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THE UNIVERSITY **CHICAGO** MAGAZINE

SEPT-OCT 2014 **VOLUME 107, NUMBER 1**



A frog swims to the surface at the Marine Biological Laboratory, which formed an affiliation with the University last year. See "Natural Connection," page 24. For more on frog research at the **MBL's National Xenopus** Resource, go to mag .uchicago.edu/frogs. Photography by Daniel Cojanu.



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EDITOR'S NOTES

Volume 107, Number 1, Sept-Oct 2014

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Autumn rites

BY LAURA DEMANSKI, AM'94

nthis issue, several alumni write about rites of passage. One essay, by **Lisa K. Harris**, AB'82, MBA'84, describes a mother's mixed feelings on bringing her daughter to begin a life in the College four Septembers ago (page 52). Another, by **Susie Allen**, AB'09, documents a less formal rite: the discovery and cultivation of an identity-

forging campus hangout (page 50). Because this is the University of Chicago, Allen's adopted spot was, naturally, in the Reg—but read her piece to be reminded of how many different things that can mean.

Depending on which part of the University you attended and when, your rites may vary: official or unofficial, solemn or frivolous. Pritzker students have their white coat ceremony, the Law School its musical. As a first-year graduate student in English, I got dressed up in February for a departmental semiformal in Ida Noyes. It sounds strange, and the Snowball, though loved, didn't survive the '90s (maybe not even the mid-'90s). Sometimes it's the least lofty, most evanescent rites that bind us to a place.

But sometimes not, if alumni memories of the august Aims of Education address, delivered to first-year College students each Orientation Week, are any indication. In the last issue, alumni award recipient **Bret Stephens**, AB'95, recalled his year's address (Glimpses, July-Aug/14) and how it gave him a crucial sense of belonging to UChicago from almost the moment he set foot on campus.

In this issue, "In Search of Words Lost" by **Wayne Scott**, AB'86, AM'89, reflects on the Aims of 1982, when Scott was a nervous first-year (page 44). It's striking to find him at-



Deep in thought during the 2013 Aims of Education address.

taching the same sentiment to the occasion as Stephens, in some of the same words—and here too with unmistakable emotion.

The Aims of Education address suggests what it means to be part of a larger tribe. In the 52nd Aims on September 23, former University president **Hugo Sonnenschein** will, like those before him, speak to students' minds in examining what it means to be truly educated. But for many in the audience, if Stephens's and Scott's experiences are representative, the evening will be food for feeling as well as thought, and the beginning of a lasting attachment.

Which UChicago rites were meaningful to you? Tell us at uchicago -magazine@uchicago.edu.

FOND FAREWELL

This month the *Magazine* says goodbye to alumni news editor **Katherine Muhlenkamp**, who is expecting a baby girl later this fall. Kate, who joined the Alumni Relations and Development Communications staff in 2007, has been the able editor of the Peer Review section since October 2012 and a contributor of stories including this issue's Legacy (page 34). She will be greatly missed. ◆

LETTERS

Lasting impressions

Besides the Aspen Institute ("Elevated Discourse," July-Aug/14), the University also had an Aspen presence in a summer session of Humanities I, the first course in the humanities sequence of the old College. I was privileged to be a student in the course in 1956, just after graduating high school. Joshua Taylor led a very young and enthusiastic group of students in discussions that continued

More than 50 years later I can appreciate Dr. Taylor's patience and skill in guiding us.

after class and into our free afternoons in town or in the mountains. More than 50 years later I can appreciate Taylor's patience and skill in guiding us in the course and in suffering our pranks and excursions.

Another item in the same issue notes the death of Willard Visek,

MD'57, who was assistant professor of pharmacology at UChicago. My first lab experience was gained working for him. After a career in the lab I appreciate his patience and care dealing with an absolute, and somewhat clumsy, beginner.

