



EVENING MASTER'S PROGRAM

Earn your MA in public policy from UChicago in four quarters.

- ✓ Fall, Winter, and Spring starts.
- GRE not required.

Learn more online:

harris.uchicago.edu/eveningprogram

Harris Public Policy

VOLUME 112, NUMBER 3, SPRING 2020

EDITOR Laura Demanski, AM'94
SENIOR EDITOR Mary Ruth Yoe
ASSOCIATE EDITOR Susie Allen, AB'09
MANAGING EDITOR Rhonda L. Smith
ART DIRECTOR Guido Mendez
ALUMNI NEWS EDITOR Andrew Peart, AM'16, PHD'18
GRAPHIC DESIGNERS Laura Lorenz; Chloe Reibold
CONTRIBUTING EDITORS Jeanie Chung;
John Easton, AM'77; Carrie Golus, AB'91, AM'93;

Lucas McGranahan: Brooke E. O'Neill, AM'04

Editorial Office The University of Chicago Magazine, 5235 South Harper Court, Chicago, IL 60615
TELEPHONE 773.702.2163
EMAIL uchicago-magazine@uchicago.edu
The University of Chicago Alumni Association has its offices at 5235 South Harper Court, Chicago, IL 60615
TELEPHONE 773.702.2150
ADDRESS CHANGES 800.955.0065 or alumni-support@uchicago.edu
WEB mag.uchicago.edu

The University of Chicago Magazine

(ISSN-0041-9508) is published quarterly (Fall, Winter, Spring, Summer) by the University of Chicago in cooperation with the Alumni Association, 5235 South Harper Court, Chicago, IL 60615, and sent to all University of Chicago alumni. Published continuously since 1907. Periodicals postage paid at Chicago and additional mailing offices. POSTMASTER Send address changes to *The University of Chicago Magazine*, Alumni Records, 5235 South Harper Court, Chicago, IL 60615. © 2020 University of Chicago

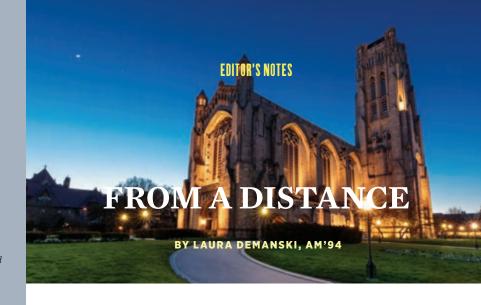
Advertising Contact uchicago-magazine @uchicago.edu or visit mag.uchicago.edu/advertising. The Magazine is a member of the Ivy League Magazine Network, whose clients include other colleges and universities. These advertisements help the Magazine continue to deliver news of the University of Chicago and its alumni to readers. Please contact the editor with any questions.

IVY LEAGUE MAGAZINE NETWORK
Heather Wedlake, Director of Operations
TELEPHONE 617.319.0995 WEB ivymags.com
EMAIL heatherwedlake@ivymags.com

The University does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, status as an individual with a disability, protected veteran status, genetic information, or other protected classes under the law. For additional information, please see equalopportunity uchicago.edu.

Photography by John Zich





rom the kitchen in my home, which now doubles as my office and my everywhere else, I can look west at the peaks of the south end of campus—Rockefeller Chapel's bell tower rising above the rooftops, the light towers illuminating the bridges that cross the Midway by night, the blocky silo of the Logan Center beyond. It's a lovely vista, especially when the sun is setting. But I'm sure I've never stared at it like I have this spring—not for as long, nor the same way.

The sight is freighted with melancholy now, with everything emptied out while the life of the campus is on pause. But there's reassurance in the view as well. As a colleague put it to me after he'd visited the quads one evening before the stay-at-home order, even with campus at its quietest, the lights of UChicago are being kept on for us.

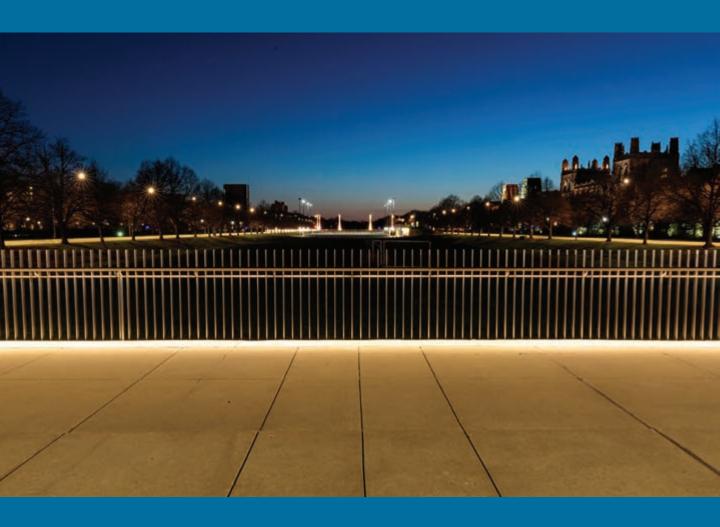
A few words about this issue, which we finished in early May from several locations around Chicago, with understanding of COVID-19 changing daily. It reaches you right around the time that, under normal circumstances, we'd see many of you on the quads for Alumni Weekend. That event is now being planned as a virtual one, Alumni Weekend at Home. Until you and your classmates can come together in person again, I hope you'll look to the *Magazine* to stay in touch. Let your fellow Maroons know how you are by writing to your class correspondent or to us directly at uchicago-magazine@uchicago.edu. At the moment we're getting our snail mail irregularly, so email is the best bet for reaching us with your news or letter to the editor.

In the meantime we'll plan future issues to bring you the usual stories about faculty, alumni, and more, alongside news of how the University community is responding to the pandemic. In the COVID-19 section in this issue, "Together in Spirit" (page 26), we offer a bird's-eye view of some aspects of that response: the most critical institutional decisions; how the University is helping its neighbors on the South Side; what's happening at UChicago Medicine; how faculty and students are adapting to remote education; and a glance at some of the earliest ideas and research of faculty who have shifted their thinking to the pandemic and its consequences. In the Summer/20 issue and beyond we'll cover many of these subjects in greater depth.

Every one of us at the *Magazine* wishes every one of you safety and good health in the months before we next show up in your mailbox. •

SPRING 2020

mag.uchicago.edu



Hyde Park on hold

Spring Quarter was a quieter one on much of campus as the community took protective measures against the COVID-19 outbreak. For more on the University's response to the pandemic, see "Together in Spirit," page 26. On the cover: In his first official University address, President William Rainey Harper called for an intellectual community united in spirit. We take heart in the values that hold UChicagoans together not only across differences of opinion but across physical distances too. Illustration by Elvis Swift.

Features

- 22
- **Crash course** By Sean Carr, AB'90

College students examine ideas and stories of the 2008 Great Recession.

- 24
- A coach's coach By Jeanie Chung

Soccer player **Len Oliver**, PhD'70, put his own spin on teaching the sport and training its leaders.

- 26
- **Together in spirit** By Magazine staff

How the University is responding to the COVID-19 pandemic.

- **28** Ready, set, go **30** Learning curve **32** Quick thinking
- **35** Beautiful somethings **34** Gallery view **36** Into the woods
- **37** *A community together*
- 38
- **Image of health** By Maureen Searcy

Professor and entrepreneur **Maryellen Giger**, PhD'85, brings computeraided breast cancer detection and diagnosis from bench to bedside.

46

Between the lines By Laura Demanski, AM'94

Brent Staples, AM'76, PhD'82, goes behind the work that earned him one of journalism's highest honors. Plus: One of Staples's Pulitzer-winning columns, "The Legacy of Monticello's Black First Family."



<u>11</u>

UChicago Journal

Research and news in brief



51

Peer Review

What alumni are thinking and doing

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.



Deeper into movies

The Winter/20 issue's focus on cinema was more than welcome-and made me realize anew how my Hyde Park years (1973-78) were shaped by the movies I saw there.

First, thanks are in order to Doc Films, the pioneering student organization that brought the world's cinema treasures to campus. As winter arrived, the wind whipped and the Chicago campus turned shades of gray, the coziest and most exciting place to be on a Friday or Saturday night was Cobb Hall's Quantrell Auditorium. Straw Dogs, The Story of Adèle H., Out of the Past, A Clockwork Orange, Blow-Up ... I remember each of them vividly. Doc had a knack for programming classics with recent commercial films (before indie cinema and at a time when Hollywood was at its artistic high point). And while Doc showed only 16 mm films, many were in wide-screen—an impressive

technical feat. After the movie, we'd trek to Jimmy's and chew over what we'd seen, washed down by pitchers of beer and that trademark Jimmy's popcorn designed to make vou drink even more beer.

> One Quantrell moment stands out: after a feature (can't remember which), Doc showed a short film, obviously homemade, of cars barreling down Hyde Park streets, accompanied by the screeching violin crescendo from Psycho. No further information. I wonder if anyone else remembers that.

> > In 1978 I was in the audience when Frank Capra appeared at the

Law School for a screening of It's a Wonderful Life. I was surprised to learn from him that this classic was initially a box-office dud.

In the spring of 1973, the big windup to the very limited social calendar at Lower Flint in Woodward Court was a dormsponsored trip to the big fancy McClurg Court Cinema in the North Loop to see Last Tango in Paris. This was a road show 70 mm screening, with reservedseat tickets purchased in advance. Hard to imagine any of this happening now.

The U of C bookstore was also an important resource for cineastes. I bought my first Pauline Kael review collection, Kiss Kiss Bang Bang (Little, Brown, 1968), in its well-stocked film section. The bookstore also had a small camera shop, where I bought a Kodak Super-8 Ektasound movie camera. I was soon filming classmates in the Woodward courtvard.

My obsession with film has continued my whole life, but it was fueled during those formative years.

Oh, and my favorite film? 2001: A Space Odyssey. And yes, I saw it at Quantrell.

> Ted Dupont, AB'77 MONTCLAIR, NEW JERSEY

The Winter/20 issue was one of the most varied and enjoyable in some time. I particularly liked "Poster Perfect," on Dwight M. Cleveland's (MBA'87) collection of film posters. Introducing the collection, Andrew Peart, AM'16, PhD'18, writes about a rare poster for the silent picture Men of Steel, starring Milton Sills, AB 1903, EX 1904, and Doris Kenyon, actress daughter of a Methodist minister. It surprises me that the Magazine did not pick up on Sills's close relationship with the University of Chicago.

A local boy from a wealthy background, he attended and graduated from the U of C in the late 1890s/ early 1900s and even taught philosophy at the school for a while. Visiting the University as a lecturer, actor Donald Robertson convinced Sills to give up teaching and join his theater company. Success on the stage, including Broadway, spawned a still more successful film career. According to Jeanine Basinger in Silent Stars (Knopf, 1999), Sills was "the strong silent type" and ranked with the likes of John Barrymore and Thomas Meighan as "a major star." Sills wrote the screenplay for Men of Steel as well as starring in it.

The year the picture debuted, Sills divorced English actress Gladys Edith Wynne and married Men of Steel costar Kenyon. Their son was born soon after. In 1930 Sills, then 48, died suddenly of a heart attack playing tennis with Kenyon at their Los Angeles home. A true Hollywood tale to be sure: plus ça change, plus c'est la même chose!

> Jamie S. Scott, PhD'90 TORONTO

Seeking leaders who want to change the world.



The Harvard Advanced Leadership Initiative aims to deploy a new force of experienced leaders tackling the world's most challenging social and environmental problems.

Learn more at advancedleadership.harvard.edu or 617-496-5479.





Hedy days

The cover of the Winter/20 Magazine reminds me of my days in the 1950s in Doc Films with Fred C. Smith, AB'54, AB'55, who visited me when I was a grad student at the University of Vienna and later became an Army officer, and Ernest Callenbach, PhB'49, AM'53, who later wrote Ecotopia: The Notebooks and Reports of William Weston (Banyan Tree Books, 1975). Our pattern at Doc was to run our budget down showing great films and then to build our treasury up by showing *Ecstasy* with its risqué Hedv Lamarr appearance, which the American Legion would picket, drawing record audiences.

My best friend, Ernest Hartman, AB'52, was a roommate of Marcus Raskin, AB'54, JD'57, who gave piano lessons to Philip Glass, AB'56, and went on to cofound the Institute for Policy Studies in Washington, DC. I'm in retirement near the University of California, Berkeley, where I volunteer and audit classes.

> Donald R. Anderson, AB'57 BERKELEY, CALIFORNIA



Profit or loss?

I enjoyed Hannah Edgar's (AB'18) "Jazz as Cri de Coeur" (Winter/20) because the writer clearly explained a complicated issue. However, one point of clarification regarding the film's financial results: a profit of \$2,300 against expenses of \$8,600 wouldn't be too bad, but total revenue of \$2,300

would be a disaster. Is this what the writer meant by "income"?

> Michael Krischer, AM'72 PORTAGE, MICHIGAN

Unfortunately, the \$2,300 was not the film's profit but its revenue. Nelam Hill reported this as "income" in various correspondence. We appreciate Krischer's bringing the ambiguity to our attention.—Ed.

Remembering Bette Howland

"Howland's Gift" (Fall/19) was a sentimentally nostalgic tribute to Bette Howland, AB'55, a wonderful person, wonderful writer, and wonderful friend. Bette Lee Sotonoff and I entered the College in 1952. She was an early entrant three years younger than her peers, but more socially and intellectually mature than most.

She loved the mental challenge of the old College Core subjects and displayed early signs of her unique writing style in her fervently written essays. We became study friends and would struggle together through the mounds of reading materials to prepare for quarterly exams or comps.

Her greatest desire was to become an accomplished, acclaimed author of, hopefully, Nobel Prize-quality novels.

I was distraught after learning of her near death and was relieved when she called to invite me to visit her. As she recounts in the latter part of W-3 (Viking, 1974), my wife and I joined the multitude of old friends who attempted to reassure her of her ability to reenter the writing world and realize her goals.

Her unique style was exhibited in W-3; Blue in Chicago (Harper & Row, 1978); and other writings-but, alas, not as many as she, and we, hoped to see.

Jeffrey (Jay) Steinberg, AB'55, AB'56 CHICAGO

There is a false statement in your recent article "Howland's Gift" that has been circulating for years and needs to be corrected. The statement reads as follows:

"In 1999 [Howland] published her final piece of creative work, the novella 'Calm Sea and Prosperous Voyage,' in the literary magazine *TriQuarterly*. The editor had to cajole her into it, he told the New York Times: 'She seemed doubtful of the worth of what she had done and of what she was doing, and she was reluctant to be published."

The facts are that the editor of Tri-Quarterly in 1999 (and two years before) was my wife, Susan Firestone Hahn, not Reginald Gibbons, who had been the editor at one time but was erroneously referred to as editor in the New York Times. Moreover, it was my wife who obtained the novella through her personal relationship with Howland, and there was no reluctance at all on the part of Howland to have it published. No cajoling was necessary by reason of their relationship and the high praise my wife had for the piece.

I am not sure what can be done to correct the improper claim of credit for the publication of the novella by Gibbons. However, it is important to my wife, and to me, that the record be clear.

You may also be interested that the particular issue of TriQuarterly consisted of four novellas by women writers, something which, to the best of our knowledge, had not been done before.

Fred Hahn WINNETKA, ILLINOIS

We have updated the story online to clarify that Gibbons was not TriQuarterly's editor at the time.—Ed.

Hilleman's gift

Catching up on recent issues of the Magazine while staying home due to the COVID-19 pandemic, I realized how "By the Dozens" (Fall/19) was published slightly ahead of time. This article should be republished to remind people how vaccines help mitigate pandemics. Most interesting to me: "The 1957–58 flu pandemic killed as many as two million people worldwide, about 70,000 in the United States." We haven't heard much about that one, and how soon we forget. It would be nice to know if Walter Reed Army Institute is taking on Maurice Hilleman's (PhD'44) tradition to develop a vaccine. Thank you for your writing.

> James P. Stewart, MBA'89 SANTA ROSA, CALIFORNIA



It's a trad, trad, trad world

Thank you for the article about different cultures of Irish music throughout the world ("Reel Culture," Winter/20). I have played in Irish trad sessions in different places in the United States, but I have never played a session in Ireland. People have told me that, while many Irish sessions in the United States are sticklers for a highly "traditional" approach to the music and resist less traditional instruments or styles, sessions in Ireland tend to be more accepting of diverse instruments and styles in interpreting the tunes. If this is so, it presents an interesting perspective on the question of Irish identity forged around trad music, in Ireland and abroad. Full disclosure: My favorite session is in Burlington, Vermont, where we are very open to diverse instruments and styles. Also, I'm neither Irish nor Irish American myself.

> Deborah Cafiero, AB'89 **BURLINGTON, VERMONT**

I thoroughly enjoyed "Reel Culture." My request: please ask Aileen Dillane, PhD'09, to recommend her favorite CD of traditional Irish music-something that may be easily available.

> Robert M. Ward MANCHESTER, MICHIGAN

Aileen Dillane responds

Thank you for your query, impossible as it is (like asking me to name my favorite child)! One of the best ways I can think about limiting my answer to a few CDs is by focusing on Chicago. So here it goes.

Local fiddle player, All-Ireland winner, and celebrated composer Liz Carroll has her recordings available online at lizcarroll.com. They are all great, I genuinely couldn't pick one, though I have written about Lost in the Loop and Lake Effect as being particularly of Chicago in terms of performing place and identity. Clare fiddle player Martin Hayes lived in Chicago for a number of years and started up a musical friendship with Chicagoan and guitarist Denis Cahill. The Lonesome Touch is a beautiful album and is full of what James Cowdery referred to as the neaaa in Irish music, that sense of longing. Chicago band Bohola (named after a village in County Mayo) is really good and has numerous recordings under its belt. And if you want to connect with a highly skilled musician and local instrumental teacher, fiddle player Sean Cleland is well worth listening to.

Here in Ireland, I'd recommend anything from Raelach Records, including Ensemble Eirú, the band featuring the label owner and brilliant concertina player, Jack Talty. Also check out The Gloaming for their compelling band arrangements and This Is How We Fly for their innovative use of percussive dance as part of their contemporary folk music soundscape. All-female band The Henry Girls offer beautiful subtle arrangements and lifting sets. Finally, as an example of traditional musicians for these unprecedented times that is edgy and impassioned, Lankum will rock your world.

For more online resources, check out the Irish Traditional Music Archive in Dublin and the podcasts from Templebar Tradfest, which I'm currently researching for a three-year project. Finally, in the spirit of your namesake, the Ward Archives in Milwaukee has a wonderful online collection of music connecting Irish and Irish American heritages.

The great kazoo

I have an addition to the letters about the Themistocles, Thucydides cheer and the kazoo band ("Tales of Good Cheer," the Core, Winter/20). I recall the halftime of one football game I attended. The marching kazoo band took the field. The "band" was a big wooden model of a kazoo (the one mentioned by

Donald J. Bingle, AB'76, JD'79, Former Keeper of The World's Largest Kazoo), about the size of a canoe, plus anyone in the audience who had his or her own actual kazoo and decided to walk onto the field-and probably even anyone who didn't have a kazoo but wanted to participate. (I forget, but perhaps a few actual kazoos were handed out.) The announcer, or maybe the bandleader, then said that the "band" should illustrate Brownian motion, and the band members tooted their kazoos and milled around in random directions, as did The World's Largest Kazoo.

> Paul R. Birnberg, AB'72 MINNEAPOLIS

Rah to the nth!

"Tales of Good Cheer" reminded me of a song we performed in the 1950s at one of the annual beer parties organized by Saunders Mac Lane, AM'31, chair of the graduate math department:

C stands for C-star Algebra; H stands for Hilbert Space: I stands for Integration, a course that we cannot face; C stands for Category; A for Associative Law; G but we're weary of Galois Theory; O, orthonormal; oh, we're Conformal: Oh, what a school we're in!

The mathematical terms can be found on Wikipedia.

Morris "Moe" Hirsch, SM'54, PhD'58 CROSS PLAINS, WISCONSIN

Bring it on

Since thorough research and factual accuracy are among the hallmarks of a U of C education, I feel compelled to belabor discussion of a topic (one that has already garnered more than enough coverage) with a firsthand account-namely, the "alleged" Themistocles, Thucydides cheer.

Coming from a woefully traditional environment in the western suburbs of Chicago, I was the first graduate of my high school to attend the College (1959-63) in many years. Finding the campus culture stimulating but rather

intimidating, I compensated by engaging in familiar and more mundane extracurricular activities.

Intercollegiate sports were still being downplayed during the post-Hutchins era, but Coach Joseph Stampf, AB'41, had assembled a basketball team that would make it to the 1961 NCAA College Division national quarterfinals. When someone decided formation of a cheerleading squad was in order, I tried out and (with relatively little competition) was chosen. Perhaps even more astonishing, the University authorized funds for bona fide cheerleader uniforms: white sweaters emblazoned with the "C" logo and pleated maroon-and-white skirts! (It's questionable whether these uniforms were ever reused, though, since the half-dozen members of our squad ranged in height from 4'11" to 5'2".)

Nevertheless, as the basketball team enjoyed its wildly successful seasons, our height-challenged squad bounded and cheered on the sidelines, including "Themistocles, Thucydides, the Peloponnesian War." So, just to correct the record, this suitably erudite chant actually made its appearance in the early '60s, as opposed to later in the decade.

> Barbara Yerges Wilson, AB'63 ST. LOUIS

I first learned and chanted "Themistocles, Thermopylae, Peloponnesian War / H2Y2 H2SO4 / Who for, why for, who you going to yell for?" as a first- or second-year student at Shimer College in 1956-57 or 1957-58.

At that time, Shimer offered the Hutchins BA: our placement and com-

Themistocles, Thermopylae, **Peloponnesian War**/ **H2Y2 H2SO4**/ Who for, why for, who you going to yell for?

prehensive exams were read at UChicago; the curriculum was set at UChicago; Shimer admissions were coordinated with the UChicago admissions office; and some of the Shimer faculty had been sent to Mt. Carroll, Illinois, to initiate the Hutchins curriculum and test its workability in a small-college setting. There was a lot of informal contact between the institutions too, because many Shimer students (particularly the early entrants) transferred to UChicago or went there for graduate school or to complete a UChicago concentration before applying elsewhere. I don't know whether the chant was a UChicago chant adapted by Shimer students, or a Shimer chant that infiltrated the mother institution, but I'm guessing it was one or the other.

I transferred to UChicago for the 1958-59 academic year. I attended no sports events, so I don't know whether the students used the chant at Chicago in the late '50s.

There were also some songs I learned at Shimer that were closely tied to the Hutchins Core curriculum and might have originated at the U of C. One was sung to the tune of "The Battle Hymn of the Republic" and began, "Mine eyes have seen the glory of the triumph of the id." The chorus was, "Sociology forever / Anthropology forever / Sensuality forever/ The ego marches on."

Rosalind Conklin Hays, AB'60, AM'61, PhD'64 OAK PARK. ILLINOIS

Quarantined at home during the pandemic, I was delighted to receive the Winter/20 Magazine in the mail together with the Core. The articles and pictures in the Core brought an automatic smile to my face as I realized that the U of C's oddball intellectual humor has continued on through the generations, blossoming into "Themistocles, Thucydides" and beyond.

