture, particularly among the Sioux, Schusky joined Southern Illinois University Edwardsville in 1960, three years after its founding, and developed the school's anthropology program. His 1965 report *The Right to Be Indian* addressed Native American civil rights issues. Other works, such as *Manual for Kinship Analysis* (1965) and *Introducing Culture* (1967), were widely adopted as classroom texts. In retirement Schusky published fiction based on his research. He is survived by his wife, Mary Sue; two sons, including **Read Schusky**, AB'81; and two grandchildren.

Stephen L. Michel, SB'58, MD'62, of Boca Raton, FL, died December 25. He was 81. A Chicago native and a third-generation UChicago alumnus, Michel spent most of his career as a general surgeon at Cedars-Sinai Medical Center in Los Angeles, where he served as associate director of surgery, director of trauma surgery service, and medical director of the same-day outpatient surgery center. He was also an associate clinical professor at the UCLA School of Medicine, a fellow of the American College of Surgeons, and chair of the County of Los Angeles Emergency Medical Services Commission. He is survived by his wife, Barbara; a daughter; a son, **Gregg L. Michel**, AB'88; and four grandchildren.

1960s

Steven A. Kailes, AB'60, of Wilmette, IL, died January 2, 2018. He was 81. A Vietnam War veteran, Kailes taught at Jacob Beidler Elementary School on Chicago's West Side for three decades. He later worked as a real estate agent in the Chicago area. As a longtime board member of the Retired Teachers Association of Chicago, he served in many roles, including president. He is survived by a sister.

Chandra Kant Jha, MBA'62, died January 21 in Chicago. He was 93. Trained as a civil engineer, Jha worked for an American firm in his native India before immigrating to Chicago and shifting his focus to structural engineering projects. With his MBA, he became a prominent real estate developer in the city. As a vice president at Tishman Realty & Construction, he played a key role in the construction of the John Hancock Center. Later heading his own firm, PSM International, he developed Streeterville's Onterie Center. He is survived by his wife, **Hekmat Elkhanialy Jha**, AM'64, PhD'68; a daughter, **Lakshmi Elkhanialy Jha**, AB'95; a son; two grandchildren; and a great-grandchild.

Yakov Eckstein, PhD'62, of Evanston, IL, died February 12. He was 88. A member of the Palmach in his youth, Eckstein fought for Israel's independence in 1948 and went on to study at the Hebrew University of Jerusalem. With his UChicago doctorate, he became

a professor of physics at the Technion–Israel Institute of Technology, serving as his department's dean and the school's vice president. He also taught as a visiting professor at Northwestern University. He is survived by his wife, Ruth; three children; a sister; and seven grandchildren.

Rose Ann Gordon Cope, AB'63, died June 4 in Lincolnwood, IL. She was 78. Cope worked at Chicago's Mount Sinai Hospital and Medical Center as director of volunteer services. She is survived by her husband, **Ronald S. Cope**, AB'61, JD'63; two daughters; a son, **Jonathan I. Cope**, JD'94; seven grandchildren; and five great-grandchildren.

Lucy Reals Day, AB'65, died June 5 in Palm Beach, FL. She was 76. With a master's in anthropology, Day worked for museums and at archaeological sites before launching a career in finance. In retirement she chaired the boards of three nonprofits, helped found the Breast Cancer Alliance, and was a judge for the Garden Club of America. She is survived by her husband, Nathaniel, and two daughters.

Ilene Barmash Harris, AB'65, MAT'72, PhD'79, died January 19 in Chicago. She was 75. Harris began her career in medical education at the University of Minnesota Medical School, ultimately directing the office of educational development and research. She later joined the University of Illinois College of Medicine and went on to lead its medical education department, overseeing the pedagogical training of teachers in the health professions until 2019. She is survived by her husband, Morton, and a sister.

Judith Olson Sterling, AB'66 (Class of 1965), MAT'68, of Woodlawn, MD, died August 23. She was 77. After teaching German at the University of Chicago Laboratory Schools, Sterling earned a second master's degree in library science and joined the University of Maryland, Baltimore County, library staff, retiring as assistant director for systems and technical services. In retirement she volunteered with resettlement services for refugees. Her husband, Carleton W. Sterling, AM'68, PhD'70, died in 2018.

Michael P. Biber, MD'67, of Quincy, MA, died January 27. He was 78. A pioneering sleep physician and researcher, Biber cofounded and codirected the sleep center at Beth Israel Hospital in Boston, where he remained a staff neurologist after the institution's merger with New England Deaconess Hospital. Also cofounder of the sleep diagnostic services provider NeuroCare, he served as the company's copresident and medical director. He is survived by two daughters; two sisters, including **June Biber Freeman**, PhB'47, SB'49, EX'53; and a grandchild.

Anthony F. Starace, SM'67, PhD'71, died September 5, 2019, in Lincoln, NE. He was 74. Following a postdoctoral appointment at Imperial College, London, Starace joined the University of Nebraska–Lincoln's physics and astronomy department. Chair of the department for more than a decade, he conducted research in the areas of atomic photoionization and attosecond science. A recipient of the University of Nebraska's Outstanding Research and Creativity Award, he was working until the day of his death. He is survived by his wife, **Katherine Fritz Starace**, AM'68; a daughter; a son; a sister; a brother; and two grandchildren.