Michael Edidin, SB'60

BALTIMORE, MARYLAND

Westward civ

I enjoyed reading about the Aspen Institute (July-Aug/14). Names such as Mortimer Adler and Robert Maynard Hutchins rang a bell, since I was a UChicago graduate student from 1948 to 1952. However, I noticed what I believe to be a flaw in the program of the institute: it doesn't address some of the nonsocial problems facing the United States. For example, although we are a major technological nation, we are among the very few nations left that are not on the metric system, the other two being Liberia and Myanmar. In contrast, our neighbor to the north, Canada, made the switch more than two decades ago. Thus the nation of the American Revolution is less revolutionary than its one-time Tory neighbor, despite all that reading of the Declaration of Independence at the institute. How come? Another issue: every year this country suffers substantial and tragic losses due to tornadoes. Shouldn't there be a discussion about funding antitornado research so we can better address this problem? Ditto about wildfires. While I am sure the Aspen Institute makes a contribution to the intellectual and cultural attitudes of the participants, it does not make the contribution to the nation that it could be making if it looked at a wider range of problems facing our nation today.

Frank R. Tangherlini, SM'52 SAN DIEGO

Global viewer

Regarding the interview with Bret Stephens, AB'95 (Glimpses, July–Aug/14), what blows my mind is that this extraordinary individual was first attracted to UChicago and after graduation maintains the intellectual values

of the University in his work. Regular readers of his column will note that it not only is like participating in a graduate world affairs seminar but, with its frequent casual illuminating literary references, reassures the reader that his/her intelligence is being respected.

Herbert Caplan, AB'52, JD'57

In the *Magazine*'s puff piece lauding *Wall Street Journal* editor Bret Stephens we learn that he considers the Iraq War "still worth supporting" and that he believes "in the idea of America as a world policeman" lest we "get ... chaos and anarchy" like in "the 1920s and '30s."

Perhaps in the future Stephens will use the journalistic skills that earned him the U of C's Professional Achievement Award for distinguished alumni to describe just what years of American intervention have brought to Iraq, Libya, Syria, Afghanistan, Pakistan, and Yemen.

John K. Taylor, AB'68

Sea change

A funny thing has happened to the University of Chicago and its graduates. When I was an undergraduate it was decidedly unpopular to support the government and the Vietnam War, not because anyone argued that the war made no sense, but possibly because my peers were themselves disinclined to put their lives on the line or, like Dick Cheney, they had "other priorities." Today, however, I note that my antiwar classmates are completely invisible as the United States curtails civil liberties while fighting self-destructive wars in places where our nation has no genuine interests.

I also note that the U of C culture itself appears to have changed for the worse, with the institution uncritically promoting statist viewpoints that it would almost certainly have eschewed in the 1960s. I recall that Straussian future Pentagon enablers of war with Iraq Paul Wolfowitz, PhD'72, and Abram Shulsky, AM'66, PhD'72, were U of C products, but they and their viewpoints were not discernible on campus. Today neoconservatives appear to have established a foothold, at least if one judges by the pages of the alumni magazine. Law professor and

BLAST FROM THE PAST



To the editor: I wish to protest in the most violent terms against the establishment of Alonzo Stagg scholarships in the College. To preclude the (shudder) possibility of disasters such as the return of football to the University of Chicago I suggest that the Stagg Field be turned into a parking lot without delay.

—Herman W. Chew, SM'58, PhD'61, Jan/64

unitary executive booster Eric Posner, LAB'84, pops up regularly, and the most recent issue featured alumni award recipient Bret Stephens, whose war-without-end journalistic credentials include the Ferusalem Post, Commentary, and the Wall Street Journal.

The May-June/14 issue included a story about a panel defending government secrecy ("Disclosures," Marketplace of Ideas). Going back a few years, David Brooks, AB'83, a Canadian-born neocon, also received a distinguished alumni award, and I recall that Bill Kristol has spoken on campus. I am not for a second suggesting that neoconservatives or government spokesmen should in any way be banned from campus, but I am disturbed to note that there doesn't seem to be much open criticism of the national security state at the University if one goes by what is reported in the Magazine.

> Philip M. Giraldi, AB'68 PURCELLVILLE, VIRGINIA

Beyond Becker

During my graduate years at the University, 1965 to 1970, I became aware of Gary Becker's (AM'53, PhD'55) paper on economic incentives as determinate in choice of mate ("Human Capitalist," July-Aug/14).

At the time, I lifted a skeptical eyebrow, as a psychologist, wondering what he had left out of his theory. Today the New Yorker (July 21, 2014) quotes the new Fed chair Janet Yellen on her husband's, the Nobel laureate Robert Akerlof, current interest in "identity economics." The writer, Nicholas Lemann, explains, "this is the study of how people's conceptions of who they are, including race, gender, and ethnicity, can shape their lives and decisions more than standard economic incentives." This, too, is my experience.