The picture of Big Bertha sparked happy memories of the Philosophy Bowl, the one-time intramural football classic—pitting the Aristotelians against the Platonists-sometime during my days in the college between 1947 and 1951. (Can someone date it for me?) I was on the track team, but I served as a football cheerleader (white pants and Maroon "C" sweater) and got to beat on Big Bertha. The drum had been in storage for years on a balconv in the field house, and we brought it down for the occasion. I think it was sold shortly after the Philosophy Bowl, so I may have been the last person to play it at the U of C.

Thanks for the memories and for vour talented writers and interviewers. All the best through these trying days!

> Hugh Brodkey, AB'51, JD'54 **EVANSTON, ILLINOIS**

I've just received the Core with its story regarding the University of Chicago's football teams, and there seems to be a glaring absence of mention of an attempt to bring the sport back to the University by a group of people who were students at the time, in November 1949, when we held a Philosophy Bowl game. And it comprised members of the undergraduate schools who were interested in bringing back football, if only for a brief period of time. I wrote a story about this in 1961 for Illinois History, published by the Illinois State Historical Library. Interestingly enough, I'd like to bring to your attention the fact that the actor Ed Asner, EX'48, was a member of the team on which I played at that time.

> Bernard Wax, AB'50, AM'55 BROOKLINE, MASSACHUSETTS

For Bernard Wax's full account of the Philosophy Bowl, which, as he notes, took place in 1949, visit mag.uchicago.edu /philosophybowl.—Ed.

A MESSAGE TO OUR COMMUNITY

BY ROBERT J. ZIMMER

PRESIDENT

he University of Chicago's eminence and distinctiveness are rooted in our commitment to providing our students with the most rigorous and empowering education and to providing our faculty with the research environment that will support their most original and impactful work. This has always been realized through key values that inform every aspect of our education and research activities: freedom of inquiry and expression, engagement of diverse backgrounds and perspectives, constant intellectual challenge, rigor of analysis, and seriousness of intellectual purpose. Over the past 130 years our University has faced numerous challenges, and through them all the University's commitment to these values has endured.

The COVID-19 pandemic, with its far-reaching societal impact around the globe, poses significant challenges for the University through its direct impact on the collaborative and engaged teaching, study, scholarship, and investigation at the heart of our work. The work that traditionally takes place in our classrooms, libraries, and laboratories has been temporarily replaced by remote work and learning. This has been a difficult transition for our students and their families, as well as for our faculty and staff. Nevertheless, members of the University community -on campus and around the worldhave responded swiftly and creatively to ensure that the University continues to fulfill its mission while protecting



the health and safety of students, faculty, and staff, and acting responsibly in the face of the public health challenge our societies confront.

Using a range of technologies, faculty and students have found new ways to cultivate and sustain vigorous argumentation and debate. Teams at the University of Chicago Medicine and in other areas of the University have played critical roles in combating the pandemic at the local, state, national, and global levels. The University has launched programs to support our neighbors on the South Side of Chicago, whose lives have been deeply affected by the pandemic and its economic and social consequences. We have reaffirmed our deep commitment to making our transformative, empowering education accessible to the most talented students independent of their financial need.

Around the world, the community of UChicago alumni, parents, and friends

is showing similar resilience, seriousness of purpose, and commitment to having a positive impact on society and the world. To one extent or another, all of you have been affected by, and are responding to, the COVID-19 pandemic in your lives and work: as health care professionals, as educators, as leaders in the public and private sectors, and as informed and engaged citizens. All of us on campus take pride in your collective contributions as the world faces this pandemic.

Finally, I am deeply grateful for the generosity and solidarity that have marked the University community's response to this crisis. Many of you have supported the efforts of the University's frontline health care workers, both financially and by providing medical equipment and supplies; you have contributed to our new Partnering for Community Impact initiative, enabling us to do more to support our South Side neighbors; and you have invested in the Odyssey Scholarship Program and other aid initiatives, helping address the increased needs of current and incoming students.

Your dedication to the University of Chicago and to the ongoing task of preserving and realizing its mission through our enduring values has long been essential to this institution's scholarship, students, and impact on the world. Today, that commitment means more than ever as we work to meet the challenges confronting all of us. I thank you for your continued engagement and support, and hope you and your families are well and stay safe. ◆

Get the best of UChicago, straight to your in-box.

Stay in the know between Magazine issues with our free newsletters.



On the Wright side of design

She couldn't stop International Style design, but editor and Frank Lloyd Wright confident Elizabeth Gordon, Ph827, built the magazine House Beautiful into a serious commercial and architectural influence. More →

Ge inside a course colleget by a physicist and an architect.

Smarten up your own discor with campus-inspired luminarias.

Short List

Research you can use, UChicagoans in the news, and more every other Tuesday February 2020

μChicago

a small selection of science stories

In circulation

In 2004 the American Scholar published "Joyas Voladoras." an ode to the heart by Brian Doyle (1956-2017). In this short essay he writes, "No living being is without interior liquid motion. We all church inside."

The heart powers that motion, and "every creature on earth has approximately two billion heartheats to spend in a lifetime." Doyle's average takes a little literary license, but the point remains; we have a finite number of beats, and scientists are working to make sure we squeeze out every last drop of life.

Light hearted



μChicago

A small selection of science stories each month



Crushing it: Seeing is believing

With New Year's behind us, the resolutions se made sit close shough in our reeroises to make us feel really bad for hitting the smooth button in the monitor (sizes i.k. soci., remember?). As we look at the holidays in our rearriew mirrors, the rest of the season lumbers on with very little dazzle on the hotion. The aids some sheer, Feithrany gives us a great big hog or, in my case, chocalate. My kids enjoy counting down to the faux holiday teo, and their season is sweater than mine crushes.

Remember crushes? Volentime's Day was the time you gave your intended a rudge, in hopes of being noticed in return. Knowing that my fivear-old designed is just treaking into this delicate dance of excression, I accompanied her to the store, where we searched for the perfect cards with the perfect cardly accompaniemed (fixeds are still a his). My son, less intensed in his parents' help, tends to plain group trips to the movies on that feathful day. Fin all both failure with his move-that secret fish of an invite nested into a wide net of hope that just maybe you'll be able to catch one glance or smile. To be seen-into the what we will refer years?

Parental Guidance

Monthly suggestions, strategies, and stories for parents

Sign up today for one, two, or all three.

alumni.uchicago.edu/signup



UCHICAGO JOURNAL

RESEARCH AND NEWS IN BRIEF



gu wenda, *united nations: american code*, 2019, human and synthetichair. Commissioned by the Smart Museum of Art, Los Angeles County Museum of Art, Seattle Art Museum, and Peabody Essex Museum. Detail of installation view at the Los Angeles County Museum of Art. Photo: © Museum Associates/LACMA.

PHILOSOPHY

The examined life

Winning Words prepares high schoolers for an epic ethics competition.

BY LUCAS MCGRANAHAN

"Is it disrespectful to the victims of slavery to celebrate a wedding on a former slave plantation?" asks Jacob Blitz, Class of 2020, in a Cobb Hall classroom. He's not posing the question to classmates or a professor. He's addressing two teams of high schoolers at the fifth annual Chicago Regional High School Ethics Bowl competition.

Held on the Saturday before the Super Bowl, the event is about scoring points through feats of intellect and persuasion rather than physical prowess.

The team from Walter Payton College Preparatory High School has already won the coin toss and opted to go first. After rereading the case (the teams have seen it before in practice) and discussing it among themselves for the allotted two minutes, the three team members advance their position: the wedding plan is unethical, especially since the case specifies that the couple is aware of having family who benefited from the plantation's history of slavery.

In a response period, the opposing team from Daniel Hale Williams Preparatory School of Medicine-a Bronzeville public school-pushes them to clarify their view. Would the wedding be acceptable if this particular plantation never had slaves, or does the broader legacy of the plantation system spoil the idea inherently? Should the couple consider how the choice of venue affects their family members and other guests?

Later, in a round of questions from judges, UChicago philosophy PhD student **Kévin Irakóze** pushes further: "Should the houses be abandoned, should they be burned?"

Not necessarily: the plantation could be converted into a museum, akin to a Holocaust museum, the Walter Payton team suggests.

Ethics bowl is not a debate. Teams do not start with a conclusion and work backward to justify it at all costs. They formulate a position in real time, refining their viewpoint by considering challenges from the opposing team and from a panel of judges. The opposing teams need not have oppos-



Students face off at the fifth annual Chicago Regional High School Ethics Bowl. Unlike debate, teams don't take opposing stances on issues. In fact, they can score points by helping to clarify and deepen their opponents' arguments.

QUICK STUDY

COMPUTER SCIENCE

Read now -before it's gone!

More than one in

10 retail websites

use aggressive and sometimes deceptive tactics to get you to buy more, according to a study from researchers including computer scientist **Marshini Chetty.** These so-called dark patterns include such plovs as false countdown clocks on a particular deal and signing you up for recurring payments under the pretense of a free trial. The research, published in the November 2019 Proceedings of the ACM on **Human-Computer** Interaction, used a new web-crawling tool to analyze more than 50,000 product pages from 11,000 shopping sites. It's the first time computer scientists have estimated the scale of the phenomenon, and they hope it will help government regulators crack down on the most egregious abuses.—S. A. ♦

ing arguments; they can gain points by helping add nuance and depth to each other's views. As the scoring guidelines state, "Listening to the other team with an aim to affirm, supplement, or build on their argument is a prudent approach."

In other words, functional civil society. High school ethics bowls are relatively new: intercollegiate competitions came first, in the 1990s, with high school contests following in 2012. Today the National High School Ethics Bowl championship, held annually at the University of North Carolina at Chapel Hill, draws teams from 39 regional competitions around the country, including the one in Chicago.

Ethics Bowl was the brainchild of Illinois Institute of Technology (IIT) philosophy professor Robert Ladenson. But the current vibrant high school ethics bowl scene in Chicago can be traced largely to the work of one UChicago faculty member: Bart Schultz, PhD'87, senior lecturer in philosophy and director of the Civic Knowledge Project (CKP). Schultz leads CKP's Winning Words program, which prepares students for ethics bowl competitions, in collaboration with Kelly Laas, librarian/information researcher at IIT's Center for the Study of Ethics.

Winning Words mobilizes its interns, mostly College students, to foster philosophical conversation among students as young as second graders, with a focus on underserved communities on the South Side. Instruction sites include public schools, as well as the Laboratory Schools and XS Tennis, a mission-driven sports facility located a few blocks west of Washington Park.

Socratic in outlook, Schultz enjoys bringing philosophy to the people. "The marketplace, the tennis court," he says with a laugh, "there are all sorts of opportunities."

Schultz says that in the 2019–20 academic year more than 100 high school students participated in ethics bowls in Chicago, representing a dozen schools. Some teams are seeded by the Winning Words program and then run more or less independently. But for many teams, the Winning Words interns are a critical resource.

Ira Abrams, AB'90, an English teacher at Daniel Hale Williams, praises intern Gabriel Sánchez Ainsa, Class of 2022, for his work supporting a group of engaged students who formed a team this year: "Rain, snow, or shine he bused it out to 49th and Wabash to meet with us every week, ... and miraculously, all seven students stuck with this weird activity all the way through the regionals at the beginning of February."

Senior Takeisha Washington appreciated the effort and her ethics bowl experience: "It gave me more insight into what it means to be in a competitive academic environment."

For a handful of teams, the road to regionals included a practice round hosted on South Campus the previous week by UChicago's Office of Special Programs-College Prep. After an overview of college readiness resources by OSP-CP director Dovetta McKee, the teams sharpened their skills in some scrimmages: Is it disrespectful to walk a dog in a cemetery where no one has been buried for decades? Should the state impose chemotherapy on a 17-year-old patient who refuses treatment? They'll face some of these questions in the real competition, but they don't know which ones.

When it came to regionals, only one team could emerge victorious: after several rounds full of note-taking, huddled discussion, and sallies of dialogue-plus a lunch break for pizza—Walter Payton College Prep had broken away from the pack. They went on to best the winner of the Indiana regional competition and would have headed for nationals in the spring, had the event not been canceled due to COVID-19.

Schultz is now working to develop smaller, more experimental ethics bowl events (XBowls) that would help prepare students for the regional contests, while also recruiting students to perform at an international philosophy conference in summer 2021. Meanwhile, teams around Chicago are revisiting their playbooks and hoping to kick off next year with new recruits. ◆

A balm in Gilead

Two Divinity School graduates lead an unorthodox Chicago church that aims to heal spiritual wounds.

BY SARAH CAHALAN

Onstage at the Chicago nightclub Mary's Attic, Rebecca Anderson and **Vince Amlin** stand side by side at a pair of microphones. As a keyboard introduction begins, they take a breath, look out at the few dozen people scattered between them and the rainbowflag-draped bar on the back wall, and launch into Cher's "Believe."

It's not a lip-synch show or a karaoke night, though both happen often at what Out magazine has called one of the greatest gay bars in the world. It's church—and they're the pastors.

"Our tagline is, 'We're not for everyone, but we might be for you," Anderson, MDiv'10, says of Gilead Church, the community she and Amlin, MDiv'09, cofounded in 2017. "And we mean it."

Like a growing number of orthodoxy-shattering religious efforts nationwide-Denver's House for All Sinners and Saints, the DignityUSA movement in the Catholic Church-Gilead is a nontraditional church for a not traditionally churchgoing crowd.

"There's this cultural lie," Anderson says, "that if you're urbane or smart or educated or a Democrat or a socialist or a feminist or sexual or pro sex," religion isn't for you. That attitude, the copastors believe, hurts people—which is why Gilead, named for the biblical land known for its miraculous healing powers, serves as a balm for those who've felt excluded.

Despite the church-running credentials Anderson and Amlin have today, they, like their parishioners, aren't stereotypically religious. Amlin studied

dramatic writing at New York University before pivoting into the clergy, while Anderson spent much of her 20s rebelling-through stand-up comedy, mostly-against the environment she'd been raised in as the child of an evangelical pastor. Growing up, she says, she was taught that religion meant "you're in or you're out." Since she took issue with her denomination's treatment of women and its punitive theology, she assumed she wasn't welcome.

When she learned that the church down the street had an out, married lesbian behind the pulpit, Anderson realized that the family business might have room for her after all. She enrolled at the Divinity School, hoping to one day start a church like the one that brought her back into the fold. Unbeknownst to her, her classmate Amlin was planning the same thing.

Our tagline is, "We're not for everyone, but we might be for you." And we mean it.

"My classmates have reflected back to me," Amlin says, "that apparently, when we were starting div school, I would go around saying I was just going to have a church of 12 people. *Like Jesus*."

Though he cringes at the apostles comparison now, he admits that he clearly always had what Anderson calls the "new stuff gene." The two crossed paths only casually at school, but when they joined the same small group of UChicago divinity grads for a series of annual retreats, their shared interests were revealed.

They formed a "summer-camp, magical kind of relationship," Amlin says, "where you're really only seeing the person once a year, maybe twice a year, but the time that you're spending together, you're spending on the deepest parts of yourself."

Over coffee on one of those retreat weekends, Anderson suggested that the two of them cofound a church. Amlin was already five years into a pastor role in Florida, but he nonetheless felt that the out-there idea could work.

"I needed a challenge, and I wanted to try and do something that I wasn't sure that I could do," Amlin says. "Something like 85 percent of new churches fail in, like, a very short amount of time, ... so the odds are very against us. But that made it attractive."

The fledgling co-pastors also agreed about the mission of their new endeavor.

"Very early on, we came up with a version of the statement, 'We want to be church for and with people who have been told or made to feel that church isn't for them," Anderson recalls. Initially, that meant LGBTO people, a group that both founders feel has been historically wronged by Christian churches. "And then, not very long into it, [we realized], oh, tons of people are told or made to feel that church isn't for them."

Committed to reaching out to those alienated groups, Anderson and Amlin set plans in motion to establish a church on Chicago's North Side. For him, that meant a move back to the city with his wife and newborn. For her, it meant securing the duo a day job-which came courtesy of Ravenswood's Bethany United Church of Christ, one of the two denominations that supports Gilead. The other is the Christian Church (Disciples of Christ). Anderson and Amlin serve as the more established congregation's co-pastors and are allowed to use Bethany as office space for the nomadic Gilead community they lead. By January 2017, Gilead Church was ready for its first service.

The liturgies have changed a bit in the years since—pop songs came into play in 2017; an early interest in homebrewing Gilead beer shifted from central focus to intermittent parish hobby—but today they follow a deceptively traditional playbook. Each Sunday night meeting begins with a song, followed by a welcome, a sermon from one of the pastors, and the Gilead spin on "the word of God for the people of God": parishioner-led storytelling on





Quirky services are the norm at Chicago's Gilead Church, whose founders sought to create a new kind of spiritual community.

spiritual awakenings as diverse as a nonbinary twentysomething finding a new name or a congregant's first relationship postdivorce. (In the time of COVID-19, these stories have become the core of Gilead's work, through video posts on the church's social media.) The congregation shares intentions, passes around a collection plate-or, depending on the week, an

empty Bud Light pitcher—and gathers for a communion of homemade bread. A closing song, like "Proud Mary," or Natasha Bedingfield's "Unwritten," wraps things up.

Gilead's work, as Anderson is fond of saving, represents not a new gospel but a new translation of the gospel that Christians already know. It won't resonate with every Christian out there, the pastors recognize—but

She recalls a conservative member of her family asking if she would be welcome at Gilead.

"You're totally welcome!" Anderson replied. At the same time, she pointed out, "you can go into any church."

Gilead was created for the people who can't. ◆

MEDICINE

Breadwinners

Medical researchers have an important new tool for the study and treatment of celiac disease. A team, including Bana Jabri of UChicago Medicine, succeeded in breeding mice with the same genetic and immune system characteristics as humans who develop celiac after eating gluten. The study appeared February 12 in *Nature*. It's taken researchers more than two decades to develop a mouse model that exhibits all the complex aspects of human celiac disease; now that they have one, they can use it to develop new treatments for the gastrointestinal ailment, which affects about 1 percent of the US population.—S. A. ◆

URBANISM

Skateboard sociology

What the fight over an iconic Philadelphia skate spot means for cities everywhere.

BY SUSIE ALLEN. AB'09

In the late 1980s, a group of skateboarders discovered an underused square in downtown Philadelphia and made it their own. To them. John F. Kennedy Plaza (known to most as LOVE Park, thanks to Robert Indiana's iconic sculpture) was a granite paradise. Before long, professionals and amateurs from around the world began making pilgrimages there.

But Philadelphia's leaders took a dim view of the park. It had become a hangout for drug dealers and the homeless, alongside skaters. In 2012, the city announced plans for a major redevelopment, sparking a debate that lingers even today. Skaters and supporters felt the community they'd created at LOVE Park was a distinctive. authentic Philadelphia treasure.

In the fight over LOVE Park's future, PhD student Luke Cianciotto. AM'18. saw a distillation of what he'd been studying in urban sociology-and what he'd experienced as a skateboarder. Here were two groups, the city and the skateboarders, each asserting a different type of ownership over a public space. These fraught claims were the subject of Cianciotto's master's thesis, which became an article in the journal City & Community.

Often, conflicts over urban property center on the privatization of public land. Yet this public-private binary "leaves a lot out," Cianciotto says. The dispute over LOVE Park was just as complex as any dispute over a private space. But his field didn't have a good way to talk about it. So he proposed a new framework, arguing for a

conceptual distinction between public space—which is designed, managed, and surveilled-and common spacewhich is flexible, spontaneous, and selfmanaged by its users.

Both public and common spaces can be putatively open to all, but users experience them very differently. The boundary between public and common is porous, as when a spontaneous neighborhood block party spills out into a city street.

The distinction between public and common space is "a brilliant distinction and a very useful one," says Marco Garrido, an assistant professor of sociology and Cianciotto's adviser. "We're seeing a trend ... of spaces being sanitized and becoming increasingly anti-common, despite their publicness"—think, he says, of Chicago's Millennium Park. The advent of so-called hostile architecture, designed to discourage loitering, sleeping, and skateboarding, troubles critics who feel such measures are not only unnecessary but also unfair. Public spaces, they argue, should not discourage public use.

One perhaps surprising proponent of that view was the John F. Kennedy Plaza architect, Edmund Bacon, who in 2002, at the age of 92, rode a skateboard across the park to protest the city's skateboarding ban. "Skateboarding at JFK is wonderful," he said. "It does no harm to anyone."

Central to the skateboarding community's claim over LOVE Park was sweat equity: they took care of the space, even removing snow in winter. As one former LOVE Park skater told Cianciotto, "We really considered it ours. ... I don't know of any other citizen who would just willingly shovel a city property for free."

We're seeing a trend... of spaces being sanitized and becoming increasingly anticommon, despite their publicness.

But this wasn't the type of community or caretaking that the city valued. The old LOVE Park didn't fit their vision for a rebranded downtown. "It was a beacon of deviance set right across from city hall," Cianciotto says.

Rather than intense use by a small, devoted group, city leaders imagined casual use by a broader public. They proposed a more tourist-friendly offering, with a beer garden, food trucks, concerts, and cafés. It was, Cianciotto feels, not only a shift from commonness to publicness, but also a transformation of the irreplaceable into the banal.

To Cianciotto, this debate-intense



use and caretaking by a dedicated group versus more circumscribed use by a broader public—is a hallmark of the public/common dilemma. He's particularly interested in homelessness in public spaces, which raises many of the same questions as skateboarding in LOVE Park: Who do we include and exclude from the category of "the public"? What makes one type of use more valid than another?

He's currently researching a longstanding tent city in Chicago's Uptown neighborhood, near the entrance to a city-sanctioned skate park he visits often. His interest in sociology continues to intersect with-and traces back to-his own skateboarding. After years spent scouting for skateable features and surfaces, skaters develop "a unique sensitivity to space," he says. "Skateboarding really shapes the way you think and look at the world around you."

And he's continuing to watch how LOVE Park evolves. The rebranded plaza is working much as city planners envisioned it, with downtown workers eating lunch and tourists taking photos with the LOVE sculpture. But the old LOVE Park hasn't been fully erased: enforcement is much stronger now, but the occasional skater still pushes along, undaunted. •



Despite a city ban, skaters flocked to LOVE Park for decades.

W.R. HARPER'S INDEX

HOT DATA

Launch date of the Parker Solar Probe, named for UChicago physicist Eugene Parker

Year Parker predicted the existence of solar wind

Perihelia (close approaches in orbit) completed so far

Speed of the solar wind rotating around the sun, in kilometers per second, as measured by the probe

Closest the probe will get to the sun, in millions of miles

Distance, in millions of miles, at which dust around the sun thins (theorized but not observed until now)

Scientific papers resulting from mission data as of 2.3.20

UChicago at your fingertips

We know it may be a little while before you can get back to campus. Here are a few ways to experience UChicago from wherever you are. For links, visit mag.uchicago.edu/uchicago -your-fingertips.—S. A.



Get theatrical.