1970s

Sally R. Banes, AB'72, died of complications from ovarian cancer June 14 in Philadelphia. She was 69. A dance historian and critic, Banes cofounded Chicago's MoMing Dance and Arts Center in 1974 and wrote reviews for the *Chicago Reader* before moving to New York City and earning her doctorate in drama. Writing for the *Village Voice*, she was among the first critics to cover hip-hop dance, and, with the book *Terpsichore in Sneakers: Post-Modern Dance* (1980), she produced an authoritative history of the subject. Banes taught at numerous schools, including the University of Wisconsin–Madison, where she ran the dance program and later the Center for Humanities. She is survived by her husband, Noël Carroll, and two sisters.

William W. LaMar, AB'74, SM'76, of Portland, OR, died May 28. He was 68. With two UChicago degrees in physics, LaMar continued his research in fluid dynamics throughout his life. A systems analyst by profession, he worked in corporate IT from its earliest stages, both in programming and in hardware administration, primarily for companies in the Chicago and St. Louis areas. After retiring, he moved to Portland to be near his children. He is survived by his partner, Margaret Young; a daughter; a son; and three sisters, including **Nora Ishibashi**, PhD'94.

1980s

Jeffrey W. Walser, AB'80, MBA'82, died April 13 in Dubuque, IA. He was 61. Raised on a dairy farm near Dubuque, Walser studied economics at UChicago and followed his MBA with a master's in agricultural economics. He analyzed livestock markets for Wharton Econometric Forecasting Associates and later joined the Federal Deposit Insurance Corporation, where he finished his career as a regional economist based in Kansas City, MO. He is survived by his parents, a sister, and a brother.

Richard V. Sarkissian, AB'81, MBA'83, of Mahwah, NJ, died April 5 of COVID-19. He was 61. Sarkissian spent his career in the consulting practice at Deloitte, most recently as senior principal in the finance and enterprise performance group. He advised clients internationally in all aspects of finance and in human resources and information technology. He is survived by his wife, Constance; a daughter; a son; his mother; a sister; and two brothers.

Qing Qian (Ching Jean Tsien), PhD'84, died May 17 in Chicago. She was 87. Born in Nanjing, China, Qian earned a PhD in English in 1958 at Beijing Foreign Studies University, where she stayed on as a faculty member. After earning a second doctorate in English at UChicago in just three years, she returned to her teaching post in China and was pivotal to introducing modern English and American literature to the country after the Cultural Revolution. Vice president of the Chinese National Association of American Literature and an editorial board member of the journal *Foreign Literature*, she edited several influential anthologies of English and American literature. She is survived by two daughters, **Xiaoqing Diana Chen Lin**, AM'86, PhD'93, and **Xiaohong Denise Chen**, AB'91, AM'93; and three grandchildren, including **Lisa L. Lin**, Class of 2021.

Joel A. Thvedt, AB'84, died of multiple system atrophy February 8 in Altadena, CA. He was 57. With a law degree from the University of California, Los Angeles, Thvedt became an assistant US attorney in LA and prosecuted federal crimes involving investment, bank, and insurance fraud. He later returned to private practice, handling civil litigation and criminal defense and serving on a federal indigent defense panel. Thvedt spent the last 12 years of his career as a partner in a Pasadena law firm. He is survived by his wife, Patricia; three sons; his parents; and six siblings, including **James E. Thvedt**, AB'78.

Leslie Eugene Brown, AB'85 (Class of 1983), died unexpectedly July 22 in Santa Monica, CA. He was 58. Brown studied English at UChicago and then moved to Los Angeles to join the Ogilvy & Mather advertising agency, where he advanced within account management. Wishing to pursue creative work and his interest in photography, he transitioned into television commercial production, working for 20 years as an art director. Later employed in human resources for the City of Santa Monica, he continued to pursue his passions, including the study of ancient Greek. He is survived by his mother, his stepfather, and two brothers.

Wendy L. Havran, PhD'86, died January 20 in La Jolla, CA. She was 64. A pioneering immunologist, Havran ran a lab at the Scripps Research Institute where she identified distinctive properties of gamma-delta T cells in mouse and human skin that contribute to wound healing. At Scripps she served as associate dean of the Skaggs Graduate School of Chemical and Biological Sciences. She also held an adjunct position in the dermatology department of the University of California, San Diego. Havran's honors include the American Association of Immunologists' Distinguished Service Award. She is survived by her father and two sisters.

2010s

Jee Hee (Frances) Lee, AB'15, died April 17 in Chicago. She was 28. Born in Seoul, South Korea, Lee earned her bachelor's in chemistry and continued as a laboratory research specialist at UChicago for more than three years. Dedicated to helping abandoned and abused animals as a caregiver at PAWS Chicago, she also worked as a translator for general and medical documents. She is survived by her husband, **UnJin Lee**, AB'13; her parents; and a sister.

THE UCHICAGOAN

David Axelrod

AB'76

Questions for the political strategist, College alumnus, and Institute of Politics director.

What do you hate that everyone else loves?

Complaining about politics.

What do you love that everyone else hates?

Politics.

What was the last book you finished?

The Splendid and the Vile by Erik Larson.

What was the last book you put down before you finished it?

War and ...

What UChicago course book left the biggest impression on you?

Suicide by Émile Durkheim; *We Don't Want Nobody Nobody Sent* by Milton Rakove [AM'49, PhD'56].

Tell us the best piece of advice you've received—or the worst.

Former senator Gary Hart once told me, "Don't forget that Washington is always the last to get the news."

What's your most vivid UChicago memory in two sentences or less?

President Edward Levi's [LAB'28, PhB'32, JD'35] welcoming speech, in which he said, "Forty percent of you won't be here four years from now." I was pretty sure he was looking directly at me!

TO READ THE FULL Q&A, VISIT MAG.UCHICAGO.EDU/UCHICAGOAN.

Illustration by Zach Meyer

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