If this is a straw in the wind, I welcome it. Perhaps this is the beginning of the end of dark Hobbesian economic explanations.

Helen E. Hughes, PhD'70 BELFAST, MAINE

Multiplicity

My twin and I are AB'86 and I think we were the only multiples for the four and a half years we attended the College. Reading Anne Ford's (AM'99)

story ("Multiple Choice," the Core, Summer 2014) made me so happy for all of the twins and trips who are attending the U of C, as well as any other postsecondary choice multiples are making who choose to stay together.

The thought of being away from Mary for college never crossed my mind. We lived across the hall from each other on Tufts in Pierce (a moment of silence, please), and then we shared an apartment together off campus until we graduated. We are high school special education teachers in neighboring suburban school districts outside of Chicago and have always lived within 15 miles of each other.

Thanks for writing this story!

Kate Tax Choldin, AB'86 MORTON GROVE, ILLINOIS Mary Tax Choldin, AB'86 EVANSTON, ILLINOIS

I just read the great piece on multiples in the Core. People often ask me if twins should go to college together or what the frequency of joint attendance is. No one knows. It is a study that should be done and perhaps I will do it someday. I do advise twins not to

sit together in class, however. I have been an expert witness in a number of cases involving accusations by professors of twins cheating because they turn in similar work. I always support the twins.

By the way, finding 16 sets is not surprising given the rise in twin births—mostly fraternal, however, due to moms having kids later and the availability of assisted reproductive technologies.

Nancy L. Segal, AM'74, PhD'82 FULLERTON, CALIFORNIA

Segal is the author of Someone Else's Twin: The True Story of Babies Switched at Birth (Prometheus, 2011) and Born Together—Reared Apart: The Landmark Minnesota Twin Study (Harvard University Press, 2012). Read the Magazine's Mar-Apr/12 profile of her at mag.uchicago.edu /science-medicine/twin-studies.—Ed.

Indirect discourse

I was pleased to see the profile of Carl Van Vechten, PhB 1903; I was unaware that he was a graduate of the College ("Bon Viveur," the Core,



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Summer 2014). No doubt many readers were mystified by the very oblique reference to Van Vechten's bestknown work, Nigger Heaven (Knopf, 1926). Your journal is aimed at the broad University of Chicago community, whose members ought to be able to place the use of an offensive racial epithet within the context of its time. The spirit of free intellectual inquiry would seem to dictate against suppressing the book's title.

> Robert W. Blythe, EX'72 CHICAGO

Resident mentor

Alma Lach, EX'38, changed my life ("Food Life," the Core, Summer 2014). I was a freshman living in the Shoreland dorm. The Lachs were resident masters. My roommate and I attended an event in the Lachs' apartment where the author Richard Stern spoke, and we had a chance to meet and talk with the Lachs. I must have made some kind of impression, because to my surprise, I subsequently received a phone call from Mrs. Lach (she was always Mrs. Lach to me, even after I graduated; it took a long time to bring myself to call her Alma) asking if I would like to assist her with future such events. I was delighted to accept.

She always did the cooking, but she taught me how to set a table, how to load a dishwasher, and, yes, how to make a gin and tonic. At some point it became apparent to me that I was going to have to leave school because I could not afford the whopping \$5,000 annual tuition plus room and board. I mentioned this to her once and, again to my surprise, some time later I received a call from her husband. He needed a research assistant and asked if I would be interested in the job. His chair would fund my tuition for the remainder of my time in the College. While a junior, I met my future wife and introduced her to the Lachs; after I graduated, she continued as Donald's (PhD'41) research assistant.

We continued to stay involved with their social events throughout our College years and met so many interesting people. After graduation we kept in touch, and when we last saw her, she seemed as vital as she did all those years ago when we were College students. She shared with us many of her Photoshop creations, featuring pictures of our children that we had sent her.

Without Mrs. Lach, there would have been two fewer College graduates. This year Sondra, AB'86, AM'87, and I established the Donald and Alma Lach Resident Masters Fund at the College to support resident masters' programming that maybe can change the lives of future students, as Alma changed mine all those years ago.