Stream Theater and Performance Studies lecturer Seth Bockley's theatrical adaptation of 2666, a novel by Chilean writer Roberto Bolaño. The story follows a group of academics trying to learn more about a mysterious German writer.



Browse the Seminary Co-op's front table without leaving home.

While you're there, check out the bookstore's podcast, Open Stacks, for conversations with writers and scholars from around the world.



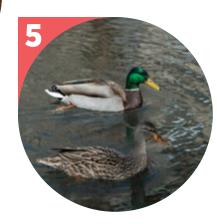
Explore UChicago's public art collection.

Did you know there's a 1957 Cadillac encased in concrete parked on campus? Learn where it is and why German artist Wolf Vostell created it.



Take an online tour of the Oriental Institute.

Dig into exhibits on hieroglyphics, Persepolis, and business in the ancient world.



Connect with nature.

Say hello to the ducks via the newly installed Botany Pond livestream.

Highpressure endeavor

Scientists know that

a large amount of carbon is buried in Earth's interior, but extreme conditions in the mantle make measuring the precise quantity almost impossible. Knowing the amount of carbon in deep water reservoirs is essential, because it can affect how carbon on Earth's surface behavesand that, in turn. affects the climate. Now researchers, including Giulia **Galli** of the Pritzker School of Molecular Engineering, have gotten closer to solving the puzzle by developing a novel computer simulation. The team's approach, published January 21 in *Nature* Communications, harnesses quantum mechanics and spectroscopic measurements of ions in water to estimate the concentration of ions and molecules in water at the mantle's ultrahigh temperatures and pressures. Early results suggest that existing models of how carbon dioxide dissolves in water at high pressure may need to be revised.—S. A. ◆

PATCH WORK



o know whether a drug effectively treats a disease, you need a way to measure its effects. That challenge has long frustrated efforts to combat amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease. In its early stages, the motor neuron disease is tricky to diagnose. In 2016 a UChicago team, including neurologists **Naoum Issa** and **Kourosh Rezania**, identified an important ALS hallmark: reduced intermuscular coherence, the difference in how two muscles respond when stimulated by a shared nerve. Now molecular engineer **Sihong Wang** has taken that finding and created a skin-like tool with highly sensitive electronic circuits.

Wang's wearable device, shown above, measures electrical activity in the muscles in real time, giving doctors and patients data they can use to diagnose and monitor ALS. The researchers were able to create prototypes of the tool with the help of Argonne National Laboratory. Wang is continuing to investigate new ways to aid ALS sufferers, including collaborating with neurologist **Nicholas Hatsopoulos** on a skinlike exoskeleton that could help patients maintain effective motor control.—*S.A.* •

For the record

A HISTORIC CHALLENGE

In response to the COVID-19 pandemic, Spring Quarter classes are being taught remotely and milestone events including Convocation have been shifted to a virtual format. In an April 5 message to the campus community, President Robert J. Zimmer wrote, "I am confident that we will not only preserve what is so distinctive about the University of Chicago, but also find new ways in which our enduring values and meaning can be realized." For more on UChicago's response to the pandemic, see "Together in Spirit," page 26.



LEGAL LEADER

Thomas J. Miles. AM'96, PhD'00, has been appointed to a second term as dean of the Law School, beginning July 1. In his first term Miles launched a threeyear JD/MBA program and a

fellowship for aspiring academics and policy makers interested in applying behavioral economics to corporate governance and finance. The Law School also set up two new clinics—one, a partnership with the firm Jenner & Block, pairs students with litigators to work on US Supreme Court and federal appellate cases, and another focuses on immigration rights. Miles, the Clifton R. Musser Professor of Law and Economics and Walter Mander Research Scholar, studies criminal justice and judicial behavior.

TRANSITION AT GRAHAM

Emily Lynn Osborn,



history, will serve as interim dean of the **Graham School of** Continuing Liberal and Professional Studies, the center of lifelong learning at UChicago. She succeeds Stuart Flack, who left the

University in April. Osborn, a codirector of the Committee on African Studies and a 2016 recipient of the Quantrell Award for Excellence in Undergraduate Teaching. chairs Graham's faculty board.

STEM SCHOLARSHIPS

College third-years Spencer Dembner, Vennela Mannava, and Thomas Propson are

among 396 students nationally to receive 2020 Barry Goldwater Scholarships, a top honor for undergraduates in mathematics, engineering, and the natural sciences. The scholarships of up to \$7,500 fund students during their final year of undergraduate study. Dembner is majoring in mathematics, Mannava in chemistry, and Propson in physics and computer science. All plan to pursue graduate degrees.

SERVICE LEARNING

College third-years Kristen Busch and Rodrigo Estrada received Harry S. Truman Scholarships, which provide up to \$30,000 for students embarking on careers in public service. Busch plans to pursue a joint JD/MPP and study economic, technology, and disability policy; Estrada will seek a JD/PhD and hopes to become an advocate for underserved communities along the US-Mexico border. Both are joint BA/MA students in economics and international relations.

EARLY CONTRIBUTIONS

Three UChicago assistant professors have earned Sloan Research Fellowships, which recognize early-career scientists' potential to make substantial contributions to their fields: A. Murat Eren (medicine) studies microbial lifestyles in habitats from oceans to the human gut; Raymond Moellering (chemistry) develops chemical tools and technologies to understand how molecular information is communicated by proteins within and between cells, with an eye toward intervening in human disease; and Sebastian Hurtado-Salazar (mathematics) works in the area of topology, the study of shapes and spaces. They are among the 126 recipients of the two-year research fellowships in 2020.

GUGGENHEIM FELLOWS

Five UChicago scholars received 2020 Guggenheim Fellowships: Mark Philip **Bradley**, the Bernadotte E. Schmitt **Distinguished Service Professor of** International History; Diane Brentari, PhD'90, the Mary K. Werkman Professor of Linguistics; Patrick Jagoda, professor of English; Tahera Qutbuddin, professor of Arabic literature; and Catherine Sullivan, associate professor of visual arts. They were selected "on the basis of prior achievement and exceptional promise," the John Simon

Guggenheim Memorial Foundation said in its April 8 announcement, and are among 175 fellows this year.

WRITERLY HONOR

Ben Hoffman, lecturer in creative writing, and Ling Ma, AB'05, assistant professor of practice in the arts, received creative writing fellowships from the National **Endowment for the** Arts. Hoffman, whose short stories have appeared in American Short Fiction, Granta, the Missouri Review. and Zoetrope, is at work on a novel centered on the 1979 Three Mile Island accident. Ma is the author of the Kirkus Prize-winning novel Severance (Farrar, Straus and Giroux, 2018). about a fictional pandemic, for which she

DISTINGUISHED CAREER

(see Notes, page 52).

At the Modern Language

also received the Whiting Award for fiction

Association conference in January, Lauren Berlant received the 2019 **Hubbell Medal for** Lifetime Achievement. The medal is presented annually by the MLA's **American Literature** Section to a scholar

whose work has significantly advanced the field. Berlant, the George M. Pullman Distinguished Service Professor in English, is also known for her contributions to the studies of gender and sexuality, affect, and trauma.

COMMON PURPOSE

The Center for the Study of Race, Politics, and Culture (CSRPC) is one of four centers of race and ethnicity that will share a \$4 million grant from the Andrew W. Mellon Foundation. The four-year grant will support collaborative work between CSRPC and counterparts at Yale, Brown, and Stanford Universities. It will allow CSRPC to create new programming; expand grants for faculty, postdocs, and graduate students: and offer fellowships for visiting scholars. The grant will also fund new public engagement partnerships and annual meetings and conferences among the four recipient campuses.





INTERVIEW

Chill factor

Actor Katlyn Carlson's (AB'05) journey to Broadway.

BY SUSIE ALLEN. AB'09

In 2015 actor **Katlyn Carlson**, AB'05, got an email from her agent about an audition for a new musical. The message described high school queen bee Chloe Valentine as "self-absorbed, crass, sexy, manipulative, and hilarious in her disregard for others." Carlson's reaction? "Sign me up."

She didn't know she was embarking on a project that would make her (as best she knows) the first person from her hometown of Eureka, Missouri, to perform on Broadway. *Be More Chill* follows a teenager who implants a supercomputer in his brain to gain popularity. It went from a small New Jersey production to an off-Broadway run and then a Broadway production that closed in August 2019. Along the way, the original cast album became a surprise hit, attracting a passionate online fan base.

Carlson, who played the lead in the film *Holly Star* (2018), told the *Magazine* about life on Broadway. Her comments have been edited and condensed.

Why were audiences so passionate about *Be More Chill*?

It has a pretty simple message about being true to yourself, recognizing that

who you are is enough, and that outside influences, and sometimes the voices in your own head, are not steering you in the right direction. You have to love yourself.

I think that people, especially teenagers, were able to see a lot of themselves in any number of the characters.

How did it feel to be the subject of a such an intense fandom?

We were not ready for the insanity that crashed over us. We had a few fans who were asking for autographs in the original production, but then off Broadway, it was absolute pandemonium. We felt like the Beatles.

It escalated when we went to Broadway. We had to move the stage door from the back of the theater to the front, because the backstage door was on a narrower street, and there wasn't enough room for cars when hundreds of people were waiting.

How did you keep things fresh for yourself on Broadway?

The Broadway experience was so challenging, Physically, mentally, vocally—

every possible aspect was so much harder than the previous two iterations. Trying to stay ahead of your own inevitable exhaustion and injury, in itself, kept things fresh by necessity. Like, if I'm not on my game, I could step the wrong way, roll my ankle, and be out of the show.

But the audiences were such a gift. They just loved the show so much and no matter how exhausted you were, it was impossible to not feel that energy and love radiating back at you. It was like falling back in love with the character and the show, every night.

Did you ever consider going to an acting conservatory?

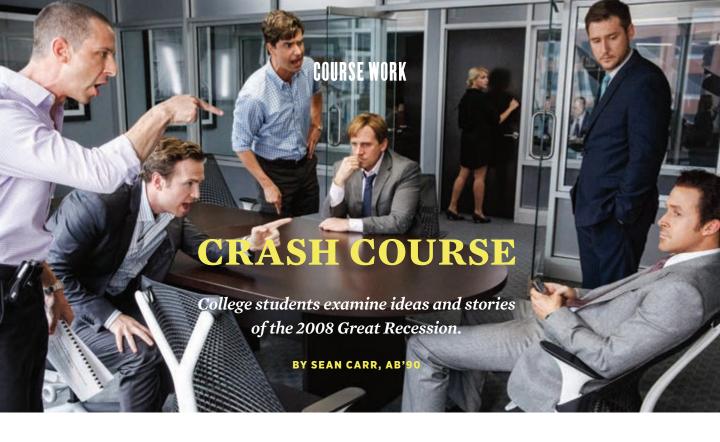
I had totally fallen in love with theater in high school, but I knew I wanted a liberal arts education. The U of C felt like a perfect fit for my academic goals, and I admired the student-run theater program. It didn't feel right at that point to abandon everything else and do a conservatory program.

I felt like I had found a good balance at school, and I was able to start doing theater professionally by the time I graduated, so it all worked out.

Have you had any weird day jobs alongside acting?

I worked at one of the last manualset bowling alleys in Chicago, scoring games by hand because people don't know how to do that anymore. I was a terrible waitress a few times.

When I got to New York, I fell into a godsend of a day job—definitely one of the weirdest things I've ever done, which was fit modeling. I was a human mannequin. I would just try on clothes for designers, for hours. They and the design technicians would come in and make corrections to the garments. At different stages of production, I would give input on how the clothes fit. So I was a mannequin who could talk. That paid well and was very, very strange. •



n a Sunday evening in late January, students in Cobb 301 are pushing tables around, transforming the standard conversation-promoting square into rows angled to face a flatscreen TV in the corner of the classroom. Just before 5:30. Kenneth Warren, the Fairfax M. Cone Distinguished Service Professor in English, arrives with a helper and a dozen or so Giordano's pizza boxes, salad containers, Pepsi and ginger ale two liters, and a Blu-ray of director Adam McKay's 2015 film The Big Short.

It's movie night for English 26249: Literature and the Financial Crisis of 2008.

Once the 30 or so students are settled in with pizza and pop, Warren, leaning against a wall, provides some food for thought as they watch the movie. He asks the class to think back to the texts on neoliberalism that comprise most of the readings thus far. (They also have Aravind Adiga's 2008 The White Tiger [Free Press] under their belts, the first of four novels they'll discuss this quarter.) Specifically, Warren prompts, "Are there heroes, are there villains within the system whose actions either could



Are there heroes. are there villains ... or are we looking at something systemic?

be more timely or more insightful"thus preventing or ameliorating what happened in 2008—"or are we looking at something systemic, and what view that has on how we might see the film?" With that, it's Warren's turn to grab some pizza. And roll film.

For those who missed it or need a refresher, The Big Short follows four people—a doctor turned investment fund manager (Christian Bale), an angry-at-the-world Wall Streeter (Steve Carell), and two guys (non-marquee actors) running a hedge fund out of their garage-who each anticipated the subprime mortgage collapse and bet against, or shorted, the US housing market. This potentially dry procedural is juiced up with a restless camera and staccato editing, every scene crammed with cutaways to hip-hop videos, infomercials, news footage (stock tickers, foreclosure signs), even The Wealth of *Nations*—like a 50-browser-tabs-open "what caused housing crisis" Google search. Characters address the audience directly and celebrities are deployed to clarify complicated financial instruments, as when singer-actress Selena Gomez shows up playing blackjack and talking synthetic collateralized debt obligations with the "father of behavioral economics," Chicago Booth's Richard Thaler.

So it's no surprise, after the movie ends, that Warren wants to spend a little time discussing "the narrative deciIn twice-weekly lectures for Literature and the Financial Crisis of 2008, Warren could be found mashing up disquisitions on poststructuralism and median home prices.

sions that the film makes," noting, "I get to talk to you all the time"-during the week, it's a maxed-out 40-person lecture class-"I don't get to hear you talk as much as I might like."

A guy in the back is the first to chime in: "There's a lot of visual juxtaposition, as the financial language starts to become too convoluted and specialized, with images of what's happening to people who are getting their homes foreclosed upon." It's a reminder, he says, "that the thing they're explaining trickles down to that."

"Juxtaposition in some sense has to be a kind of strategy for the film altogether, in part because you have multiple stories," Warren agrees, while noting that the technique isn't new.

A young woman in a gray sweaterone of many students opting for that shade this chilly evening-suggests that when the characters break the fourth wall to comment on whether a particular incident happened the way it's depicted, it's to "remind you that this is a real story," even though "there's a lot of it that seems really absurd and hard to believe."

"I was intrigued by the way it plays

with the fantasy of wealth," a Philip Seymour Hoffman doppelgänger says about the celebrity cameos. "It's Anthony Bourdain in this luxury restaurant, ... Margot Robbie in her luxury apartment. ... It feels like there's a set of stakes to what they're talking about in this fantasy that is achievable if you play this game of money."

Warren wants to make sure the class doesn't miss a particular bit of "heavy imagery," when Carell's character and one of his partners go to Standard & Poor's to ask why they're still giving mortgage bonds solid ratings while the mortgages within them are defaulting en masse. The woman they talk to, apparently fresh from an appointment with her eye doctor, is wearing huge dark glasses-the "film obviously playing with blindness, over the refusal of the system to see what it's doing," Warren says. Yet, "at a crucial moment when they're getting self-righteous with her, she takes off the glasses. What does she say at that moment?"

"She says that they're hypocrites," answers a woman in a (gray) UChicago sweatshirt. Warren prods: "Why is that?"

"It's because even though they're betting against, sort of, the corruption in the system, they're still going to profit based on how the system works," she explains.

"To win in this instance depends ultimately on these mortgages failing," Warren says, asking how viewers are supposed to feel about their emotional investment in the movie's main characters—who, after all, are just "trying to make money." Are there heroes? Are there villains?

A woman, breaking the tacit dress code in a maroon sweatshirt, brings up the moments in which the film creates sympathy for its characters. She points to Carell's stick-it-to-the-stock-market character at the end of the film, when the economy is in freefall, "looking like he's about to have a breakdown instead of cheering that he's just made a billion. The actual outcome is still the same," she says, "it's just how he feels about it that's different."

Warren, looking to sum things up, asks the class how much the investment fund of Christian Bale's footwear-averse Dr. Michael Burry made from its shorts. The class tosses several figures back and forth before arriving at the correct amount: \$2.69 billion.

"I just made a lot of money for a lot of very wealthy people," Warren says from inside Bale's head. "I don't feel good about it. I want to tell everybody. I want to tell the government afterward what went wrong." Then, as himself, "He did make a lot of money. But is making a lot of money a bad thing?"

That's a question that will have to wait for that week's lectures. In the meantime, as they begin moving tables back into a square, one of the course assistants notes that half a dozen unopened pizza boxes remain up for grabs. There's little question that the students who seize this opportunity will return to their dorms or apartments as heroes. •

SYLLABUS

An undergraduate course, English 26249 had several goals: "to understand the challenges that representing the 2008 crisis posed to novelists; to try to understand the social and ideological location of literature in relation to that crisis; and more generally to try to understand neoliberalism as a theory and a politics."

Readings started with David Harvey's A Brief

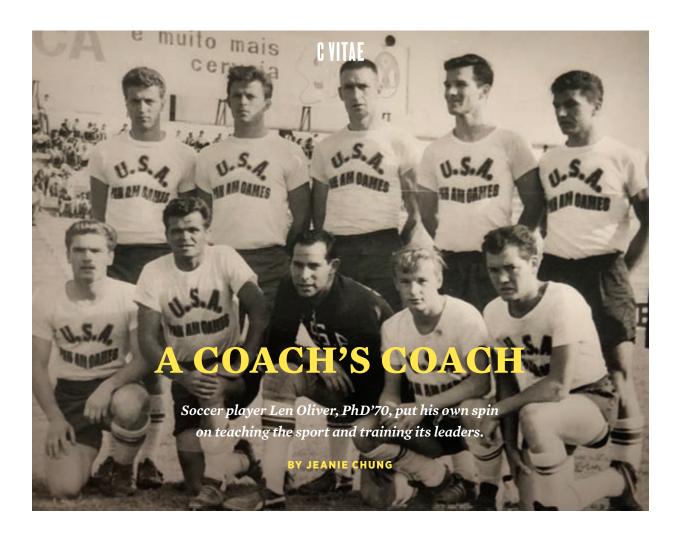
History of Neoliberalism (Oxford University Press, 2005) and a selection of critical and historical essays, including "Neoliberal Aesthetics: Fried, Rancière, and the Form of the Photograph" (2011) by Walter Benn Michaels.

The three novels that took up the bulk of the course, along with Adiga's The White Tiger, were Kudos (Farrar, Straus, and Giroux, 2018) by

Rachel Cusk. Capital (W. W. Norton, 2012) by John Lanchester, and 10:04 (Faber and Faber, 2014) by Ben Lerner.

In addition to watching The Big Short, students were asked to listen to a 2008 episode of *This* American Life dedicated to the financial crisis, "The Giant Pool of Money," which was co-reported by Adam Davidson. AB'92.

−S. C.



v the time he arrived at UChicago for graduate work in adult education. Len Oliver, PhD'70, had hung up his cleats. But he brought his soccer philosophy with him: stick with it no matter the score. "Do your best," says Oliver, a National Soccer Hall of Fame member. "Don't worry about awards. Get something out of every experience."

Later, as a coach and a trainer of coaches, he took a leadership approach based on principles he'd learned in graduate school. "I don't lecture to them," he says. "I get them involved and make them feel part of the game. Let them ask their questions early and get them talking." He's told the more than 5,000 vouth coaches he has trained the same

thing: let your players learn by doing.

"One of the great characters in American soccer" according to Washington Post sports writer Steven Goff, Oliver "has seen it all." In addition to his legacy as a player, coach, and coaches' mentor, Oliver will make another enduring contribution to the sport—and to athletes everywhere—by donating his brain after his death to a research foundation associated with Boston University.

Oliver estimates he suffered six concussions as a player, though at the time they were not diagnosed as such. As more and more research points to the dangers of traumatic brain injuries in sports, a number of notable athletes have chosen to donate their brains posthumously for medical research. Among them are Women's World Cup veteran Brandi Chastain and Taylor Twellman, a former most valuable player in Major League Soccer. Oliver is now 86, so his decision is likely to come into play much sooner.

Sons of a Scottish immigrant, Oliver and his twin brother. Jim. followed in their father's footsteps and grew up playing soccer—then largely considered an immigrants' game-in Philadelphia. A midfielder, Len was an alternate for the 1952 Olympics in Helsinki and hoped to make the 1956 team. To keep his skills sharp, he played in a semipro league for a team called Uhrik Truckers. Before tryouts in the fall of 1955, an opposing player slide tackled him, breaking his fibula. Then, when it came time to try out for the 1960 team, he had mononucleosis.

"I was told that adversity builds character," he has written. "I had my share of it."

Len Oliver, PhD'70, was part of the 1963 US national soccer team (he is second from right in the back row). The team is shown here at the Pan American Games in São Paulo, Brazil.

Finally, in 1964, at the age of 30, he made the team and played in pre-Olympic qualifiers. Although the United States didn't go to the Olympics in 1960, 1964, or 1968, Oliver is proud to be part of the foundation for a team that has grown into a frequent if not perennial international competitor. "The game is coming along," he says, spurred in part by the women's national team and its World Cup wins in 1991, 1999, 2015, and 2019.

In between Olympic tryouts, Oliver served in the Army, where he stayed active in the game alongside his other commitments. Stationed at Fort Devens in Massachusetts, he played semipro. Later, while learning Romanian at a Monterey, California, language school, he commuted to San Francisco to play soccer on weekends. And he was on an armed forces all-star team while stationed in Germany.

After a brief stint in the CIA, Oliver got a master's degree in labor economics from the University of Maryland. Staying on at the school to work at its conference center, he crossed paths with Cyril Houle, PhD'40, a UChicago faculty expert in adult education. The connection led to his enrollment in the University's doctoral program in education in 1967.

While in graduate school Oliver worked on political campaigns for Abner Mikva, JD'51, and former civil rights advocate Al Raby, EX'69. His path toward a career in politics turned, however, when the National Endowment for the Humanities invited him to interview. He got the job and, drawing on his dissertation research on community education, set up local NEH programs in all 50 states and every US territory. After 11 years he left to form his own public policy consulting firm, Oliver Associates. The firm's work in public education programs is grounded in a concept Oliver discovered late in his NEH career: study circles.

These small discussion groups—no fewer than five people, no more than 20-meet regularly, like a book club, for three to six sessions of two to three hours, often to explore a critical social issue. The idea is that people can overcome their lack of information and feelings of inadequacy in the face of complex problems by formulating their own ideas and sharing them with others. There are more than 300,000 study circles in Sweden, where Oliver first encountered them on a trip for the Kettering Foundation. He subsequently visited the country 12 times, enjoying both the soccer and the circles.

Oliver's 1987 book, Study Circles: Coming Together for Personal Growth and Social Change (Seven Locks Press), helped introduce the idea in the United

States, and he played a role in the founding of the Study Circle Resource Center, now known as Everyday Democracy. Founded in 1989, the organization initially focused on building community dialogue as an end in itself. It now works more specifically on finding solutions to pressing social problems.

Meanwhile, Oliver never strayed far from soccer. As his daughters, Erika and Britt-Karin, grew up, he coached their teams and found that his counterparts could use some coaching themselves. So, on top of his day job at his consulting firm, Oliver started training soccer coaches.

Traditional instruction involved a lot of lecturing and PowerPoint presentations-methods they brought back to leading their teams. But Oliver preferred to have his trainees get involved: to ask questions, participate in drills, keep moving. In turn, he expected them to do the same with their players. "That's an adult education principle," he says. "Involve the student in his or her own learning."

He eventually became director of coaching for the DC Stoddert Soccer organization, which has more than 5,000 youth players.

Oliver is now retired from that post. Neither age nor his concussions have affected his mental sharpness. He holds season tickets for DC United games, where he's always running into former students and players. His two grandchildren play soccer and call him Coach. "I just melt," he says. "I'd rather be called Coach than Dr."

And he's taken up writing—about coaching techniques as well as his own long soccer story—for the Society for American Soccer History. It's one more thread leading back to his UChicago days. "I'll tell you," he says, in "everything I've done since ... I've applied concepts that I learned out there in graduate school." ◆

MILESTONES

1951, 1953 Wins national championships in soccer with Temple University 1964 Earns a spot on the US Olympic team, though the United States does not end up qualifying for the games in Tokyo

cation from the University of Chicago **1971** Joins the National Endowment for the Humanities 1983 Forms Oliver Associates, a consulting firm 1987 Publishes Study 1970 Earns his PhD in edu- Circles: Coming Together

for Personal Growth and Social Change 1996 Inducted into the National Soccer Hall of Fame 2016 Announces he will donate his brain posthumously for concussion research

TOGETHER IN SPIRIT

How the University is responding to the COVID-19 pandemic.

BY LAURA DEMANSKI, AM'94

s a novel coronavirus fanned out around the world this past winter, life changed quickly everywhere it touched. The University of Chicago community worked fast to adapt its work to a new world and affirm the institution's mission—unchanged in past world crises, and so too in the face of this pandemic.

March and April, when this issue was being prepared, saw the earliest of the adjustments. On March 12 the president and provost announced that Spring Quarter classes would be held remotely. (A decision about Autumn Quarter classes will be announced by the end of June.)

For Spring Quarter, students with travel restrictions or other extenuating circumstances had the option to remain in University housing. About 125 students stayed on campus, living in Max Palevsky Residential Commons and getting take-out meals from Baker Dining Commons and the Maroon Market. Others departed the residence halls by March 22, to meet again when the new quarter began in hundreds of Zoom rooms.

In April the University announced that the 533rd Convocation ceremonies, scheduled for June 13, will be held online. The University will confer degrees at the virtual event and celebrate the achievements of the Class of 2020. Graduates will receive their diplomas by mail, and everyone in this year's class will be invited to participate fully in the 534th Convocation, planned for June 2021 on campus.

As the University of Chicago Medicine prepared for COVID-19 patients, it quickly got several coronavirus studies off the ground. Across the disciplines, faculty members shifted research agendas to better understand the social, economic, psychological, environmental, and other dimensions of the pandemic—and one also worked to beautify Twitter. Classes carried on remotely, with teachers and students alike finding creative ways to forge an intellectual community from their far-flung locations.

Turn the page for more on these institutional and individual responses to an extraordinary challenge to higher education and all of us. In upcoming issues, we'll delve deeper into some of the ways members of the UChicago community—faculty, students, alumni, and friends around the globe—are contributing to helping end the pandemic and address its repercussions. •



FOR THE LATEST UCHICAGO COVID-19 NEWS, VISIT CORONAVIRUSUPDATES .UCHICAGO.EDU.



MEDICINE

READY, SET, GO

Inside a February planning meeting for COVID-19 and the early days of UChicago Medicine's response.

BY SUSIE ALLEN, AB'09, AND LAURA DEMANSKI, AM'94

n February 3, weeks before COVID-19 began to dominate US headlines, leaders at UChicago Medicine were preparing for the battle ahead. Seated around a large boardroom table in the Center for Care and Discovery were more than 20 representatives from across the medical center. Doctors with different specialties sat alongside delegates from legal, communications, and logistics.

The meetings are one component of HICS, the Hospital Incident Command System, an emergency response protocol used by many American hospitals. Krista Curell, vice president of risk management and the medical center's designated incident commander for COVID-19, is heading up UChicago Medicine's response to the outbreak, along with the hospital's chief epidemiologist, Emily Landon. Even on this Monday morning, with confirmed US cases still under a dozen, they know there is little time to waste.

The medical center has updated its computerized medical record system, prompting doctors and nurses to ask patients about their travel history. Medical staff have also received a refresher on how to correctly "don" and "doff," in hospital lingo, personal

protective equipment (PPE), such as gowns and face shields.

Curell starts the agenda with Landon, who runs down the latest updates from the Centers for Disease Control and Prevention on testing and travel restrictions. (She will later make national news for her persuasive way of explaining the need for social distancing at a March press conference called by Illinois governor J. B. Pritzker: "It's really hard to feel like you're saving the world when you're watching Netflix from your couch. But if we do this right-nothing happens.") Curell then continues around the table, stopping at legal, human resources, supply chain, clinical operations, and communications leaders for updates.

Curell and Landon linger on logistics. One update prompts a cheer: they've tested the emergency department's ventilation system and it's working beautifully. Right now, logistics reps say, they've got an adequate supply of PPE and the Chinese-produced medications they need. They might need to seek new suppliers, "if this has a long tail."

"This will have a long tail," Landon says quietly.

Thanks to a long-standing partnership between the Pritzker School of Medicine and Wuhan University School of Medicine, Landon and her colleagues have firsthand insights into the accelerating pandemic. They've heard from their Chinese counterparts that CT scans may be especially useful in diagnosing the new respiratory illness.

With the hospital's CT scanners working nearly at capacity already, the representative from radiology wonders aloud whether it would be possible to set up a mobile CT scanner in a trailer. Curell says it's something to think about. They'll have to figure out where to place the trailer—and where to plug it in.

The rest of the meeting is taken up with miscellaneous questions: Will patients be referred to UChicago Medicine from other hospitals? (Hospital leaders will take guidance from the Chicago Department of Public Health on that, Landon replies.) Are the cough-andsneeze stations throughout the medical campus well stocked with tissues, hand sanitizer, and masks? (Yes.) With a nasty flu season already underway, does anyone need Tamiflu? (Chuckles.)

Today's session-they'll reconvene next week and later switch to daily meetings as the pandemic worsensconcludes with a discussion of staff, and how best to keep them safe. Landon offers an impromptu call to arms: "It may feel new and feel scary but is no scarier than the things we see every day. Everyone is trained. They are experts in how to do this already. They just need the courage and confidence to do it."



Ventilation helmets, like the one shown here, are among the tools UChicago Medicine doctors use to keep as many COVID-19 patients as possible off mechanical ventilators.

welve weeks later, the hypotheticals discussed in February had turned into real life at UChicago Medicine. Cook County was nearing 30,000 COVID-19 cases and had exceeded 1.200 deaths from the virus. Thanks to the ongoing planning in HICS meetings, the breadth of experts and resources available at a major research university and its hospital, and a number of strategic innovations by researchers and health care providers, UChicago Medicine was weathering the storm. Doctors were able to treat and discharge hundreds of patients with severe cases of COVID-19, and in many instances avoid the most invasive and potentially harmful measures.

After hearing reports from Wuhan, China, and Italy early in 2020, UChicago Medicine personnel thought of Jaws, said Thomas Spiegel, medical director of the emergency department, in an April 23 Facebook live chat: "We're going to need a bigger boat." They designated two floors of the Center for Care and Discovery as COVID-19 only and converted a large space near the emergency department, adding 80 chairs there to see patients with less-serious medical needs. The hospital also flipped its ambulance bay into another treatment area and developed special "cohort" units to cluster patients with confirmed cases of the virus and other units for those with suspected infections.

Meanwhile, additional spaces within the hospital were identified for backup beds, and the hospital worked to ensure needed infrastructure such as sufficient electrical power and the ability to pump in enough oxygen. The supply chain team worked around the clock to get shipments of masks, gloves, and gowns-even partnering with local 3D printers to make hard-to-find face shields. The medical center began curbside testing clinics, working with community partners to test hundreds of people a day for the SARS-CoV-2 virus.

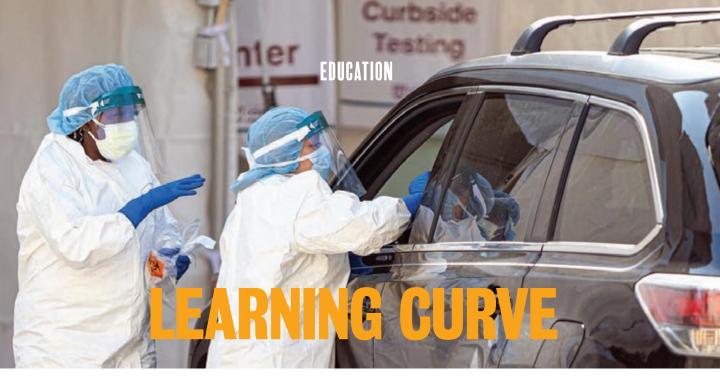
"Prevent the vent" became the watchword for the health system's clinicians, who took a number of measures to keep their most critically ill patients off mechanical ventilators as early studies linked the devices' use in COVID-19 care to high mortality. UChicago Medicine was among few US institutions in the pandemic's early stages to use ventilation helmets. These fit comfortably over a patient's head, have an airtight seal around the neck, and help patients breathe without the need for a mask, breathing tube, or sedation. The helmets, more commonly used in other countries including Italy, were already familiar to some UChicago Medicine doctors; back in 2016 pulmonologists John P. Kress and Bhakti Patel published

a National Institutes of Health study showing the devices reduced time in intensive care and increased survival.

Another noninvasive tactic that was proving effective was the use of highflow nasal cannulas, which sit below the nose and deliver a large dose of warm, humidified oxygen to the nose and lungs, but without stretching the lungs like mechanical ventilation, said Michael O'Connor, AB'83, MD'87, director of critical care medicine. In April the cannulas became another cornerstone of the medical center's COVID-19 treatment, keeping many patients in respiratory distress off ventilators. In a group of dozens of emergency department patients given cannulas—many also positioned on their stomachs to aid breathing-only one eventually required intubation.

While UChicago Medicine's clinicians were identifying ways to better treat the sickest patients on the ground, numerous studies to help understand the novel coronavirus were underway. Faculty from many specializations were able to use samples from UChicago Medicine patients for research to identify promising antivirals, antibodies and vaccines, and ways to combat the hyperimmune response that endangers some patients. One widely reported trial was identifying blood donors among recovered patients in Chicago to study whether their plasma could help treat hospitalized ones. Still in its earliest phase at press time, the study focused on establishing safe and feasible ways to identify donors, collect donations, and administer transfusions. Additional trials will be needed to see if such treatments are effective.

As May approached, understanding of the virus was still in its infancy and the questions facing researchers-in Hyde Park and the world over-were countless. But early planning and widespread social distancing measures had helped fend off a debilitating crush of cases at UChicago Medicine, bettered the outcomes for many patients, and provided a measure of time and space for clinicians and researchers to tackle COVID-19's mysteries. ◆



Pritzker School of Medicine students add COVID-19 to their studies.

BY SUSIE ALLEN, AB'09

ince December, when a mysterious disease began circulating through China's Hubei province, doctors around the world have received a crash course in preventing and treating the new virus. In March and April UChicago Medicine physicians on the front line began sharing what they'd learned about COVID-19 with some of their students and soon-to-be colleagues.

Lesson one: uncertainty is the only constant. "This thing is changing by the week, and could change 48 hours from now," infectious diseases fellow **Greg Olson** told 110 or so Pritzker School of Medicine students assembled via Zoom. On his shared computer screen was a flowchart of UChicago Medicine's treatment protocol for COVID-19 patients-very much, he emphasized, a work in progress. Within and across hospitals, "there is no standard regimen" for treating the disease.

Olson was a guest speaker for MEDC 30450, The COVID-19 Pandemic: Perspectives from the Forefront. The course was spearheaded by Jeanne Farnan, AB'98, MD'02, a hospitalist and director of clinical skills education at Pritzker.

The three-week elective was aimed at giving third- and fourth-year students-many of whom will soon be caring for COVID-19 patients themselves—an overview of the disease.

The speakers were experts in areas including ethics, epidemiology, virology, medical history, and public health, but all acknowledged that where this virus is concerned, no one is an expert yet. The list of what we don't know, they told students, is long: the fatality rate of COVID-19 (Maggie Collison, infectious diseases fellow); how many people may have died at home from the disease (Katherine Thompson, MD'05, geriatrics); how to approach conversations about do-not-resuscitate orders (Will Parker, MD'12, SM'18, pulmonology); if and for how long you have immunity after being infected (Stephen Weber, epidemiology); and how to reduce disparities in who gets sick (Harold **Pollack**, School of Social Service Administration).

Yet even in a situation where so much is up in the air, the fundamentals of caring for patients haven't changed. Thompson reminded students of all the small ways they can help their older patients stay healthy. Help keep them supplied with 90 days' worth of needed medications. Simplify dosing regimens where you can. Teach easy atWhen they spoke to Pritzker School of Medicine students in April, physicians on the front lines noted that testing was central to their efforts to combat the COVID-19 pandemic. UChicago Medicine worked quickly to create curbside testing operations, like the one in Hyde Park shown here, at several of its locations.

home exercises that reduce their risk of falling. When communicating with patients and families, don't overload them with information. "It's a lot of getting creative about making things as simple as possible," she said.

Fortunately the medical community is constantly discovering more about the virus. "We're at a steep part of our learning curve," Weber said. "In the next six to eight weeks we may know twice as much." Collison told the students she'd been relying on medical librarians for help in keeping track of all the new COVID-19 journal articles. "There's so much coming out every day," she said. "It feels like every hour." When it comes to treatments, she noted that findings are preliminary and studies hastily designed, but the insights are nonetheless significant: at the time she spoke to the students, the AIDS drug lopinavir and the malaria drug hydroxychloroquine didn't seem to be having much effect, but the antiviral remdesivir was showing promise.

WE HAVE THE
PARTICULAR
PRIVILEGE, I THINK,
OF BEING THE CLASS
THAT GRADUATED
AMIDST THIS
STRUGGLE. A LOT OF
PEOPLE ARE GOING
TO BE LOOKING
TO US TO BE THE
REINFORCEMENTS.

Mindy Schwartz, an internist and medical historian, used her session to remind students that the past holds lessons too. In an overview of the 1918 flu pandemic, she highlighted the importance of non-pharmaceutical interventions, which made "a huge difference" in that pandemic's trajectory. Some are familiar to us today: closing schools, banning large gatherings, and requiring cloth face coverings in

public. For areas of the country that didn't take these measures, there were grim consequences. Philadelphia, which held a large parade at the height of the outbreak, had a much higher death rate than St. Louis, which took swifter and more stringent action.

Whether the United States as a whole will look more like Philadelphia or St. Louis is still unknown. But inside UChicago Medicine, it's St. Louis. "Very early on it became clear that social distancing was going to become necessary for this pandemic," said Weber, chief medical officer and an infectious diseases doctor. The medical center took action before the US outbreak to reduce disease transmission among health care workers: changing the layout of work areas, eliminating large in-person team meetings, limiting the number of providers in patient rooms, shifting to televisits when possible.

Some decisions long predated the current crisis. At the Center for Care and Discovery, entire floors can be transformed into negative-pressure areas, which limit germs' ability to escape patient rooms. These were features Weber and his colleagues asked for more than a decade ago, during the hospital's design phase, hoping they'd never need them.

These measures have kept UChicago Medicine's health care workers comparatively safe—benefiting both them and the people they care for. "You have to think about your next patient," course organizer Farnan chimed in.

"Or the next 10, or the next 15," Olson agreed. It's those next patients that Pritzker students are preparing for. "We have the particular privilege, I think, of being the class that graduated amidst this struggle," says **Ty Johnson**, a fourthyear. "A lot of people are going to be looking to us to be the reinforcements."

There's plenty that can't be foreseen with certainty in the pandemic, but the students feel they're getting the skills to face the unknown. "Even though the situation is unprecedented, Pritzker does a good job incorporating critical thinking and on-the-go decision-making, and that will really help us as we enter the workforce," says fourth-year **Lucy Xu**.

"It's definitely daunting to think about starting residency in the middle of a pandemic," adds fourth-year **Kathryn Nutting**. "But I became a doctor to help people when they needed help, and that's what they need right now." ◆

RESEARCH



QUICK **THINKING**

Researchers across UChicago were fast out of the gate this spring with data, ideas, and guidance for a COVID-19 world.

> Learn more about their views at mag.uchicago.edu/quickthinking.



The challenge now is to identify measures that could provide as good or better protection, with less social cost.-Sarah Cobey, **Department of Ecology and Evolution**

In an era of pandemics, everyone's access to health care very much affects everyone else. Someone getting sick increases the possibility of other people getting sick—and one's use of health care resources may reduce the resources available for other people.—Katherine Baicker, Harris Public Policy

I think that the government's challenges are going to become more acute as we turn towards not just the efforts to shutter an economy, but to responsibly open it up.-William Howell, **Department of Political Science**

People are so cooped up inside, getting the mental break outside is going to be important. But we have to maintain distancing. Are there organized ways we could do that?-Marc Berman, Department of Psychology

By using machine learning and artificial intelligence methods to screen for drugs across multiple target proteins in the virus, we may have a better pathway to an antiviral drug.—Arvind Ramanathan, **Argonne National Laboratory**

What every natural disaster does, like Katrina, what every economic downturn does, what every emergent situation does is disproportionately impact the most vulnerable among us who are just scraping by day to day.-Monica Peek, SM'15, UChicago Medicine

Think about the people in your building. Do you know all their general age ranges? If not, who might know? And not just age, but other factors that might make them vulnerable. Are there ways to develop mechanisms to stay connected?—Kathleen Cagney, AM'90, Department of Sociology

The attempt is to keep the economy in a kind of coma-in suspended animation—so it can be woken up as soon as the pandemic is behind us.-Raghuram Rajan, Chicago Booth



DIVERSIONS

BEAUTIFUL SOMETHINGS

On Twitter, a historian interrupts bad news with beauty.

BY LAURA DEMANSKI, AM'94

n anxious times, social media might be the last place you look for comfort and joy. During the COVID-19 pandemic, **Ada Palmer**, associate professor of history, has changed that with her #SomethingBeautiful campaign on Twitter.

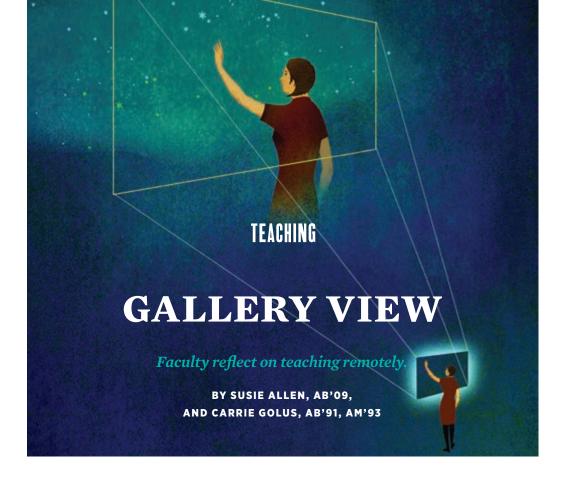
She launched it on March 12 with this tweet: "Twitter is a valuable crisis news source, but the stream of terribleness is hard on morale, and keeping up our energy is vital too. So every hour on the hour I'm going to post #SomethingBeautiful to break up the stream w/ moments of rest & recovery. (Others, please join me!)"

Inspired by an account that tweeted a bird every hour without further elaboration, Palmer's was a simple concept: invite people to tweet standouts from their photo files, and in this way populate our feeds with beauty—however one defines that. The project, Palmer said at an April online event, uncovered "a diasporic yet interconnected community of people eager to take delight in things."

The hundreds of images now circulating under her hashtag find beauty in many things—gardens, clouds, goslings, graffiti, chipping paint—but Palmer herself has largely drawn on her collection of photos from museums, archives, and historical sites where her research on the Renaissance is focused. Here we share a few of her images, or beauty in the eye of the historian. ◆

Clockwise from top left: History PhD student Alexandra Peters, AB'14, AM'16, spots a giraffe in the background of a 1575 engraving in the Smart Museum of Art. Spoils from a farmer's market trip with students studying abroad in Florence, Italy. Giant riding fish in the Marine World Carousel in Nantes, France. Imagined portrait of Cicero in a Renaissance manuscript, c. 1400, in UChicago's Special Collections Research Center. The Avenue of One Hundred Fountains, gravity-powered Renaissance waterworks at the Villa d'Este in Tivoli, Italy.





ow do you deliver a University of Chicago education remotely? Faculty members had little time to contemplate the question as they prepared for a socially distanced Spring Quarter. Some were already familiar with the University's videoconferencing software, Zoom, and its features: breakout rooms for small group discussion, a chat sidebar, virtual hand raising, screen sharing, goofy backgrounds. Others found themselves learning new skills.

These interviews, conducted by phone, email, or Zoom throughout March and April, have been edited and condensed.

How did you react when you heard classes would be remote?

Jeanne Farnan, AB'98, MD'02 (Pritzker School of Medicine) I was on service seeing patients in the hospital while trying to plan for curriculum changes that had to happen. One of our guiding principles

was to ensure we didn't have to extend anyone's medical education.

Marco Garrido (Department of Sociology) I was dismayed. My teaching style relies heavily on face-to-face inclassroom dynamics.

Joel Isaac (John U. Nef Committee on Social Thought) Disappointment! I was regretful that the form of teaching I cherish, which makes UChicago so special-intensive face-to-face seminars in one of the University's characterful gothic buildings-would not be possible. But we have no choice. I am trying to be a happy warrior.

Joan Neal (Law School) I was both saddened and felt a bit of panic.

Robert Shimer (Griffin Department of Economics) I was clued into this a bit earlier than many people, having decided to hold off on a planned trip to China. Moving to online seemed likely from the beginning of March, maybe February.

Ram Shivakumar, SM'97 (Chicago Booth)

There was a fair amount of trepidation because I have thrived in classrooms where I see people. I can change what I say and how I act and react, based on my reading of people and their body language. I'm sure students have their own fears and concerns. They signed up for A, but they're getting B.

Did you have Zoom training?

Garrido I attended a Zoom training session and read the literature put out by the administration. Biggest surprise? It's not so hard. After my second class, a student emailed to congratulate me for "Zooming like a pro."

How are you feeling now that classes have started?

Garrido The students aren't laughing at my jokes as much, but maybe that's because they're on mute.

In any case, it feels good to be teaching. There's something therapeutic about taking an hour and a half to really dig into ideas. It feels a bit like a break from, and maybe also a protest against, being in crisis mode.