> Stuart Feldstein, AB'84, 7D'87 BONDURANT, IOWA

SOCIAL UCHICAGO



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Michael R. Strain @Michael RStrain • Jul 13 A lovely essay remembering Gary Becker, by @SteveCicala: A theory of the allocation of a Nobelist's time http://bit.ly/1pB7rtQ



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Disappointed

It is truly dispiriting to read that a nonfaculty staff member of the Oriental Institute has described Egyptian human and animal remains as mere "spare parts" in an insensitive interview ("Mummy Figures," Fig. 1, UChicago Journal, July-Aug/14). The peculiarly lowbrow tone continues with reference to Egyptians as "these guys" and the institute's artifacts as "this stuff." For the record, our preserved "monkey's paw" is not "straight out of Edgar Allan Poe"; it is straight out of W. W. Jacobs.

Robert K. Ritner, PhD'87 Professor of Egyptology Oriental Institute, Near Eastern Languages and Civilizations, and the College CHICAGO

What Hutchins meant

I was disappointed to see Frederick Lehrer's (MBA'64) letter in the July-Aug/14 issue, in which he propounds the myth that Robert Maynard Hutchins opposed the GI

Bill in 1944 out of elitism. I find that people who bash Hutchins for his criticism of the GI Bill-invariably using the single quote that Lehrer takes out of context-have usually not read his article in the December 30, 1944, issue of Collier's. (It may be read online at unz.org/Pub /Colliers-1944dec30-00020.)

To quote the article, "As for the higher levels of education, they remain the preserve of the relatively rich. Before the war only 14 per cent of young people of college age were in college. Repeated studies have shown that these students were not the best; they were the richest. The factor determining the educational opportunities of the young American is the money he can afford to spend on them.... The G.I. Bill of Rights recognizes this fact and incorporates into our national policy the principle that there must be no relation between the education of a citizen and the income of his parents. It would be a tragedy if this principle were discredited, because the rest of the educational provisions of the act are unworkable. As the act stands, it threatens to demoralize education and defraud the veterans." He goes on to suggest that many veterans would use the GI Bill only in order to get training for jobs, and that many of those enrolling for vocational training would in effect be defrauded, just as "in the depression year of 1934, 150,000 students finished their schooling in bookkeeping, and 36,000 new bookkeepers were hired." And "other agencies, in other ways, must tackle and solve the problem of mass unemployment."

Clearly Hutchins was not espousing an elitist viewpoint; indeed he was emphatically advocating universal access to higher education, a consistent theme throughout his life. At the same time, though, he was concerned that there could be a depression following the second World War, as one had followed the first World War, and that returning GIs who used their educational benefits for vocational training would be left without a job, while colleges and universities would have cynically taken the GI Bill money.

> Bob Michaelson, SB'66, AM'73 EVANSTON, ILLINOIS

As a student in the College, 1945-47, and a veteran badly wounded in WW II in the liberation of France from the

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IFTTFRS

Nazis, I found the University totally welcoming to veterans, President Hutchins genial and courteous. I believe that Hutchins's fear about the future of education in 1944 was that scientific, technological, and careeroriented interests would overwhelm the classical, humanistic great books programs in which he so strongly believed. In the long run, his fear has been justified. Humanities and classical education are dominated now by career-oriented programs at so many universities and colleges. Computer science is a central theme.

Moreover, Hutchins gave the University in those postwar years sterling leadership in the search for a just and peaceful world. He called for a national conference on the meaning and impact of the atomic bomb. Important national leaders attended. Out of that conference came a proposal for a world government, the kind of bold thinking scarcely recognized or understood today. The University in those years was a wonderful place for creative efforts. Radical speakers were heard, Paul Robeson for one. The liberal veterans' group the American Veterans Committee had a chapter there. There were stirrings for racial equality.

My understanding of the world today, the books I have written, the articles published, all seeking some grasp of war and peace, violence and compassion in America, are rooted in those great years in the College and an education that Hutchins gave me. Today, at 89, I return again and again to the readings I had then: Sophocles, Plato, Dostoyevsky. It is those readings that have helped give me the strength and understanding to survive these 70 years of turmoil and struggle since my wounding in 1944. As a veteran of that war, I am forever in gratitude to President Robert Maynard Hutchins.