Shimer We have two different challenges. One is online learning. The other is all the distractions students face.

Shivakumar If there has been a surprise, it is that students have been very engaged. During case study discussions, I let students talk one at a time. I had 37 different people talk last week.

What has been the hardest thing to adapt?

Farnan The big challenge is third-year medical students, who would typically be doing clerkships. In March we removed them from the clinical wards because of concerns about COVID-19 exposure. Now it's going to be a matter of figuring out when we can safely return them to the clinical environment.

Neal I teach small classes. I worry about whether we'll be able to build the same sense of community. Some things-namely relationships-are just better in person.

Shivakumar In the evening program I teach in, the students are working professionals. They come to class at 6 p.m., and here they are for three hours. They're tired, so you've got to work hard to keep them interested.

Has the pandemic affected your course content?

Farnan Third- and fourth-year medical students are going to participate in a three-week COVID-19 learning module going through the virology, clinical presentation, treatment, ethics, and policy implications of the disease (see "Learning Curve," page 30).

Shimer Dynamic Economic Modeling is concerned with both long-run growth and business cycle issues. I can't teach that class and pretend we live in 2019.

Are there any advantages to remote teaching?

Vineet Arora, AM'03 (Pritzker School of Medicine) In a Zoom with our biomedical librarians, I noticed more interaction since the chat function lowered the bar to ask questions.

Fred Donner (Department of Near Eastern Languages and Civilizations) I think about what it would have been like if this had happened 20 years ago, when we didn't have Skype, Zoom, FaceTime, WhatsApp. We're very lucky in the sense that we have this technological capacity.

Shimer When you're forced to rethink everything, you start experimenting.

Zoom has a "share screen" feature. Imagine you're doing something that involves coding. It would be easy for any student to display their solution and talk through the argument about their solution. It might be that the students are reluctant to do that-being called out. It might be a disaster, but it could be really good.

Shivakumar It's possible now to have expert practitioners who are not in Chicago share their views with students. You can bring in people who have something of real value to say, and have them speak for 20 minutes. You may not want to ask a CEO for an hour, but maybe they'll have 20 minutes. I have several people in mind. Let's see what they say.

What are you doing that other faculty should know about?

Arora If at all possible, consider having a second person (a TA or another faculty member) monitoring the chat and helping field questions, so you can continue to lecture and then pause to see how the chat is going.

Isaac I'm combining synchronous and asynchronous teaching. I want to convene the class weekly, but expecting a three-hour seminar on Zoom to go off without a hitch is unrealistic.

Ada Palmer (Department of History) I can say there will be a live class discussion at a certain time. And if you can't make the Zoom meeting, the written discussion board is fine. That way, the student who finds the video hard to use can use text, the student who finds text hard can use video. The student whose family's internet package isn't robust enough has a backup plan. It's predesigned to have flexibility.

Something I've always done in my classes is to structure the class participation component so if you didn't talk in class, but before the next class you email me a paragraph of what you were thinking, then I'll give you full credit.

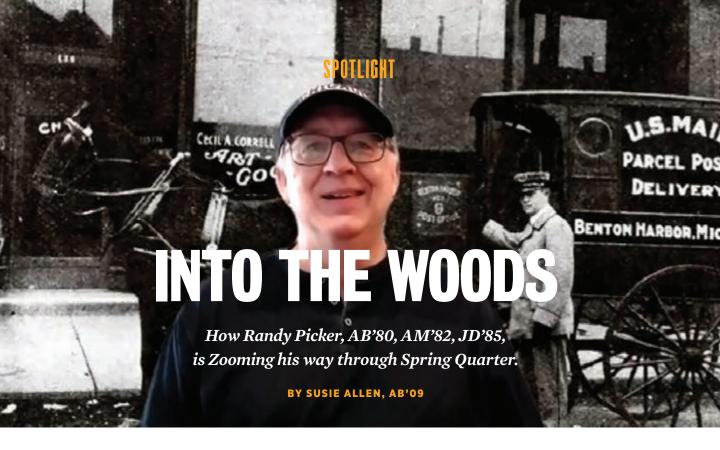
A student who has an anxiety disorder or is on the autism spectrum can use this accommodation. But so can the student who had a sore throat. The student who pulled an all-nighter. The students who were talked over by someone who was hyperexcited and wouldn't let anybody else talk. Every student benefits from having multiple options. That's even more important as we transition to remote learning.

Will there be any lasting changes to teaching, at **UChicago or elsewhere?**

Donner A lot depends on the nature of the university. For the University of Chicago, the classroom experience and the sense of being a part of a cohort is invaluable.

My wife teaches at San Francisco State University. A great number of their students are older, they're working, they have families. To attend classes, they have to commute from sometimes an hour and a half away. For them, distance learning is great. On the other hand, they miss seeing the other students. I don't think anything will replace in-person teaching, but distance learning may partially replace it for some places. •





andy Picker is no stranger to on-camera teaching. In 2015 Picker, AB'80, AM'82, JD'85, the James Parker Hall Distinguished Service Professor of Law, became the first professor at the Law School to teach a massive open online course, or MOOC. It took him about a year to prepare—and 40 hours to film-Internet Giants: The Law and Economics of Media Platforms.

He didn't have the same luxury of time when the University shifted to remote instruction for Spring Ouarter, so he threw himself into learning Zoom in preparation for his Network Industries class. After the Law School's first week of classes, Picker told the Magazine how things were going so far. His comments have been edited and condensed.

How did you feel about the first week?

I was so nervous about Monday. I haven't been that nervous since I started teaching.

We have worked like hell at the Law School in the last two weeks to try to get ready for this. My private goal last week was to do seven Zoom calls. I did 25 to 30. I organized what I was calling a "teaching barhop," where we would jump from 10-minute call to 10-minute call and see what it was like to be the host and what it was like to be the student.

The first week has gone unbelievably well. It was fabulous to be with the students. They were engaged. I'm lucky-I only have 32 students and we can have a conversation.

I'm still learning about how to use the technology. Yesterday in class-and I hadn't done this before—I toggled between the Brady Bunch gallery view and the active speaker view. When I'm talking, I use the gallery view and when I call on students, I put the screen in speaker view.

It sounds like a number of colleagues turned to you for advice.

Honestly, I was thrilled with how my classes went this week, but I was more thrilled with how classes went for two of my senior colleagues, who I was playing IT guy for-those classes went off well. One student said, "Yeah, that class was seamless."

You try to figure out, what's the least you can learn to run this system, and for lots of people, they don't need a lot of stuff.

Any hiccups?

A student was asking a question, and I started to drink out of a Diet Coke can, and I held it while he was asking the question. He thought I had frozen.

That could be the new prank of the Zoom age-pretending to freeze.

That's true!

How is teaching through Zoom different from a prerecorded MOOC?

With a MOOC, it's like being on stage. You've got all the bright lights. You can't really see what's going on. You've got four production people in the room. You have no sense of what's going on with the viewers.

Here, I can see the room. We're doing it together. When I say something funny, I can see them laugh. I can't hear them laugh—they're on mute but I can see them laugh. I can see exactly what they're getting and what they're not getting.

This proverbial thing that happens in a physical classroom where you can really see the light bulb go off, that really does happen. You can see someone transform from not understanding to understanding.

Have you used any Zoom backgrounds?

On Wednesday we had "coffee mess," which is a morning get-together with students and faculty. Last week a few people used some doughnut backgrounds. Those were great. I went with an Eggo background.

Wednesday was also the 44th anniversary of the founding of Apple Computers, and so in class I popped up the original Apple partnership agreement as my Zoom background initially.

I'm very much into the historical part of my course where we talk about the post office. The other day I used a photo of a horse and carriage from the start of parcel post in 1913 as my background at the beginning of class. I'm using those as a fun "let's get started" kind of thing.

If you were to give a pep talk to a colleague about to start their first online course, what would you say?

Take a breath. We're all going to make some adjustments, so let's not sweat the small stuff. We need to deliver a University of Chicago education, and I think we can do that using these technologies. It will not be exactly the same thing as being together, and we should miss that every day, but we can do our jobs here. •



The University reaches out to help the surrounding neighborhoods.

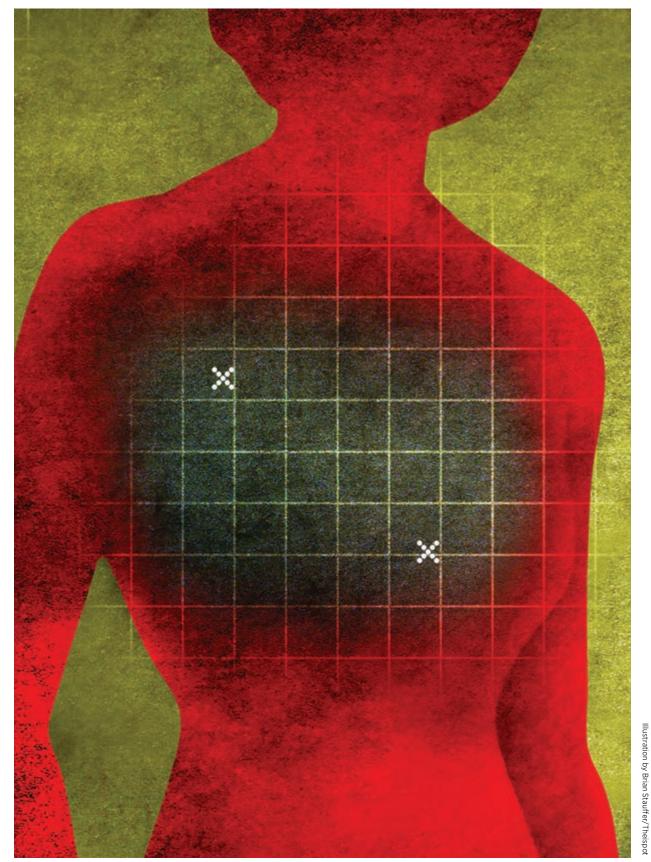
BY LAURA DEMANSKI, AM'94

n the largely African American communities neighboring the University, the COVID-19 pandemic is taking an especially high toll. The disease is disproportionately affecting urban minority populations, and so are the economic repercussions. On March 30 the University launched three initiatives to extend quick support at a time of distress in these neighborhoods.

To help ensure food security on the South Side, the University partnered with the Greater Chicago Food Depository to prepare meals in its unused dining facilities, making an average of 3,000 breakfasts, lunches, and dinners per day for distribution at more than a dozen sites across the area through mid-June.

A second initiative is helping small businesses on the South Side, providing more than \$800,000 in emergency bridge grants, as well as rent relief and operating grants to businesses that are University tenants. As of late April, 182 bridge grants had been given in collaboration with the Chicago Bears and Bears Care, the football team's charitable arm, to help local businesses of all kinds with general operating expenses and direct support for affected employees. Eighteen tenant businesses had received rent relief and additional aid from the University.

Third, UChicago awarded \$400,000 in grants to 79 community-based nonprofits to cover general operating costs or expenses associated with moving their programming online. The Office of Civic Engagement's Community Programs Accelerator is also providing its nonprofit partners with online meetings, one-on-one consulting, and advice on local and federal resources from which they can seek additional help. •



MEDICAL PHYSICS

IMAGE OF HEALTH

Professor and entrepreneur Maryellen Giger, PhD'85, brings computer-aided breast cancer detection and diagnosis from bench to bedside.

BY MAUREEN SEARCY

nyone who has undergone cancer screening knows the uncertainty and difficulty-financial, logistical, and emotional-of the process. Every year, I spend an anxious week repeatedly logging into a patient portal looking for test results from my routine mammograms. Decades ago, when I had a diagnostic mammogram for an ultimately benign lump, negative results came as a nondescript postcard in the mail. Yet both portal and postcard are preferable to the dreaded phone call—what many patients receive when the scan isn't definitively negative,

Definitive can be hard to come by. Sometimes dense tissue makes it difficult to see the entire breast. Sometimes the mammogram reveals a suspicious area that warrants a closer look. In these cases, the physician will order additional testing, to get a clearer image or to diagnose what the first test detected-more mammograms, an ultrasound,

and they have to come back.

or an MRI. The extra imaging helps figure out if there are hidden masses and whether they're likely to be cancerous. A patient might then undergo a biopsy. If it confirms cancer, more imaging might be used to evaluate the extent of the cancer, plan treatment, or assess response to treatment in lieu of repeated biopsies. With better breast imaging, radiologists could find, classify, or rule out cancer sooner—reducing anxiety, medical risk, and costs for millions of patients.

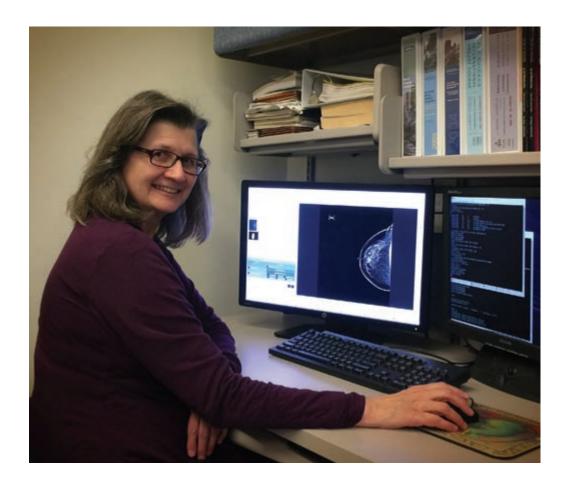
This is the goal that drives the work of medical physicist Maryellen Giger, PhD'85. Giger, the A. N. Pritzker Professor of Radiology, the Committee on Medical Physics, and the College, is a pioneer of artificial intelligence (AI) in cancer imaging. For decades she and her fellow medical physicists have been developing artificial neural networks to join forces with old-fashioned human

> intelligence in the cause of revolutionizing radiological imaging and analysis.

> Imaging is crucial—first to screen for potential cancer and then to help diagnose what's found. Each of these steps depends on a different type of radiological picture, and each is only as good as those pictures. How clear and complete are they? How noticeable do they render abnormal areas? The technology is continually advancing,

from the earliest X-rays—created accidentally by shooting electricity through a vacuum inside a glass tube-to ultradetailed MRIs that require no contrast agents in development here at UChicago.

IMAGING IS CRUCIAL—FIRST DIAGNOSE



Once the images have been captured, they need to be interpreted. This is where Giger's work comes in. Right now, medical images are mainly read by radiologists, whose work is as much art as science. Over their careers, they learn that this kind of spot is usually a cyst, while that kind of spot is often a tumor. And they learn that a tumor that looks like this usually ends up being benign, while one that looks like that is probably malignant. These are qualitative judgments.

But a digital image holds more information than even the most experienced human eye can appreciate. Exactly how irregular-quantitatively-are the margins of that tumor? What's the actual volume of that mass? A human radiologist can estimate, but a computer can calculate. Artificial intelligence algorithms can reveal and analyze such hidden data, supporting the radiologist's initial evaluation and helping the clinician make decisions. This assistance could do wonders, potentially reducing the number of false negatives (missed signs of cancer), false positives (harmless areas deemed suspicious), and unnecessary biopsies. But someone needs to teach the AI how to see and what to look for.

iger sketches out her research plans on a notepad at her desk in the radiology department at UChicago Medicine, during one of her respites from traveling this past winter. She has just returned from San Francisco, after being in Washington, DC, the week prior, and will be heading to Houston the week after for conferences in medical imaging and optics.

She starts at the beginning, explaining the difference between detection (screening) and diagnosis using the Where's Waldo? books. "Detection is finding things red-and-white striped. Diagnosis is saying the red-and-white thing is Waldo." Now imagine a thousand-page book—each page an X-ray, ultrasound, or MRI-and Waldo's cancerous presence is on only four pages. The American Cancer Society estimates 279,100 new cases of breast cancer will be found in 2020, so that's like searching 70 million pages for the concealed character.

But if a computer, through artificial intelligence, can be trained both to spot stripes and then to decide if they're an umbrella, a beach towel, or in fact Waldo, radiologists can catch and clinicians can treat disease earlier. This is what Giger has been working on for over 30 years.

Since the beginning of her career, Maryellen Giger, PhD'85, has worked to use artificial intelligence for more accurate interpretation of medical images.

> Giger's research is built on computer vision, a field of AI that trains computers to "see"-to identify, interpret, classify, and then react to visual images. That includes photographs and videos, and in Giger's case, radiographs and other medical images such as MRIs and CTs.

> Studying physics, math, and health science as an undergraduate at Benedictine University, Giger spent summers at Fermi National Accelerator Lab-

oratory. She was drawn to medical physics, which uses physics and math to understand biomedical processes and diagnose and treat diseases. A career in medical physics, she thought, had the potential to affect society in her lifetime.

Medical physicists usually pursue either imaging science or radiation therapy. Giger chose imaging because she's always relished analytical challenges. When she was a medical physics graduate student at UChicago in the early 1980s, radiology was transitioning from Xray screen-film radiography (similar to photographic film) to digital imaging. She worked on basic properties in digital radiography, like pixel size, resolution, and image noise. This work is the

basis of quantitative imaging: extracting quantifiable characteristics from images to help assess the nature of what's being shown.

In the 1980s and '90s, Giger collaborated with other radiologists and imaging scientists in the Department of Radiology to establish the field of computer-aided detection. CAD is AI that uses computer vision to review medical images, providing a second set of "eyes"-a second opinion as an aid to the radiologist. Giger's team formulated concepts and designed algorithms using machine learning, which includes systems that learn from data (large, anonymized sets of tumor images from diverse populations), identify patterns, and make

decisions with minimal human intervention.

To train such systems, scientists must use medical images that are already confirmed by pathology to be cancerous or not. These are converted into minable data: calculations of features like size, shape, or texture. Such metrics are correlated with cancer presence and progression, determined through clinical documentation or molecular and genomic testing. The study of

> the relationship between these computer-extracted features (i.e., radiomics) and the diseases they signify can be used in cancer discovery-adding to the foundational knowledge needed to advance cancer diagnosis, treatment, and prevention.

> The machine learns from these relationships the way radiologists learn their craft: for instance, a digital image that shows a smooth oval lump is usually benign, and two successive images that show a measurable decrease in tumor size may mean a treatment is working.

> CAD can be developed for use on X-ray, magnetic resonance, and ultrasound images, and not necessarily just for breast cancer. Giger has spent most of her research time on breast cancer imag-

ing, but her projects have involved other types of cancer, including lung, prostate, and thyroid.

GIGER'S RESEARCH

> reast cancer will cause an estimated 42,690 deaths in 2020 according to the American Cancer Society. That's not a trivial number, but with earlier detection and better treatment options the mortality rate has declined over the past 30 years. For women, who have 99 percent of the cases, deaths are down 40 percent. (Lacking sufficient data on trans individuals, the ACS reports statistics and issues guidelines in terms of men and women.)

Deep learning networks are part of the story of that decline. Emerging in the early 1990s, they enabled computers to learn directly from image data without human direction. At the time, Giger and colleagues were using the early technology to develop the first version of computer-aided detection (now called CADe to distinguish from computer-aided diagnosis, CADx, which came later). The system was initially developed for breast and lung images.

But searching detection mammograms for cancer isn't as simple as scanning a picture for red-and-white stripes. X-rays are gray scale, after all. And of the nearly 40 million mammograms performed in the United States each year, about half show dense breast tissue, which can

both increase breast cancer risk and obscure small masses, making them harder to see with the naked eve.

Giger's lab develops pattern-recognition software that looks for visuals associated with cancer: lighter gray dense areas, possibly with radiating tissue patterns that suggest cancerous masses, and bright white

spots that may be microcalcifications, small calcium deposits that indicate some underlying process happening in the breast. It's sometimes harmless, but sometimes dangerous, like ductal carcinoma in situ, an early-stage cancer that may or may not become invasive. If the algorithm finds these patterns, it can flag questionable regions the radiologist might have missed.

In 1990 Giger, along with two other University of Chicago medical physicists, Kunio Doi, the Ralph W. Gerard Professor Emeritus of Biological Sciences, and Heang-Ping Chan, PhD'81, now a professor of radiology at the University of Michigan, patented their CADe method and system to detect and classify abnormal areas in mammograms and chest radiographs. Several

more patents followed, and soon the patents and software were licensed by a company named R2 Technologies, which translated the research into a commercial product.

It took a few years of further development for R2 to create the first FDA-approved CADe system, called ImageChecker, to assist in the detection of breast cancer on digitized mammograms. By 2016 about 92 percent of breast cancer screening facilities were using a computer-aided detection system like this for mammogram second reads.

CADe is run on mammograms after the radiologist's initial read, like a spellchecker. Having a second human radiologist do a double read, a common practice in Europe, has been shown to decrease the rate of false negatives, but at a high

> cost in money and labor. Computer-aided detection acts as that second reader: in fact, this is where R2 got its name. If the system misses a suspect region that the radiologist already noted, the human's judgment overrides the computer's. But the computer sometimes flags a region that the radiologist might have overlooked. In these

COMMERCIALIZATION **MOVES RESEARCH**

> cases, it's up to the radiologist to decide whether that region should get further attention. CADe is meant to aid human evaluation, not supersede it.

> Early in the development of the CADe algorithm, Giger thought, "We should give this away so that all could benefit." But if scientists made basic research widely available, it might, paradoxically, be less useful. "There would be no economic incentive for a company to make it into a product," she says, to "handle the expense of taking it through FDA and then making it clinically viable." Commercialization moves research from bench to bedside, making it possible for a scientist's ideas and developments to eventually help patients.

> When a product that was initially developed by a UChicago faculty member is licensed, some of

the funds from royalties and other payments are funneled back to the lab to continue the underlying basic research, and some goes to the inventors, the departments, the division, and then to the University's technology transfer enterprise.

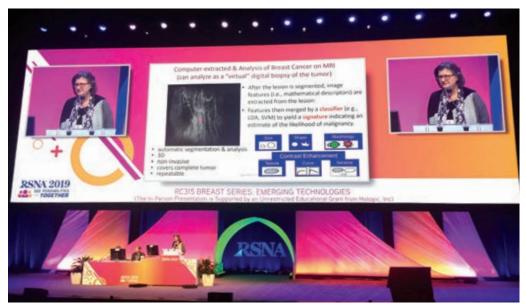
In 1980, the year after Giger came to UChicago, a new law changed how patentable inventions emerging from universities were handled. The Bayh-Dole Act made universities, rather than the federal governmental agencies that funded the work, "the default owner" of those inventions, writes **Eric Ginsburg** in a brief history of tech transfer at UChicago. Ginsburg, the interim director of technology commercialization at the Polsky Center for Entrepreneurship and Innovation, notes that the act also encouraged universities to commercialize and required them to share revenue with the inventors. In the following decade, the number of patents filed by universities quadrupled.

When UChicago created an internal office in 2001 to manage intellectual property and startups, Giger chaired the university committee that proposed its structure, scope, and policies. "We looked at what our peer institutions were doing," she says, "and then developed our own recommendations to create UChicagoTech," which ultimately became part of the Polsky Center.

ast December *TIME* magazine published its list of the 100 best inventions of 2019. One of the 10 selections in health care was a product called QuantX, the first machine-learning-driven system cleared by the FDA that aids in breast cancer diagnosis. QuantX uses CADx to analyze diagnostic breast MRIs and offer radiologists a score related to the likelihood that a tumor is benign or malignant, using AI algorithms developed in Giger's lab. The magazine cover sits on a bookshelf in Giger's office.

It was cleared for market in 2017, when a clinical reader study—a kind of study designed to test the performances of two technologies against each other—showed a 39 percent decrease in missed cancer and a 20 percent improvement in accuracy.

QuantX makes a determination by "extracting" features of tumors revealed by diagnostic MRIs. A radiologist first manually marks the



Giger presented at the 2019 meeting of the Radiological Society of North America and is serving on the organization's recently formed COVID-19 task force.



center of a tumor, telling the system precisely where to look. QuantX then automatically generates a 3D outline of the lesion, providing volume, diameter, and surface area measurements. The machine learning component of QuantX was trained to recognize the relationship between certain features and whether the lesion is cancerous or noncancerous. It looks at lesion size, shape, and other morphology, like whether it has an irregular margin. It also looks at characteristics enhanced by contrast agents used during MRI exams, which reveal information about texture and changes over time. The higher the score, the higher the probability that the tumor is malignant.

Back in her office, Giger starts up an earlier version of QuantX to show it in action. It takes fast computers to train the kind of algorithms within QuantX, but the system itself can run on an ordinary laptop. Magnetic resonance breast images occupy part of the screen; she demonstrates how a radiologist can use crosshairs to designate the center of the mass. The system then automatically outputs volume, diameter, and surface area. "See how fast?" Giger notes. "This was run in real time."

To the right of the image section is a histogram, showing the distribution of tumor types in similar cases to the one being investigated, like an online atlas. Each benign growth is in a green square and each cancer in a red square. She points to a pink arrow showing where the mass in question falls in comparison to the known database. "Computer's suggesting: probably benign."

About 10 percent of women who undergo screening mammography may go on to have diagnostic imaging, but only a few will actually have cancer. QuantX aims to help radiologists find cancerous lesions while identifying women whose tumors are most likely benign, saving some of those women from invasive biopsies.

In Giger's UChicago lab, the prototype workstation that led to QuantX is being investigated to help patients who have been diagnosed with cancer. During treatment, they may receive periodic MRIs that are then run through the workstation as a "virtual biopsy," to evaluate the treatment's progress without needing repeated physical biopsies. When asked whether such a workstation will replace traditional biopsies, Giger says no. "We aim to use a virtual biopsy when an actual biopsy is not practical."

Currently UChicago Medicine and the University of Texas MD Anderson Cancer Center are evaluating QuantX for use in radiology and radiomics research. The automatic segmentation saves time and the system's ability to quantify so many tumor characteristics and output a likelihood score provides useful data for future projects.

QuantX took the first step in its journey from lab to market in the 2009-10 academic year in collaboration with the Polsky Center, UChicago's innovation hub. One of Polsky's accelerator programs is the Edward L. Kaplan, MBA'71, New Venture Challenge-a competition to help startup businesses get off the ground.

After hearing Giger present her work at a Polsky Ideation Workshop in November 2009, The AI-powered medical imaging Giger works on is used as a second set of "eyes," supplementing rather than replacing the judgment of radiologists.

> Brian Luerssen, MBA'11, and James Krocak, MBA'11, teamed up with Giger and Gillian Newstead, former chief of breast imaging at UChicago. They formed a company named Quantitative Insights, which was a finalist in the 2010 New Venture Challenge. (Giger notes that she first entered the competition back in 2004, but during one presentation round everyone was so excited about the science that they ran out of time before discussing the business plan. She didn't make that mistake again.)

> After Quantitative Insights placed in the NVC, it joined the Polsky Incubator, which provides space,

mentorship, and support for growing a sustainable business. E. J. Reedy, senior director of the Polsky Exchange, explains that while the New Venture Challenge is a sprint, the incubator is a marathon, with residency usually lasting a couple of years. Quantitative Insights had "a longer cycle than the typical company,"

says Reedy. It "tends to take a little bit longer for some of the particularly science-based companies to find their footing in the market."

While in the incubator, Quantitative Insights developed QuantX, took it through clinical reader studies, and gained clearance through the FDA's de novo process for first-time technologies with "no legally marketed predicate device." It "graduated" out of Polsky last year when Paragon Biosciences acquired it and created the company Qlarity (pronounced as "clarity") Imaging to continue the commercialization of QuantX.

The FDA approves products for a narrow scope of uses. QuantX was cleared to evaluate MRIs for a tumor's likelihood of being benign or malignant. Olarity's Meg Harrison, the chief operating officer and head of product, says the company wants to develop QuantX to support all types of breast imaging: MRI, ultrasound, mammography, and tomosynthesis. Each of those applications will need its own FDA clearance. The next step will be to

make QuantX work with diagnostic ultrasounds.

While the companies built on Giger's work continue product development, she pushes her research in more directions. QuantX is designed to generate a benign-malignant signature, but the "guts" of Giger's technology can do more. For instance, if different tumor features were weighted differently, that signature might be used to predict risk of recurrence, says Giger. And the imaging big data that underpins CAD can also be applied to develop predictive models, for use in prognosis and therapeutic response.

WHILE THE **COMPANIES BUILT** ON GIGER'S WORK DEVELOPMENT **RESEARCH IN MORE** DIRECTIONS.

Currently Giger is looking at several lung diseases using low dose CT scans. (Breast cancer is the second-highest cause of cancer death in women; lung cancer is the first.) She also received a shared instrument grant at the end of 2018 for an extremely fast high-performance computer system, required to handle large datasets

and train deep learning networks. "It can potentially go up to 1.9 petaflops," she says. That's 1.9 quadrillion operations per second.

In April her team was also awarded one of three inaugural seed grants from the C3.ai Digital Transformation Institute, a consortium "dedicated to accelerating the socioeconomic benefits of artificial intelligence." The grants support the use of AI to mitigate COVID-19 and future pandemics; Giger's team aims to develop machine intelligence methods to help interpret chest X-rays and CTs, which can aid in the triaging of COVID-19 patients.

An overarching goal for Giger, one she shares with the UChicago radiology department, is to use radiomics from digital imaging to advance precision medicine. In her vision, data from millions of anonymous patients will be used to customize health care to each individual person: detecting and diagnosing disease early and giving the right patient the right treatment at the right time. •

GI IMPSFS

BETWEEN THE LINES

Brent Staples, AM'76, PhD'82, goes behind the work that earned him one of journalism's highest honors.

BY LAURA DEMANSKI, AM'94

n April 2019 the Pulitzer Prize for Editorial Writing was awarded to New York Times essavist and editorial board member Brent Staples, AM'76, PhD'82. In his 10 prize-winning pieces, Staples delved into the pervasive history of racism in the United States, bringing readers face to face with disturbing, largely overlooked chapters of black American experience whose legacy, he contends, we're far from overcoming. The editorials, the Pulitzer board said, were "written with extraordinary moral clarity."

They were also painstakingly researched. Staples brings a historian's chops to his work, writing opinion pieces anchored in facts that might otherwise have gone forgotten except by historians. At UChicago he studied psychology, teaching for a few years before joining the New York Times Book Review as an editor in 1985. Five years later he was named to the paper's editorial board. His columns have been nationally syndicated, and Staples's 1994 autobiography, Parallel Time: Growing Up in Black and White (Pantheon), won the Anisfield-Wolf Book Award. In April he was named a fellow of the Society of American Historians.

Since receiving the Pulitzer, Staples has continued to publish columns that bring to light lesser known stories of racial injustice in this country. His conversation with the Magazine has been edited and condensed.

Your approach to newspaper column writing is distinct and powerful. How do these pieces fit into the larger arc of your career? Do you see a greater need for people to remember such history in the current political moment?

I went to Tulsa, Oklahoma, two decades ago to report on the state-sponsored commission that was investigating the most destructive episode of racial terrorism in US history. The bloody conflagration now known as the 1921 Tulsa Race Massacre unfolded when the city empowered a mob of white vigilantes who murdered black citizens at will while reducing to ashes 38 square blocks of the prosperous African American commu-

nity known as Greenwood. For 50 years afterward, the blooddrenched event that troubled the city's sleep and defined its history was banished to the very margins of public awareness.

White families whose fathers, uncles, and sons had participated in the carnage enforced a civic silence. African American parents and grandparents kept quiet out of fear that speaking of the great evil might resurrect it. The white Tulsan who finally published a detailed account of the episode in 1971-enduring death threats along the way-was still living in the city when I stepped off the plane in 1999. He said something during one of our interviews—"History is the only education. Everything else is just training." that resonated with my inclinations as a writer and left a deep impression. The story of race and racism in the United States is obscured by layer upon layer of willful forgetting. Writing about this problem is by definition a forensic act.

How have your readers reacted?

Readers are hungry for historically grounded explanation. They cannot get enough of it.

A piece you wrote last October drew the most responses of anything you've written. What did readers say about it?

My essay "How Italians Became 'White" showed how the United States racialized southern Italians during the late 19th and early 20th centuries for being darker skinned, and they were ridiculed in white supremacist terms in the New York Times itself. The essay attracted a strikingly diverse readership, reaching somewhere between two and three million people. College-educated Americans who had no idea of the role racism plays in American immigration policy were surprised by the historical references—particularly the examples of anti-Italian and anti-black racism culled from the pages of the *Times*. Neighbors in the historically Italian section of Brooklyn where I have lived for more than 30 years stopped me on the street to discuss it.





Here and elsewhere these columns tell uncomfortable truths about the history of the newspaper in which they're published. Did you have full support to talk about that?

There are no comfortable truths about the pervasiveness of racism in the United States. As the great-grandson of a black Virginian who narrowly missed being born a slave and who died only a decade before I was born-I am irrevocably committed to speaking truth on matters of racial justice. Many years ago, during an argument with an editor, I enunciated what turned out to be a guiding personal principle. Before I dishonor the memory of my great-grandfather and my enslaved forebears, I said, I will quit this job and go wash cars.

Your essays bring to life figures like Frazier Baker and Madison Hemings (see "The Legacy of Monticello's Black First Family," page 49), to name just two, and transport us to their worlds for a time. Can you reflect on the importance to your work of bringing individual human beings and past moments to life in this way?

I take particular joy in helping to restore the dignity of figures like Madison Hemings, who was reviled by historians for saying what he knew from firsthand experience: that Thomas Jefferson was his father and the lover of his mother, Sally Hemings. The work of the historian Annette Gordon-Reed is inspiring in this way.

One of the striking things about the Pulitzer and post-Pulitzer pieces as a set is the extent to which they reflect and recommend reading deeply and widely. Why is that important to you?

Journalists often write swiftly under constraints that limit them to few if any citations. I get the time and space I need when working on major essays. I make full use of hyperlinks. I see citations as public service; they allow readers to find original source materials and make up their own minds about my arguments.

Are there ways in which your PhD work in psychology at the University has influenced your work as a journalist?

My reading in the philosophy of science—and the works of philosophers like Edmund Husserl, Michael Polanyi, and Paul Ricoeur—has shaped my ability to see beyond the surface of the world.

Which writers and journalists influenced your work the most, early in your career and now?

In stylistic terms, I was heavily influenced by the novelist Saul Bellow, EX'39, who was situated on the Committee on Social Thought when I was in my 20s. (I remember seeing him on campus soon after he was awarded the 1976 Nobel Prize.) I was fascinated by the way he grafted familiar people and news events into his novels, particularly Humboldt's Gift (Viking, 1975), The Dean's December (Harper & Row, 1982), and a few others.

Is there anything you've been reading lately that vou would recommend?

Not long ago, I published a Times essay about Seneca Village, the 19th-century African American settlement that was destroyed to build Central Park. This essay is of a piece with articles I have written over the last two decades illuminating the largely forgotten story of African Americans who lived, worked, and died in early New York City. Twentieth-century Manhattanites who grew up thinking of New York as a "free" state were stunned when construction workers unearthed the African Burial Ground in 1991.

The event forced people to reckon with the fact that Gotham was an epicenter of the slave trade in the United States and a hostile environment for free black New Yorkers who saw it as a duty to assist fugitives from slavery like Frederick Douglass, who touched down briefly in Manhattan before fleeing into New England. The black Manhattanites who established Seneca Village in the 1820s were fleeing the murderous hostility they experienced in Lower Manhattan. I am reading deeply into their lives to get a sense of their fears and aspirations. Leslie M. Alexander's African or American? Black Identity and Political Activism in New York City, 1784–1861 (University of Illinois Press, 2008) is a good place to start.

How did you react when you found out you had won the Pulitzer Prize?

With dishelief.

How have you changed as a writer and journalist from the beginning of your career to today?

I am more concise—sentence by sentence and in compositional terms.

What advice can you offer aspiring journalists?

Read as much as you can. Write as much as you can.

You've written that the only real hope of getting beyond racism in the United States is to talk about it, particularly about subtler forms of discrimination that persist today and that are the most deniable as innocent or accidental. How do you think we're doing in that regard?

The country is in denial about the pervasiveness of racism. That denial is reflected in the way the traditional news media speaks of obviously racist behaviors euphemistically, using phrases like "racially charged," "racially insensitive," or "racially inflammatory." Several years ago, I wrote an essay based on federal data showing that black preschoolers were

far more likely to be suspended than their white counterparts for essentially the same behaviors. I concluded the piece by writing something like, "This is how racism works at school." I stepped out of the office for a moment and returned to find that white editors had changed "racism" to "race."

This sanitized formulation implied that the crushing mistreatment visited upon African American schoolchildren had de-

scended from the heavens and fixed itself in place without human complicity. The sociologist Eduardo Bonilla-Silva critiques this kind of thinking in his widely cited book Racism without Racists (Rowman and Littlefield, 2003). The white editors who changed the wording in my essay were operating under the familiar presumption that the term "racist" should be reserved for sheet-wearing Klansmen. I countered that, in terms of effect, there is no discernible difference between the conduct of a self-declared white supremacist who deliberately sets out to crush a black child's life and the behavior of a self-declared liberal who achieves the same crushing effect while subscribing "unconsciously" to racist views of blackness.

As we complete this interview, the COVID-19 pandemic is taking a sharply greater toll on African Americans and Latinos than whites in the United States. What light does your work shed on this inequity?

Inequality is the defining feature of life in the United States. As the Princeton University professor Keeanga-Yamahtta Taylor wrote recently in the New Yorker, the pandemic has given a murderous twist to the old African American aphorism "When white America catches a cold, black America gets pneumonia." The disastrous COVID-19 death rate among black Americans reflects the structural racism that disproportionately confines them to the lowest rungs of society. They are more likely to experience joblessness, hunger, and life in crowded substandard housing-making them more susceptible to infection.

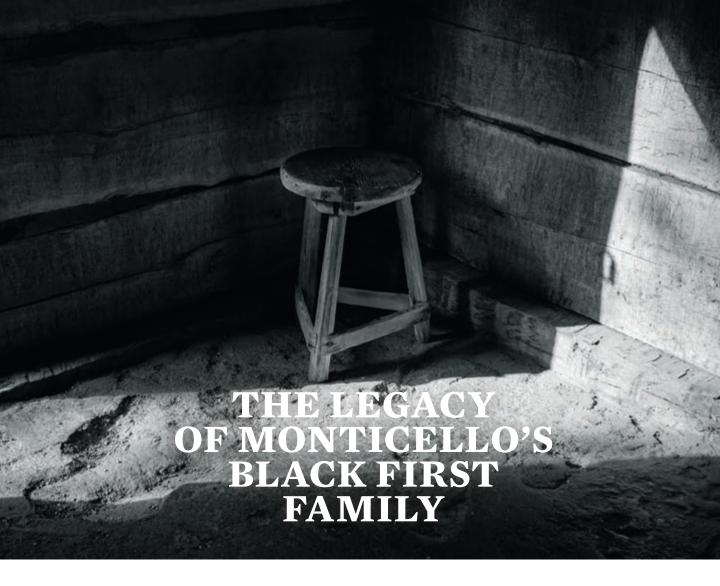
It is widely understood that racist stereotypes inform medical education, medical treatment, and public health policy itself. As I pointed out in my essay "Slandering the Unborn"—part of my Pulitzer nomination—racist stereotypes dominated the public discourse during the crack epidemic of the 1980s and '90s. News organizations embraced the fallacious view that mothers addicted to a cheap, smokable form of cocaine were giving birth to a generation of children who would be less than fully human. These women

> were thus deemed criminals from whom the unborn were said to need protection.

As I say in the essay, "The myth of the 'crack baby'-crafted from equal parts bad science and racist stereotypes-was debunked by the turn of the 2000s." By then, however, the discredited notion that cocaine was uniquely and permanently damaging to the unborn had been written into the legal code and used to

advance the view that the fetus was a person with rights superseding those of the mother. In other words, a racist idea first brought to bear against African American mothers had been generalized and applied to women as a whole. •

The country is in denial about the pervasiveness of racism.



A July 4, 2018, New York Times essay reflects on a recently opened exhibit at Thomas Jefferson's Virginia estate that gives new recognition to Sally Hemings and the role of slavery in the home—and his family.

BY BRENT STAPLES, AM'76, PHD'82

lantation wives in the slave-era South resorted to willful blindness when their husbands conscripted black women as sexual servants and filled the household with mixed-race children who inevitably resembled the master. Thomas Jefferson's wife, Martha, was several years dead when he set off on this path, fathering at least six children with Martha's enslaved black half sister, Sally Hemings. The task of dissembling fell to the remaining white Jeffersons, who aided in a cover-up that held sway for two centuries and feigned ignorance of a relationship between Jefferson and Hemings that lasted nearly four decades.

The foundation that owns Monticello, Jefferson's mountaintop home near Charlottesville, Virginia, broke with this long-running deception last month when it unveiled several new exhibits that underscore the centrality of slavery on the founder's estate. The most important—in the South Wing, where Sally Hemings once lived—explores the legacy of the enslaved woman whom some historians view as the president's second wife and who skillfully prevailed on him to free from slavery the four Jefferson-Hemings children who lived into adulthood. The exhibit underscores the fact that the Jefferson estate was an epicenter of racial mixing in early Virginia, making it impossible to draw clear lines

between black and white. It reminds contemporary Americans that slave owners like the Jeffersons often held their own black children, aunts, uncles, and cousins in bondage. And it illustrates how enslaved near-white relations used proximity to privilege to demystify whiteness while taking critical measure of the relatives who owned them.

Masters who maintained black "second families" are a familiar presence in the chronicles of the slave trade. Madison Hemings, the third of the Jefferson-Hemings children who survived into adulthood, offered his account of second-family life at Monticello in a poignant, strikingly detailed memoir published in an Ohio newspaper in 1873.

He explains that his mother was born of a union between Martha's widowed father, John Wayles, and his enslaved lover, Elizabeth Hemings, and was conveyed to Jefferson as property when Wayles died. It is widely known that Sally Hemings traveled to France in 1787-Jefferson was serving as a diplomat there-and learned French while serving in the family's household on the eve of the revolution.

We learn from Madison's account that during that time in France, Sally Hemings became pregnant with Jefferson's child and considered remaining in the country, where she would be a free woman, instead of returning to slavery in Virginia. She agreed to return only after Jefferson promised her "extraordinary privileges" and gave a

"solemn pledge" to free any children the two might have once they reached adulthood. Jefferson kept his pledge, making Sally Hemings the only enslaved parent at Monticello to see all of her children freed.

This negotiation suggests that the 16-year-old Sally Hemings had considerable insight into Jefferson's mind and some sense of what he could be obligated to do. She saw her surviving children-Beverly, Harriet, Madison, and Estonreap what the historian Annette Gordon-Reed describes as "an almost 50-year head start on emancipation, escaping the system that had engulfed their ancestors and millions of others."

That Jefferson conceded to Sally Hemings suggests that he did not view her through the abjectly racist lens he deploys against African Americans in his infamous book Notes on the State of Virginia. Musing on this subject two decades ago, the historian Winthrop Jordan suggested that her training as a lady's maid, lightly colored skin, and diction that probably matched Jefferson's—if not his late wife'snarrowed the social distance between them. Sally Hemings would have been keenly aware of this.

Madison refers to Jefferson affectionately as "father" throughout his memoir, noting that he was "uniformly kind to all about him," but as the historian Jan Ellen Lewis has written. "The Hemings children knew ... that they were the disfavored children of a loving and powerful man." Indeed, Madison depicts his family at Monticello as lying beyond the reach of the warmth and congeniality that Jefferson reflexively extended to his white grandchildren.

Madison seemed genuinely and affectionately interested in his white relatives-who never acknowledged their

> black relations and referred to them as slaves, "these parties," or "the vellow children." He cast a gimlet eye on James Madison's wife, Dolley, who was visiting Monticello when he was born and promised Sally Hemings a gift in exchange for naming him Madison: "But like many promises of white folks to the slaves," he said dryly, "she never gave my mother anything."

> The interracial tableau that played out at Monticello was familiar in the plantation South. The 19th-century diarist Mary Boykin Chesnut, for example, likened plantation husbands to "the patriarchs of old" who lived openly in one household with their wives and their concubines, noting bitterly that "the mulattoes one sees in every family partly resemble the white

children." White widowers like John Wayles and Thomas Jefferson who forged relationships with black women they owned were less controversial but equally common. Nevertheless, historians ridiculed Madison's story, dismissing him as a social-climbing fabulist.

His credibility was gradually restored during the late 20th century, after historians like Fawn Brodie [AM'36], Winthrop Jordan, and Gordon-Reed reevaluated this issue in light of corroborating evidence that forced Monticello to ratify Jefferson's paternity. Fittingly, the new exhibit tells the Sally Hemings story through Madison's testimony.

This places Sally Hemings at the center of plantation life, where she clearly belongs. It also shows that Jefferson's baronial mountaintop estate was just like any other plantation when it came to matters of sexual conduct. •

This essay originally appeared in the New York Times. Brent Staples © 2020 The New York Times Company

PEER REVIEW

WHAT ALUMNI ARE THINKING AND DOING



UChicago Photographic Archive, apf4-02786, University of Chicago Library

NOTES

A SELECTION OF ALUMNI WHOSE NAMES ARE IN THE NEWS

BLACK BUSINESS MILESTONE

This year marks the 50th anniversary of the National Black MBA Association (NBMBAA), an organization with roots at the University of Chicago. In April 1970 a group of black UChicago business school students—led by the late George Bradshaw, MBA'71; Alexander Gabbin, MBA'70; and the late Anthony Jackson, MBA'70—convened a two-day conference of their peers from nearly 30 MBA programs across the country. The first of its kind for an emerging generation of MBA holders, the gathering grew into the NBMBAA with its mission to develop partnerships that create intellectual and economic wealth in the black community. This April Gabbin and three other participants in the original conference—Gene Armstrong, MBA'69; James Hill Jr., MBA'67; and Clyde Proctor, MBA'69-hosted a virtual reunion commemorating the role of their UChicago cohort in founding an organization that now comprises 39 local chapters.