Edward W. Wood Jr., PhB'47 DENVER

Less left

Pamela Cook, AM'05, relates that on the day after President Bush was reelected, an "obviously angry professor" devoted a whole class period to "ranting about the evils of the Republican Party" (Letters, July-Aug/14). When Ms. Cook objected to the partisan lecture she was insulted by fellow students with the professor's tacit approval.

In defense of the University, it can be noted that these and other alleged incidents occurred in the School of Social Service Administration, Social work classes are not typical of graduate programs. The field has always had a left-liberal outlook but seems to have taken a further turn toward political activism after President Clinton's "end of welfare as we know it." The National Association of Social Workers has demanded since 1996 that social workers promote social justice "from local to global levels," and their idea of social justice would of course differ from Milton Friedman's (AM'33). If one Googles "The Scandal of Social Work Education," one will find accounts of courses devoted to "the global interconnections of oppression," "strategies of empowerment practice," "oppressive structures," and "political advocacy as a form of mobilization."

But the current course descriptions on SSA's website are about helping individual clients, with no postmodernist jargon. The only exception is a course on the impact of torture on people "marginalized by the larger (privileged) society because of their gender, race and age." Ms. Cook would probably have had a worse experience in most other social work programs.

Full disclosure: my late mother was a social work student at the U of C before I was born. She fondly remembered a formidable dean whose first name was Sophonisba.

> Malcolm Sherman, SB'60, SM'60 ALBANY, NEW YORK

Sophonisba Breckinridge, PhM 1897, PhD 1901, JD 1904, was dean of the Chicago School of Civics and Philanthropy from 1909 to 1920, when it merged with UChicago to form SSA, and was Samuel Deutsch Professor of Public Welfare Administration at SSA.—Ed.

Historic link

The July-Aug/14 issue makes note of the University's recent affiliation with the Marine Biological Laboratory in Woods Hole, Massachusetts ("Going Public," UChicago Journal). Readers should have an interest in a

My understanding of the world today is rooted in those great years in the College and an education that Hutchins gave me.

much older link, albeit less formal, now more than a century past. Woods Hole was the training ground and vital resource for some of Chicago's earliest stars in the biological sciences.

Before me as I write this is C. Judson Herrick's George Ellett Coghill: Naturalist and Philosopher (University of Chicago Press, 1949). An autobiography of the author and biography of his mentor, both members of Chicago's pioneering faculty in biology, the work is a much neglected contribution to understanding the incubator role of facilities like Woods Hole.

We should be especially proud of this affiliation. Only the Marine Biological Laboratory in Naples, Italy, is its equal, now and a century ago. Read The Tragic Sense of Life (University of Chicago Press, 2008) by Robert J. Richards, PhD'78, the Morris Fishbein Distinguished Service Professor of the History of Science and Medicine at UChicago. While the book is focused on the life of the German Darwin, Ernst Haeckel, interspersed is an account of the Italian laboratory's role in social struggles that shaped Darwinian theory, to which should be added the modern toxic waste controversies over the Lancet-labeled Triangle of Death near the Bay of Naples. (My personal title for both strands of time: Parrots in a Cage and the Identity of Fact.)

FYI: this is being written fourtacks-to-the-wind (on a good day) from the pier of another great institution, the Chesapeake Biological Laboratory.

> Sheldon W. Samuels, AB'51 SOLOMONS ISLAND, MARYLAND

For more on the MBL affiliation, see "Natural Connection," page 24.—Ed.

Room for debate

I was rather surprised that the Magazine devoted several pages to a discussion between national security experts Tweedledee and Tweedledum ("Covert Affairs," May–June/14) and placed this under the heading Marketplace of Ideas. Tweedledee, also known as George Little, was a spokesman for the CIA from 2007 to 2011, and then for the Department of Defense until last year. Tweedledum, also known as Tommy Vietor, was a spokesman for the White House National Security Council.