A NOVEL OF ITS TIME

Ling Ma, AB'05, an assistant professor of practice in the arts in UChicago's English department and creative writing program, has received a Whiting Award for fiction. The Whiting Foundation's \$50,000 award recognizes early literary achievement and the promise of great future work. Ma's debut novel Severance (Farrar, Straus and Giroux, 2018), at once "a zombie novel, a road movie, an immigrant novel, a mordant satire, a novel of first love," wrote the selection committee, is "a marvel of form" that considers "the troubled American present, including end-stage capitalism and especially cultural nostalgia, brilliantly conceived here as a fatal epidemic."

A LIFE IN VINYL

Record shop owner Rick Wojcik, AB'88, is the subject of the documentary *Dusty* Groove: The Sound of Transition (Petunia Productions, 2019), which had its Chicago premiere in February. Directed by Danielle Beverly, the film shares its name with the store Wojcik cofounded in 1996 as an e-commerce site-later to become



ARTISTIC EVOLUTION

The work of JoAnne Carson, MFA'79, was showcased in a 25-year retrospective at the Opalka Gallery of the Sage Colleges this past winter. JoAnne Carson: Rise Up and Shine! included sculptures, paintings, and drawings by the artist and University at Albany studio art professor, highlighting her distinctive style of representing nature through fanciful combinations. The 2017 sculpture Chlorophylia (For a World Without Color) (above) transmutes a tree's natural form into an artificial one—a bouquet—to produce a bit of visual wordplay. All but drained of the chlorophyll that gives it color, Chlorophylia sprouts otherworldly flowers to feed the viewer's love of green. Carson's work is in the collections of the Brooklyn Museum, the Museum of Contemporary Art Chicago, and UChicago's Smart Museum of Art.

Chicago's bricks-and-mortar Dusty Groove—and follows him into the world of acquiring records from their collectors and keepers. Viewers learn the stories of enthusiasts like Dusty Groove cofounder and former WHPK hip-hop DJ John Schauer, AB'86, and celebrated Chicago jazz saxophonist Grady Johnson. "I've always been as fascinated with the people who listen to music as I am with the music itself," Wojcik says in the film.

ADVOCATE FOR STUDENT SUCCESS

Rosa Hyun Perkins, AB'94, MBA'00, received the 2020 Horizons Hero Award for her work as the founder and board chair of Horizons National Chicago, a summertime academic enrichment program for underprivileged students in the city. With a professional background in finance, Perkins partnered with the University of Chicago Charter School to help launch the program on the South Side. Now in its third year, the program starts at the pre-K

level and stays with students through high school, offering tuition-free classes in math, reading, art, and other subjects.

BEST FIRST BOOK

In January Tim Cassedy, AM'05, an associate professor of English at Southern Methodist University, received the Modern Language Association's Prize for a First Book. In Figures of Speech: Six Histories of Language and Identity in the Age of Revolutions (University of Iowa Press, 2018), Cassedy examines a cultural moment at the turn of the 19th century when language itself gained prominence as a category of identity for people in the English-speaking world. His focus on six characters from the era who illustrate its ideas about language and selfhood earned him praise from the MLA judges. "It is a rare and wonderful gift," they wrote, "to be able to craft a scholarly argument that also tells page-turning stories."

-Andrew Peart, AM'16, PhD'18

RELEASES

ALUMNI BOOKS, FILMS, AND RECORDINGS

FAST CARBS, SLOW CARBS: THE SIMPLE TRUTH ABOUT FOOD, **WEIGHT, AND DISEASE**

By David A. Kessler, JD'78; HarperWave, 2020

America's agricultural economy has produced a national diet built largely on what former US Food and Drug Administration commissioner David A. Kessler calls fast carbs—the rapidly digestible starches and sugars in processed foods. Kessler explains the science of fast carbs, arguing that they drive up appetites, disrupt normal metabolism, and contribute to high rates of obesity, diabetes, and heart disease. Proposing healthier diets based on what he terms slow carbs, Kessler recommends legumes, nonstarchy and cruciferous vegetables, and certain grains.



SOVIET TEXTS

Translated by Simon Schuchat, AB'75, with Ainsley Morse; Ugly Duckling Presse, 2020 Writer and visual artist Dmitri Alexandrovich Prigov (1940-2007) was an important figure in Soviet and post-Soviet culture and in the global avant-garde as a founder of the movement known as Moscow conceptualism. This collection, described by the publisher as the first representative selection in English of Prigov's prose and poetry, includes short stories about heroes of Russia's revolutionary period and poetic sequences regarded as cult classics of Prigov's generation, such as "Image of Reagan in Soviet Literature." Translator Simon Schuchat, a retired US

diplomat who worked at the embassy in Moscow, describes Prigov as a major influence on Russian dissident artists like Pussy Riot and the Voina group.

MAD, BAD & DANGEROUS TO KNOW

By Samira Ahmed, AB'93, MAT'93; Soho Teen, 2020

Best-selling author **Samira Ahmed**'s latest young adult novel is the story of Khayyam Maguet, a Muslim American teen and aspiring art historian on a trip to Paris with her family. Khayyam is researching a series of Eugène Delacroix paintings based on an 1813 epic poem by the "mad, bad, and dangerous to know" Lord Byron. In *The Giaour*, Byron's fictional narrative of a Turkish military leader, his concubine, and her Venetian lover, the woman is killed for her love affair without ever speaking a line. Ahmed's protagonist helps uncover this forgotten heroine's side of the story as she navigates her own multihyphenate identity.



URBAN COUNTERPOINT: THE PIANO MUSIC OF ED BLAND

Music composed by Ed Bland, EX'50; Cambria Master Recordings, 2020

The late composer, arranger, and onetime filmmaker Ed Bland produced a body of solo piano works that combine Western classical music with African American and West African traditions. Performed by pianist and Bland collaborator Judith Olson, the selections on this album include the jazzy "Heat Seeking Missile," the bluesy "Zone Blue," and the gospel-inspired "Classical Soul." When Olson began working with Bland

in the 1990s to interpret these pieces, he described the latter as "[Charles] Ives meets Ray Charles." Each track here reflects Bland's aim to unite modernist experimentation with black vernacular style. (To read about Bland's work as a filmmaker, see "Jazz as Cri Di Coeur," Winter/20.)

SEEING BY ELECTRICITY: THE EMERGENCE OF TELEVISION, 1878-1939

By Doron Galili, PhD'11; Duke University Press, 2020

The form of broadcast television that emerged in the 1930s had its origins in the Phantoscope, the Distant Seer, and other speculative 19th-century technologies for transmitting moving images, argues media archaeologist and Stockholm University researcher **Doron Galili**. Not long after the 1876 invention of the telephone, technicians and commentators alike began imagining the use of wires and electric signals to send and receive pictures as well as sound. When television's first practical prototypes appeared in the 1920s, Galili shows, avantgarde artists like Dziga Vertov were ready to explore the medium's potential to expand human perception.

FEWER, RICHER, GREENER: PROSPECTS FOR HUMANITY IN AN AGE OF ABUNDANCE

By Laurence B. Siegel, AB'75, MBA'77; John Wiley & Sons, 2019

Our imminent future will see the centurieslong trend in the developed world toward greater wealth and well-being spread to the rest of the globe, argues finance and economics expert Laurence B. Siegel. As population growth everywhere levels off, pressures on the environment, the food supply, and living space will ease, putting more economic resources within reach of greater numbers of people. Siegel acknowledges that progress will face environmental and other challenges but contends that technology, innovation, and economic growth will provide solutions.

-Andrew Peart, AM'16, PhD'18

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

ALLIMNI ESSAY

I TINKER, THEREFORE I AM

How an activist and technician found himself at the Mission Science Workshop.

BY DAN SUDRAN, AB'66

ake a shy, somewhat bright but neurotic, Jewish teenager, with left-leaning iconoclastic UChicago alumni social worker parents who lived through the Red scare in Kansas City, Missouri. Add the soulcrushing years of the mid-1960s, when young men his age were being sent to the killing fields of Vietnam while he wended his way through the University, majoring in modern European social history, hopeful for a life living up to the world-repairing vision he was raised with. Combine with the father's successful project of raising his son to be fluent in Spanish. You get a recipe for a life full of surprising possibilities.

Fast forward to 2020, and you will find that teenager (me) at 76 years of age hunched over a workbench in the converted old auto shop at San Francisco's Mission High School, desoldering the speaker wires of a Panasonic model 2400D AM/FM radio. Tinkering with this ancient device provides an opening for my students at the Mission Science Workshop to explore the wonderful three-dimensional world of electromagnetism, sound, and light.

How did I get here? It took three years as a law student, two years as a VISTA (Volunteers in Service to America) lawver helping migrant farmworkers, and four years as an organizer under Cesar Chavez. Then, in an unexpected excursion to the engineering department of City College of San Francisco, I learned to use my hands and mind in new ways and-perhaps in unconscious defiance of my father's intellectual, hands-off approach to life-undertook a 10-year career as an electronics technician.

In 1990, after repairing and calibrating my 50th Telequipment vacuum tube-based oscilloscope, it was time for a change. I opened the door of my home garage in the inner Mission District. Neighborhood kids (mostly Spanish speaking) came in to play with microscopes, oscilloscopes, and more. In six months, with the support of the chancellor of City College, that

Now summer vacations had a new purpose: scouring the California landscapes for bones-rocks and fossils, too, to share the story of ... an ancient Earth.

garage moved to a public space, creating something new in the world: a community science workshop.

It wasn't all electronics. In the early days of the workshop, animal bones helped build the concept of active neighborhood-based science. Rather than holding out for full skeletons, I collected partials from roadkill out in the country. Regardless of condition, almost every spine was pretty sure to vield either a complete cervical, thoracic, lumbar, or caudal sequence of bones. Legs could be assembled from incomplete remains of horses, cows, deer, elk, and antelope.

Now summer vacations had a new purpose: scouring the California landscapes for bones-rocks and fossils, too, to share the story of animal structures, evolution, an ancient Earth, and its artifacts. Whale bones from nearby beaches were packed into a donated truck and shared with schools, where children could themselves help assemble a 30-foot-long skeleton.

Geology, which had always seemed the dismal science to me, came to life as well with the help of local geologists who shared my dismay at the gap between public understanding of Earth and its history and the specialized, often inscrutable vocabulary their profession has developed. The sea cliff at Mussel Rock became my local Grand Canyon.



Its abundant fossils and virtually continuous exposure of shallow to deep water sedimentation provided evidence of three million years of sea level fluctuations along the San Andreas Fault.

Further afield, sites in Utah, Idaho, and Wyoming opened a window into "deep time" that had been enshrouded in jargon for me. Southeastern Idaho provided beautiful Paleozoic horn corals (300 million years old); Utah's Cambrian trilobites (500 million) were available in amazing abundance in the House Range; and Wyoming's Green River Formation held the largest deposit of freshwater fish fossils in the world. The friendly manager of a private quarry there was excited to provide his partials in limey shale. Back home, with small dollarstore wood chisels, students themselves uncover the 50-million-year-old fish from these partials.

Only three years ago did I begin to look at all those years of hands-on curiosity, discovery, and sharing in a new light: as tinkering. It happened when a friend donated some discarded speakers to the workshop.

Every speaker has a magnet surrounding the copper windings of the voice coil. The magnet pushes and pulls on the coil as electrical oscillations cycle through from a radio or other sound source. In my first self-conscious act of tinkering, I pried away

the magnet of a very small speaker, leaving the voice coil attached. Then I disconnected an old radio's output wires from its own speaker and connected them to the isolated voice coil of the small speaker. While bringing either pole of the separated magnet back up to the coil, I was amazed to hear sound. At a good inch distant from the magnet, the coil and its attached speaker cone began to vibrate and transmit a radio station signal, with my favorite raucous *norteña* music, right to my ears.

We can read about Michael Faraday's discovery of the electromagnetic force, or see James Clerk Maxwell's elegant field equations setting out the variables and how they relate. But producing that force with one's own hand is an incomparably deeper experience for body and soul. I want to bring that kind of experience to as many people as I can.

So today I'm still whacking away at all sizes and styles of speakers—and so are the children, parents, and teachers who visit Mission Science Workshop. We do every manner of take-it-apart, put-it-together, figure-it-out, do-it-yourself tinkering adventures. We may even be rescuing ourselves from the increasingly addictive and abstracted digital world.

Tim Wu has called it "the tyranny of convenience"—when we are so accus-

tomed to having machines take care of everything that we're in danger of losing any understanding of how and why things work as they do. When Ernest Rutherford was asked how it was that so many Nobel Prize winners had worked in his lab in Cambridge, he said, "We were just like children taking a watch apart to see how it worked." Except, of course, their watch was the atom.

When I see kids with their computers, tablets, and cell phones, I fear they have little notion of why their movements are producing the desired results-that is, of the workings of the real three-dimensional world they're part of. That understanding is important, not only to keep things working, but also for our very souls. Rachel Carson had the soul in mind when she said this: "If I had influence with the good fairy ... I should ask that her gift to each child in the world would be a sense of wonder so indestructible that it would last throughout life as an unfailing antidote against the boredom and disenchantments of later years, the sterile preoccupation with things that are artificial, the alienation from the sources of our strength."

Tinkering is a powerful antidote. ◆

Dan Sudran, AB'66, is the founder of San Francisco's Mission Science Workshop. Visit online at missionscienceworkshop.org.

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.



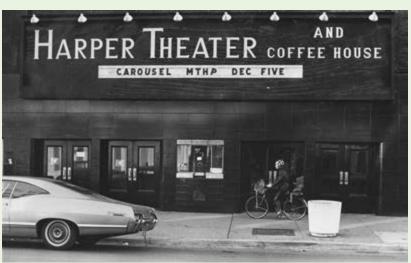
Line of defense: Jean Roff Smith, EX'44, receives a trial influenza vaccine in January 1941. The vaccine, administered here by nurse Martha Cooley, was developed by Rockefeller Foundation scientists Frank Horsfall and Edwin Lennette, SB'31, PhD'35, MD'36. Despite hopes that the so-called complex vaccine would defend against flu epidemics at home and abroad during World War II, its performance in human trials proved inconclusive, and the scientists kept searching.

JChicago Photographic Archive, apf4-01517, 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.



"Keep on Pushing": The title of the Impressions' 1964 hit, a civil rights anthem, provides words of encouragement in the Ida Noyes Hall office of the Student Woodlawn Area Project (SWAP). Led by Ann F. Cook, AM'66, and Herbert L. Mack, AB'59, MAT'66, SWAP recruited UChicago student volunteers to tutor underserved South Side high school students. True to its name, SWAP approached tutoring as a two-way process and governed itself democratically: a 10-member tutee advisory committee helped steer programming.



Off-Broadway meets cabaret: In December 1969 the Music Theater of Hyde Park put on a production of the Rodgers and Hammerstein musical Carousel at the Harper Theater and Coffee House on 53rd Street and Harper Avenue. Built as a vaudeville house in 1914, the Harper was converted to a modern cinema in 1935 and became a venue for live theater, music, and dance in 1961, when it was bought by Hyde Park Herald publisher Bruce Sagan, EX'49. After experiencing several more sales, closures, and reopenings through the years, the University bought the theater in 2002. With extensive renovations, the building now houses a four-screen neighborhood movie theater and the Polsky Exchange start-up hub.

Are you reading Short List?



Every other Tuesday get updates from the quads, straight to your in-box:

- Must-read stories
- · Alumni and faculty in the news
- UChicago experts' views and advice
- Career resources and events
- · Something fun in every issue

To subscribe or read past issues, visit alumni.uchicago .edu/shortlist





Reform minded: University of Chicago Women's Union founding member Lauren Furst, AB'79 (left), with fellow members Judith Sedaitis, AB'79, AM'82 (middle), and Sharon Pollack, AB'94 (Class of 1979), in 1979. Founded three years earlier, the Women's Union (not to be confused with the former social club founded in 1901) was an organization of student activists focused on gender equality and such causes as improving health care services, providing access to sexual assault counseling and self-defense training, and increasing female representation in the curriculum. The Women's Union, wrote the Maroon in 1979, saw itself "as a catalyst for making the University and Hyde Park more comfortable and equitable places for women to live and work."



Where are the shops of yesteryear? In May 2000 these were the businesses that graced the south side of 53rd Street between Dorchester and Kenwood Avenues. Do you have memories of Ribs 'n' Bibs, Scholars' Books, 2nd Hand Tunes, or Flower Bucket? Write to us at uchicago-magazine@uchicago.edu. Let us know if there are other now-gone Hyde Park establishments you miss.

IT'S NOT TOO LATE TO BECOME

- Intensive, full-time preparation for medical school in one year
- Early acceptance programs at select medical more than any other postbac program
- premedical advising

POSTBAC@BRYNMAWR.EDU 610-526-7350



POSTBACCALAUREATE PREMEDICAL PROGRAM **BRYN MAWR COLLEGE**

ATHENA PHEROM♥NES INCREASE AFFECTION



Created by Winnifred Cutler, Ph.D. in biology from U. Penn, postdoc Stanford. In 1986 codiscovered human pheromones

Effective for 74% in two 8-week studies and 68% in a 3rd study.

PROVEN EFFECTIVE IN 3 IND STUDIES



INCREASES YOUR ATTRACTIVENES

Vial of 1/6oz. lasts 4-6 months Athena 10Xtm For Men \$99.50 10:13 tm For Women \$98.50 Cosmetics Free U.S. Shipping

- Sara, Ph.D. (CO) "It has major positive effects on my work in my contacts with people. It's like the Red Sea parts! I don't think it's all my charm! This product is shocking!"
- ♥ Don (CA) "I know the Athena pheromones are based on substantial science. At parties, I'll invariably end up surrounded by women."

Not in stores 610-827-2200 Athenainstitute.com

Athena Inst. Braefield Rd Chester Spgs, PA 19425 UCM

DEATHS

TRUSTEES

Robert G. Schloerb, JD'51, trustee emeritus, died December 19 in Chicago. He was 95. A World War II veteran and Purple Heart recipient, Schloerb was a senior partner at the law firm Peterson, Ross, Schloerb & Seidel, where he represented insurance companies. After retiring from full-time work, he remained of counsel with the firm, renamed Peterson & Ross, for more than a decade. Elected to the UChicago Board of Trustees in 1983, he became a life trustee in 1994 and trustee emeritus in 2007. A life member of the UChicago Medical Center's board of trustees, he also served on the advisory councils of the Law School, the Library, the Oriental Institute, and the Divinity School. He is survived by his wife, Mary; sons Peter Schloerb. LAB'69. David W. Schloerb. LAB'72, John M. Schloerb, LAB'80; three grandchildren, including Anna Schloerb, LAB'19, and current Laboratory Schools student Jonah Schloerb; and a great-grandchild. Willie D. Davis, MBA'68, trustee emeritus, died April 15 in Santa Monica, CA. He was 85. A Pro Football Hall of Fame defensive lineman who launched a second career as a business leader, Davis played 12 seasons in the National Football League, studying for his MBA in the off-seasons and never missing a game. After a stint with the Cleveland Browns, he joined the Green Bay Packers in 1960 and helped the team win five league championships, including the first two Super Bowls. Retiring from football in 1969, he became the owner of a beer distributorship in Los Angeles and later bought a radio station that he turned into the All-Pro Broadcasting radio network. Elected a University trustee in 1983, he became a life trustee in 1999 and a trustee emeritus in 2007, and also served on the boards of many corporations, including the Packers. He is survived by his wife, Carol; a daughter; a son; and four grandchildren.

FACULTY AND STAFF

William D. Grampp, AM'42, PhD'44, of Chicago, died August 30. He was 105. Grampp was professor emeritus of economics at the University of Illinois at Chicago, where he taught for more than three decades. In retirement he taught in UChicago's Social Sciences Collegiate Division and in the Law School's law and economics program. An expert in the history of economic ideas, he wrote *The* Manchester School of Economics (1960) and the two-volume textbook Economic Liberalism (1965). His research on the microeconomics of the visual arts resulted in Pricing the Priceless: Art, Artists, and Economics (1989). He is survived by his partner, Annette Giganti; two daughters; a son; four grandchildren; and four great-grandchildren.

Richard H. Miller, PhD'58, associate professor emeritus of astronomy and astrophysics,

died March 7 in Chicago. He was 93. After attending the College for one year, Miller served in the Navy during World War II and earned a bachelor's degree through the V-12 Navy College Training Program. Returning to Chicago, he joined Enrico Fermi's cyclotron program, earned his PhD in physics, and began a nearly 40-year teaching career at UChicago. A pioneer in computational astrophysics, he contributed to the first major uses of large-scale computing in astronomy. In 1965 he became founding chair of the University's Committee on Information Sciences, and in the late 1970s he programmed a computer at NASA's Ames Research Center that allowed astronomers to simulate evolution in the structure of the universe. A phenomenon he discovered in his computations, named Miller's instability, remains fundamental in the field of galactic dynamics. His wife, Mary Funk Miller, AM'56, died in 2016. Nancy D. Munn, professor emerita in the Department of Anthropology and the College, died January 20 in Chicago. She was 88. Munn, a native New Yorker who earned her PhD at Australian National University, taught at the University of Massachusetts Amherst before joining the UChicago faculty in 1976 as the anthropology department's first female full professor. Her extensive fieldwork in Australia and Papua New Guinea focused on the cultural symbolism of indigenous societies and on the cultural construction of place, space, and time, resulting in such works as The Fame of Gawa: A Symbolic Study of Value Transformation in a Massim Society (1986). A Guggenheim Fellow, Munn retired in 1997 but remained an active scholar in the anthropology department, lecturing and working on a book about place in antebellum New York City.

Raymond D. Fogelson, professor emeritus of anthropology, comparative human development, psychology, and in the College, died January 20 in Blairsville, GA. He was 86. A leading expert on Native American ethnology, Fogelson joined UChicago's anthropology department in 1965 and taught on the faculty for more than 45 years. His research encompassed the study of hunting and gathering societies and the comparative study of religion, among other fields, and involved fieldwork with eastern Cherokee, Oklahoma Cherokee and Creek, and Shuswap peoples. He served as president of the American Society for Ethnohistory, dedicated to a field he helped found, and edited Southeast (2004), volume 14 of the Smithsonian Institution's Handbook of North American Indians. He is survived by his wife, Karen Luckritz, MLA'00; a stepdaughter; a stepson; and two step-grandchildren.

Alfred "Fred" T. Anderson Jr., professor emeritus in the Department of Geophysical Sciences, of Chicago, died January 15. He was 82. A geologist who studied volcanic

rocks, Anderson joined the UChicago faculty in 1968, retiring in 2005. He pioneered a method of analyzing melt inclusions, glass droplets inside volcanic rock samples, to determine how past volcanic eruptions unfolded. His approach became a standard means of reconstructing eruptions, including those distant in history; Anderson and his team reconstructed the 760,000-yearold Bishop Tuff eruption near today's Yellowstone National Park. A longtime Snell-Hitchcock resident master with his wife. Caroline (Jones) Anderson, AM'63, PhD'66. he gave tours of downtown Chicago focusing on the petrology of stones used in buildings. He is survived by his wife; two sons, including Eric E. Anderson, LAB'85; a sister; and four grandchildren.