Little breaks the news that openness and secrecy are inevitably in tension when it comes to reporting governmental conduct and avers that "I have a bias toward openness." Yet immediately afterward he insists that "there are some things that need to be secret and remain secret." His twin also has a bias toward openness: he was glad about the "conversation" that Edward Snowden's revelations initiated and believes that "trust is iust not a sufficient answer." Yet he brands Snowden's revelations as "unconscionable" and rules out clemency. Since these Tweedles are capable of finishing each other's sentences, the first one immediately chimes in, "I think the Snowden disclosures have done incredible damage." Might Marketplace of Ideas imply something other than having two men trying to sell exactly the same product? Would Daniel Ellsberg ever be invited by the insider-politico Institute of Politics to be interviewed about limits to violating the Fourth Amendment and international amity?

Robert E. Lerner, AB'60 EVANSTON, ILLINOIS

Cat people

I'm responding to "Non-crazy Cat Lady" (the Core, Winter 2014). Living a mobile lifestyle historically meant for us no pets ... until we visited Seattle's humane society in 2009. With the rise of the Internet and the ability to show photos of cats waiting to be homed, the staff promoted fostering, a concept new to us. My husband, Tod, and I jumped at the opportunity, and Fiona came into our life. We felt like cat whisperers, cooing and petting until frightened Fiona learned to trust us and became "home-able." Watching her in the arms of two autistic boys whose family adopted her was a peak moment! Now living in

London, we foster through the Cat Protection League. Cats stay with us from a few days to several months. We'll take two at a time. It can be heartbreaking when someone moving into a flat has to say good-bye to a well-loved cat, or when we receive an abused cat, but it's always fabulous to watch them transform into loving and lovable felines (we've had only two who resisted rehabilitation) and melt the hearts of their next owners when they meet. Lately we've been reading up on dog fostering. Who knows what the future will hold.

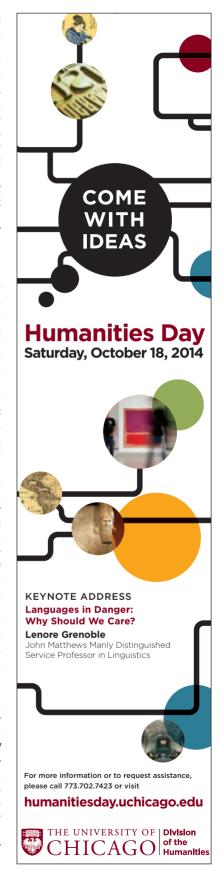
Ana Gobledale (née Dale), AM'77 LONDON

Corrections

There were a number of problems with the UChicago Journal story in the July-Aug/14 issue of the Magazine on the work of Wendy Doniger, the Mircea Eliade Distinguished Service Professor of the History of Religions in the Divinity School. The story was not up to our usual editorial standards, had an inappropriate headline, and was published without the knowledge of the individuals participating in the event on which it reported. The story incorrectly reported the status of Doniger's 2013 book On Hinduism, whose Indian publisher, Aleph Book Company, received a demand to cease publishing from Dinanath Batra, similar to what he had sent to Penguin India regarding Doniger's 2010 book *The Hindus:* An Alternative History. On Hinduism was never withdrawn in India; it was reprinted this spring, unchanged, and is available.

The *Magazine* apologizes for publishing the story and for any misperceptions it may have created, and has taken steps to prevent such mistakes in the future.

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. Write: Editor, The University of Chicago Magazine, 5235 South Harper Court, Suite 500, Chicago, IL 60615. Or email: uchicago-magazine @uchicago.edu.





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UChicago Journal



ECOLOGY

Energy wise

What does it take to build an ultra energy-efficient research facility?

In his initial contact with a prospective client, **Michael Klinger**, AB'80, knew only that the man represented

an entity interested in constructing a passive house in southwestern Michigan. "Wouldn't tell me who they were," he says.

All the potential customer knew about Klinger, meanwhile, was that he owned Lansing, Michigan—based Energy Wise Homes, one of the few builders in the state certified in the ultra-efficient standard. Around Thanksgiving 2010, discussions had progressed to the point that the client could show his hand. That's when the project became something of a personal crusade for Klinger. "The emotion

was one of just sheer elation," he says, when he learned that the interested party was the University of Chicago. "I might get to build a passive house for my alma mater."

As it turned out, he did more than that. On July 25 the Department of Ecology and Evolution dedicated the Warren Woods Ecological Field Station in Berrien County, Michigan—just the fifth passive house in the world that contains a laboratory and the first in North America.