Lanny D. Bell, AB'63, associate professor emeritus of Egyptology, died August 26 in Old Saybrook, CT. He was 78. A leading Egyptologist who spent years heading archaeological fieldwork expeditions, Bell earned his doctorate from the University of Pennsylvania while serving as field director of the Penn Museum's Theban tomb project at Dra Abu el-Naga. From 1977 to 1989 he led the Oriental Institute's Epigraphic Survey at Chicago House in Luxor. He also taught in the Department of Near Eastern Languages and Civilizations, retiring in 1996. Bell lectured widely with the Archaeological Institute of America and served as a consultant for National Geographic. In retirement he was a visiting researcher in Egyptology at Brown University and led OI tours to Egypt. Christopher M. Freeman, AB'85, MAT'95, of Chicago, a mathematics teacher at the Laboratory Schools, died February 7 after an extended illness. He was 58. Freeman joined Lab's faculty in 1994 and most recently taught mathematics at the middle school level. In addition to coaching the middle school math team, he led students in afterschool and summer enrichment activities. He also taught math to gifted Chicago-area students in programs administered by the Center for Gifted at National Louis University. Drawing from curricula he developed there and at Lab, Freeman wrote several books of instruction in math activities. He is survived by his wife, Maria K. Freeman, AB'88, AM'90, PhD'05; a daughter, Clara Freeman, LAB'10, AM'16; and two sons, Edward Freeman, LAB'15, and current Laboratory Schools student John Freeman.

Marilee K. Scaff, AM'38, died March 8, 2019, in Claremont, CA. She was 103. A Christian missionary in the Philippines during World War II, Scaff was imprisoned by Japanese forces with her husband and young son for more than a year before they were liberated in the raid on Los Baños. When her husband joined the Pomona College sociology faculty, she took a prominent role in Claremont civic life and education. She later earned a doctorate in educational psychology and taught at several universities, concluding her career in the Philippines at De La Salle University and Silliman University. In retirement she was a well-known community activist in Claremont. She is survived by three children, five grandchildren, and six great-grandchildren.

1940s

Mildred Lois Roff Waller, SB'42, died February 19 in North Little Rock, AR. She was 98. Waller and her husband, Tom W. Waller, EX'40, married in Bond Chapel in 1943, when he was on leave from the US Marine Corps. She later earned a private pilot's license with a solo flight in a Piper Cub aircraft. A lifelong member of the Episcopal Church, she directed St. Francis House, a social services ministry in Little Rock, for nearly a decade. Her husband died in 1989. She is survived by two daughters, three sons, 10 grandchildren, and three great-grandchildren.

Dorothy Hager Ross, AB'45, died April 13 in Buffalo Grove, IL. She was 97. She and her husband, Maurice L. Ross Jr., AB'38, married in Bond Chapel in 1945 and were a devoted couple for 58 years. In the 1970s she became an elementary school teacher in Chicago's northern suburbs. She also served on the boards of Writers Theatre in Glencoe, IL, and the North Shore Senior Center. Her husband died in 2003. She is survived by two daughters, two grandchildren, and one great-grandchild. Roselle (Hermann) Foster, SB'47, died November 17 in Miami. She was 93. Foster was a teacher at St. Andrew's Priory School in Honolulu before moving to Miami to raise her family. Resuming her career, she taught upper-level high school mathematics and science for 40 years. In retirement she devoted her time to volunteering, traveling, and gardening. She is survived by two sons and two grandchildren.

Allison Cate Hartman, LAB'47, of Chicago, died November 13. She was 88. A sports car and motorcycle racer, Hartman ran Hyde Park Auto Service for more than 30 years. After closing the shop, she earned a criminal justice degree from Chicago State University and two postgraduate degrees from the UIC John Marshall Law School, practicing elder and real estate law until her death. Hartman also restored homes with her son. James Russell Clowes, LAB'69, who died in June 2019 (see page 78). She is survived by her partner, John Millington; a son, Daniel Clowes, LAB'79; a brother, James L. Cate Jr., LAB'53; and a grandson.

Robert J. Wolfson, SB'47, AM'50, PhD'56, died April 4 in Riverdale, NY. He was 95. Wolfson returned to the College after serving in the US Navy during World War II, changing his major from physics to mathematics. He began his academic career as a UChicago economics lecturer, later serving on the faculties of Michigan State University; the University of California, Los Angeles; and Syracuse University, where he taught at the Maxwell School of Citizenship and Public Affairs until his retirement. As an economist, he aimed to develop a unifying language and analytical structure for the social sciences. In retirement he resumed studying physics. His wife, Betty (Bunes) Wolfson, PhB'45, died in 2018. He is survived by two daughters; a son, Paul J. Wolfson, AB'78; three grandchildren; and three great-grandchildren.

Charles F. Custer, AB'48, JD'58, died January 21 in Chicago. He was 91. Custer, whose first job was unloading coal in his native Kansas, became a leader in the mutual fund industry. He was running small businesses in photography and television with his wife, Irene Custer, AB'48, when he decided to attend the Law School to sharpen his business skills. He went on to head the investment services group of the Chicagobased law firm now known as Vedder Price. His wife died in 2011. He is survived by two daughters, including Shannon C. Nelson, LAB'70; a son, Charles F. Custer Jr., EX'75; three sisters; four grandchildren; and two great-grandchildren.

Harriet Alta Pierce Winsor, AB'49, died November 4 in Lynnfield, MA. She was 91. Winsor and her husband raised their family in Wakefield, MA, where she volunteered for community service organizations. After her husband's death, she embarked on a career in her 50s as a social worker with a local senior care agency. She is survived by four daughters, one son, five siblings, 10 grandchildren, and a great-grandchild.

1950s

Carol Drath Lerner, AB'50, AM'54, died January 28, 2019, in Chicago. She was 91. Elected to Phi Beta Kappa during her years in the Hutchins College, Lerner later took informal courses in botany, ornithology, and botanical illustration at the Morton Arboretum and launched a 30-year career as an award-winning author and illustrator of natural history books for elementary school students. An accomplished photographer, birder, and gardener, Lerner was devoted to preserving the rapidly vanishing natural areas of the Midwest, especially prairies and wetlands. Much of her artwork is archived in the rare print collection at the Morton Arboretum's Sterling Morton Library. She is survived by her husband, Ralph M. Lerner, AB'47, AM'49, PhD'53, the Benjamin Franklin Professor Emeritus of Social Thought and in the College; two sons, Josh Lerner, LAB'78, and Jesse Lerner, LAB'80; and a grandchild. Dick H. Fredericksen, AB'51, SM'68, died November 19 in Tucson, AZ. He was 88. An economics major at UChicago, Fredericksen worked in sales for IBM before returning to earn a master's in computer science. He then rejoined IBM as a computer programmer at their main research laboratory in Yorktown Heights, NY, where he worked until his retirement. Moving to Tucson, he volunteered as the webmaster for the Sonoran Arthropod Studies Institute. He is survived by three daughters, a son, and seven grandchildren.

Stephen P. Cohen, AB'57, AB'58, AM'59, of Raleigh, NC, died October 27. He was 83. A pioneering scholar in South Asian security studies, Cohen taught history and political science for more than 30 years at the University of Illinois at Urbana-Champaign, where he cofounded and directed the Program in Arms Control, Disarmament, and International Security. He served on the US State Department's policy planning staff under President Ronald Reagan and later became a senior fellow at the Brookings Institution. Survivors include his wife, Roberta (Brosilow) Cohen, AB'59; two daughters; four sons, including Jeffrey A. Cohen, AB'86, MBA'01; and several grandchildren. Laurence J. Victor, SM'57, of Tucson, AZ, died July 6, 2019. He was 84. Victor, who had doctorates in physics and educational psychology, developed innovative curricula for students in grades K-6. For nearly 25 years he taught psychology at Pima Community College, where he chaired the department. Active in movements to improve education, Victor did research on human learning and promoted cooperative learning. Survivors include his wife, Elizabeth.

1960s

Edward T. O'Dell Jr., JD'60, of Westwood, MA, died October 7. He was 83. O'Dell worked for the US Securities and Exchange Commission before joining the law firm Goodwin Procter. As a partner in the Boston firm, he established its investment management practice. In retirement he mentored young entrepreneurs as a volunteer with SCORE (Service Corps of Retired Executives). He is survived by a daughter, a son, and six grandchildren.

J. Rogers Hollingsworth, PhD'60, died October 23 in La Jolla, CA. He was 87. Professor emeritus of history and sociology at the University of Wisconsin-Madison and a former president of the Society for the Advancement of Socio-Economics, Hollingsworth was an expert on US and European political economy, the study of institutions and organizations, and comparative health services. In retirement he studied biomedical science organizations and researchers and the factors that foster excellence, with visiting appointments at the University of California, San Diego, and the Neurosciences Institute. He is survived by his wife, Ellen Jane; a daughter; and a grandchild.

Roy G. Benedict, AB'63, died July 1 in Chicago. He was 78. A mathematics teacher at Chicago's South Shore High School, Benedict was second in length of employment there when he retired. Formerly the editor of the Shore Line Interurban Historical Society quarterly First & Fastest, he researched and wrote about land mass-transportation systems such as the South Shore Line, bequeathing his collection to the Illinois Railways Museum's Strahorn Library. Carol D. Brightman, AM'63, died November 11 in Damariscotta, ME. She was 80. In 1965 Brightman founded *Viet Report*, a newsletter

about the Vietnam War, and in 1969 she cofounded the underground newspaper Leviathan. During this period, she traveled to North Vietnam to participate in the so-called Russell Tribunal and to Cuba as a leader of the Venceremos Brigade. Brightman later wrote a National Book Critics Circle Award-winning biography of novelist Mary McCarthy, edited a collection of McCarthy's correspondence with philosopher Hannah Arendt, and wrote a social history of the Grateful Dead and its fans. She is survived by a daughter, a son, a sister, a brother, and three grandchildren.

Ellen M. Sutor Ginsberg, PhD'63, died January 29 in Silver Spring, MD. She was 84. A scholar of French Renaissance theater and poetry, Ginsberg taught at Bryn Mawr College, the University of Maryland, and for nearly three decades at the Catholic University of America, where she chaired the modern languages and literatures department. She lectured and held teaching posts in France, Japan, and many other countries. With her husband, Robert E. Ginsberg, AB'55, AM'58, she founded the International Center for the Arts, Humanities, and Value Inquiry. She is survived by her husband. Jeanne Weinhold Klems, AM'64, of Berkeley, CA, died May 7, 2019. She was 85. As a psychiatric social worker, Klems was director of intake for an outpatient program at Chicago's Michael Reese Hospital. She then worked at family service and mental health agencies in California and New York. Changing her focus to geriatric care, she later set up her own business as a care manager in Berkeley. An accomplished amateur soprano, she sang with the Chicago Symphony Chorus and the Bach-Verein in Heidelberg, Germany, and cofounded the Berkeley Cantata Group. She is survived by her ex-husband, Joseph H. Klems, SB'64, SM'65, PhD'70; a daughter; and a son. Joel L. Shatzky, AM'65, died April 3 in New York City. He was 76. A playwright, writer, and editor, Shatzky was professor emeritus at the State University of New York College at Cortland, where he taught drama and writing for more than 35 years. His scholarship included a coedited two-volume reference work on contemporary Jewish American authors. He also edited memoirs by Holocaust survivors Norbert Troller and Susan Cernyak-Spatz. His last play, A Day in the Life, Parkinson's, was performed in Long Island City, NY, in 2019. He is survived by his wife, Ilana Abramovitch; a daughter; a son; and two grandchildren.

Vern Bengtson, AM'66, PhD'67, of Santa Barbara, CA, died November 8. He was 78. A social psychologist who studied intergenerational relations, Bengtson taught for more than 40 years at the University of Southern California. He joined USC's newly established Andrus Gerontology Center in 1967 and later held appointments in the school of gerontology, the school of social work, the sociology department, and the Roybal Institute on Aging. He initiated the Longitudinal Study of Generations, a survey of interactions, relationships, and values in four generations of California families. His

many honors included the National Council on Family Relations' Ernest W. Burgess (PhD 1913) Award for career achievement. He is survived by his wife, Hannah Gruhn-Bengtson; two daughters; and four grandchildren. James Russell "J. R." Clowes, LAB'69, died June 17, 2019, in Chicago. He was 67. Raised in Hyde Park, Clowes moved to Sausalito, CA, after high school, living on a houseboat and operating a pirate radio station. Skilled in woodworking and cabinetry design, he returned to Hyde Park in the late 1980s and restored houses with his mother, Allison Cate Hartman, LAB'47, who died in November (see page 77). He is survived by a brother, Daniel Clowes, LAB'79.

Michael D. Sorkin, AB'69, died March 26 in New York City. He was 71. An architect and critic who advocated for social justice in urban planning, Sorkin wrote provocatively about architecture for the Village Voice in the 1980s while teaching at several universities. He later ran his own architecture firm and directed the graduate urban design program at the City College of New York's architecture school. In 2005 he founded the Terreform Center for Advanced Urban Research, a nonprofit studio focused on equity and sustainability in cities. A Guggenheim Fellow, he wrote numerous books and proposed large-scale urban designs that promoted his ideals and influenced other architects. He is survived by his wife, Joan Copjec.

1970s

Joanna E. Frueh, AM'71, PhD'81, died February 20 in Tucson, AZ. She was 72. An art historian and performance artist, Frueh directed Artemesia Gallery, a feminist art cooperative in Chicago, during the 1970s. She went on to teach at Oberlin College, the University of Arizona, and the University of Nevada, Reno, where she became professor emerita of art history in 2007. Through her writing and such performance works as The Aesthetics of Orgasm (2002), she sought to unite the erotic and the rational as forms of knowledge. The recipient of a lifetime achievement award from the Women's Caucus for Art, she is survived by her spouse, Kathleen Williamson, and a sister.

Barton J. Ellis, AM'72, died January 17 in Long Beach, CA. He was 81. An SSA graduate, Ellis provided in-office therapy to adults with mental disorders. He and the therapists he trained taught their clients independent living skills (ILS), including social skills. Ellis later ran a business staffed by therapists who taught children with autism an applied behavioral analysis technique known as discrete trial training. Based in part on his work in ILS, he wrote The Date Doctor's Guide to Dating: How to Get from First Date to Perfect Mate (1998). He is survived by his wife, Susan, and a daughter.

David B. Goldston, AB'73, of Bentleyville, OH, died June 22, 2019. He was 67. With a law degree from George Washington University, Goldston worked at the firm Arent Fox in Washington, DC, before joining the

Cleveland-based automotive and aerospace corporation TRW, where he became vice president and assistant general counsel. He later served as general counsel of Jo-Ann Stores, from which he had recently retired at the time of his death. He is survived by his wife, Bonnie Borman; a daughter; three sons; a sister; a brother; and a grandchild.

Douglas F. Rutledge, AM'79, PhD'87, died from complications of multiple myeloma September 1 in Columbus, OH. He was 68. A writer and scholar whose dissertation focused on Shakespeare's Measure for Measure, Rutledge taught college-level English and edited Ceremony and Text in the Renaissance (1996). Dedicated to humanitarian issues, he wrote for several projects about refugees, including The Somali Diaspora: A Journey Away (2008), a book of essays and photographs. Earning an MFA in creative writing in his 60s, he published poetry widely and edited a 2019 sourcebook on poet Angie Estes, his mentor. He is survived by his wife, Rebecca, and a brother.

1980s

Lawrence A. Mishlove, MD'88, of Olympia, WA, died March 7, 2019. He was 56. Mishlove did his medical internship in general surgery at Tulane Medical Center and then completed two residencies, one in general surgery at Phoenix's Maricopa Medical Center and the other in diagnostic radiology at Chicago's Michael Reese Hospital. A board-certified radiologist who held medical licenses in Louisiana, California, and Florida, Mishlove presented and published research in his field of expertise. He is survived by two children; his mother and stepmother; and three sisters.

1990s

David L. Kessenich, MBA'96, of Denver, died January 22. He was 52. Raised on a thirdgeneration Iowa farm, Kessenich worked in investment banking and private equity before cofounding Excellere Partners, an investment firm focused on entrepreneurs. A member of Chicago Booth's Private Equity Council, he also remained involved in operations on his family's farm. His philanthropy supported the Polsky Center for Entrepreneurship and Innovation. He is survived by his wife, Colleen; a daughter; two sons; his mother and father; a sister; and three brothers.

2010s

Henry Calderón, AB'11, died of cancer November 24 in Sacramento, CA. He was 30. An English major and a crew team member, Calderón dedicated time at UChicago to working with elementary school children, helping them nurture a passion for reading. After graduating, he returned to his home state of California to care for his young daughter, Mariana Rose. He is survived by his daughter, his parents, and a sister.

CLASSIFIEDS

SERVICES

Delahoyde Projects is a full-service production company but one that's immediately scalable to fit any size project and budget. Have a quick idea that needs to be pulled off in a week? Have a massive commercial you need a cast of dozens for, and an equally big crew? From epic spots to corporate industrials and testimonials, short form comedy films to complex motion graphics, we've done it all, on time every time and always on budget. See thehoyde.com.

Chicago improv workshops: Build confidence, improve communication, and foster teamwork using the tools of improv comedy. We'll design a custom workshop to suit your group's needs and goals. Past clients include UChicago's Center for Latin American Studies and Divinity School. Led by veteran improvisers Scott and Mark Piebenga. scottpiebenga@gmail.com.

REAL ESTATE

Relocating to Scottsdale/Phoenix? I am a top 1% agent in the state of Arizona and sell throughout the valley. www.wendyherst .com. 480.788.9404.

WANTED

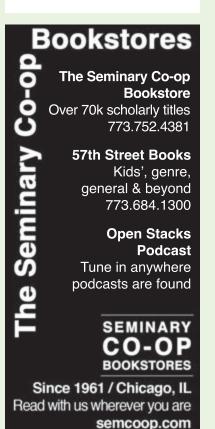
Donate to the University Archives: The Special Collections Research Center is looking to archive your memories and mementos from your years at the University of Chicago. Posters, broadsides, buttons, and ephemera from events, programs, protests, and demonstrations. Lecture notes from your favorite class. Photographsprint and digital—of campus activities. T-shirts and costumes from houses, parties, or fundraisers. Contact the archivists at universityarchives@lib.uchicago.edu.

What's on the bookshelf at Goodreads? Find great books written by fellow alumni and submit your own book information. Visit mag.uchicago.edu/alumni-books.

Help a student become WISR. A short conversation with a knowledgeable alum can change a UChicago student's life forever. The Alumni Association matches you with students and facilitates conversations, and you provide valuable advice. Join the network: uchicago.wisr.io.

Have photos from your UChicago days? The Magazine may be able to share them in Alumni News. Send high-resolution scans and your memories of what the pictures are about. Email: uchicago-magazine @uchicago.edu.







Join our mission for a humane Chicago, where every cat is a wanted cat.

hydeparkcats.org

A registered 501(c)(3) organization.

Chicago Classifieds Reach 165,000 Readers

AD RATES \$3 per word, 10-word minimum.

DEADLINES July 1 for the Summer/20 issue. To learn more, visit mag.uchicago.edu/advertising.

ADVERTISING CATEGORIES (Check one.)

☐ For Sale ☐ Professional Services ☐ Events □ Real Estate □ Personals ☐ Rental □Wanted

Name

Daytime Phone

Email

HOW TO SUBMIT

To place a classified advertisement, send this form and your typed ad to the Magazine staff via email: uchicago-magazine@uchicago.edu.

Unfortunately we are no longer able to accept credit cards, so you will be contacted regarding payment by the Magazine staff.

For more information and other advertising opportunities, visit mag.uchicago.edu/advertising.

THE UCHICAGOAN Harold Pollack

Questions for the SSA professor, health policy expert, and prolific tweeter.



What surprising job have you had in the past?

I have had many jobs, ranging from janitor to electrical engineer. My family can't quite believe that I keynoted a personal finance conference in Vegas last year.

What do you hate that everyone else loves?

Fine dining and vacations. If you asked how much I would be willing to pay for the absolute finest meal of my life, I might say \$30. The whole concept bores me. And I want other people to take vacations and to leave me alone.

What do you love that everyone else hates?

Cheap hotel rooms along the highway. They have free Wi-Fi and decent breakfast.

What book changed your life?

Theodore White, *In Search of History: A Personal Adventure*. A memoir by a political journalist. The first book I bought with my own money. This was quite brave, since I had a serious crush on the bookstore cashier in my small town.

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

When I was a struggling assistant professor, a colleague reminded me of the fundamental equation: (Words per minute) x (Minutes spent writing) = Words on the page.

Who was your best teacher, and why?

I have been blessed to have many fine teachers who respected and pushed me. But I'd have to say that my best teacher was my dad. I was struggling as a teenager to grasp the basic theorems of multivariable calculus. So my dad grabbed a balloon and filled our bathtub with water. He then provided a virtuoso impromptu explanation in terms of the currents swirling around the incompressible water, and how this differed from the way air squished inside a balloon passes through a hole in the side. He

balloon passes through a hole in the side. He had the engineer's physical intuition for what the theorems meant for his work. He's always communicated that there was nothing he'd rather do, no more enjoyable use of his time, than to share these insights with me.



Give the gift that gives back.

Support UChicago with a charitable gift annuity.

A charitable gift annuity is a gift of \$10,000 or more in cash or securities in exchange for your choice of immediate or deferred annual payments to you and/or another beneficiary for life. Payments are fixed and fully backed by the University, and you receive an immediate tax deduction with the potential for other tax savings.

AMERICAN COUNCIL ON GIFT ANNUITIES RATES Single-Life Charitable Gift Annuity

AGE	IMMEDIATE PAYMENT	DEFERRED 5 YEARS	DEFERRED 10 YEARS
55	4.0%	5.0%	6.4%
65	4.7%	6.0%	8.0%
75	5.8%	8.1%	11.0%

Your annuity rate is based on your age and chosen payment type when you make the gift. Rates are subject to change.

Interested?

Calculate your payments at **giftplanning.uchicago.edu/calc** or apply now at **giftplanning.uchicago.edu/cgaapp**.

Learn more.

Visit giftplanning.uchicago.edu Email giftplan@uchicago.edu Call 866.241.9802



Is it possible to feel nostalgic the first time you visit a place?

KIAWAH GETS YOU

A Curated Collection of Homes and Homesites with Club Memberships in the Heart of the South Carolina Lowcountry.

kiawahisland.com/ivyleague | 866.312.1791



Obtain the Property Report required by Federal Law and read it before signing anything. No Federal or State agency has endorsed or judged the merits of value, if any, of this property. This is not intended to be an offer to sell nor a solicitation of offer to buy real estate in any jurisdiction where prohibited by law. This offer is made pursuent to the New York State Department of Law's Simplified Procedure for Homeowners Associations with a De Minimis Cooperative Interest (CPS-7). The CPS-7 application (File No. HO16-0007) and related documents may be obtained from the sponsor. This project is registered with the State of New Jersey Department of Banking and Insurance Real Estate Commission. Obtain and read the NJ Public Offering Statement before signing anything (NJ Reg#16-15-0011 and 0012). An affiliate of Klawah Partners.