A passive house is a building that incorporates materials, construction

techniques, and geographic orientation that allow for extremely low energy usage. To retain heat generated from the sun, electrical equipment, and occupants themselves, a passive house must use advanced insulation, windows, and doors that make it nearly airtight.

"It is the leading edge of sustainable building in the world," but relatively rare in the United States, says Alison Anastasio, SM'05, PhD'09, manager of graduate research, education, and outreach for ecology and evolution.

Only about 70 miles from the campus, the area has long attracted UChicago scholars, but the new facility plants permanent roots and makes field work accessible to more faculty and students. They will study biodiversity, evolution, genetics, and ecological interactions between species there. Several types of habitat in the area are under ecological restoration, including lowland hardwood forest, climax beech-maple forest, and remnant wet prairie. Fenced plots on the property offer botanical research opportunities. In addition to the lab, there is space for classes and seminars.

The field station received certification from the Passive House Institute in Darmstadt, Germany, Nothing like the 2,400-square-foot facility had ever been built outside Germany, and the architects had to overcome logistical obstacles to meet the institute's requirements. Incorporating hightech research equipment such as deep freezers and growth chambers was the least of it.

Accounting for an inconsistent flow of people complicated the calculations to achieve the standard of



Cowles blazed an ecological trail.

less than 15 kilowatt hours per square meter in annual energy use for heating and cooling. "You could have 35 people in here at max occupancy for a class. It could also be just a couple of scientists, or no one for months on end," says Tim Lock, an architect from Belfast, Maine-based firm GO Logic, which designed the building.

During extended vacancies—wintertime, mostly-ongoing experiments will require the lab equipment to keep operating. According to the firm's estimates, heat generated from those experiments will be nearly enough to warm the building yearround. "We'll have cooling," Lock says, "but we probably won't really ever use the heating."

One of the few elements the architects would not have incorporated into a residential passive house, in fact, were window screens to limit solar heat accumulation when classes or other large groups use the facility. Under standard construction codes, a building of the same size and layout would cost about \$3,000 a year to heat. For the field station, those costs are expected to be \$200-300.

Three cabins built alongside the field station make extended stays possible. The "two-and-a-half season cabins," as Anastasio describes them, weren't built to passive house standards, but they add to the modern conveniences at a site with a lot of UChicago ecological history.

Henry Chandler Cowles, PhD 1898, known as the father of modern ecology, studied around here. Cowles developed his influential theory of ecological succession in the dunes around Lake Michigan and often brought students to conduct experiments on and around the field station's 42-acre property.

The dense woods encircling the new building look much like what Cowles must have seen. Given the nature of their work, his academic heirs feel especially protective of the bucolic setting. It's a departmental priority-and, now, a point of pride-that the field station tread lightly.

"I'm glad they made the commitment to this, and I look forward to seeing their enjoyment of this facility," Klinger says. "I think this is going to be a really lovely place to work."

—Jason Kelly

UNIVERSITY NEWS

Policy revision

The University implements changes in its approach to sexual misconduct and discrimination.

On July 1, three changes took effect in the University's approach to unlawful discrimination and sexual misconduct. The latest step in the continuing effort to prevent sexual misconduct on campus, and to address problems quickly and effectively, the changes take into account both the particular needs of the University community and the best practices nationally.

"Sexual misconduct and unlawful discrimination are unacceptable and antithetical to the University's core value of open inquiry," said Provost Eric D. Isaacs in a statement. "We remain committed to allowing our students and scholars to participate fully and freely in our academic community. Taken together, we believe these changes in policy, disciplinary process, and staffing represent an important milestone in the University's continuing efforts to fulfill that commitment."

At the recommendation of an ad hoc faculty-student-staff committee appointed in March, two existing policies addressing these issues were joined into a single Unlawful Discrimination and Sexual Misconduct Policy that applies to all members of the University community. Posted at unlawfulharassment .uchicago.edu, it clarifies and unifies the University's stance and delineates new categories of sexual misconduct as defined by the federal government.

Also as of July 1, disciplinary processes for allegations of student sexual misconduct and unlawful discrimination will be the purview of a University-wide disciplinary committee. Isaacs will appoint faculty members from all schools and divisions of the University to serve on the committee, along with staff and student representatives. Members will receive training to prepare them for the complexities and sensitivities of sexual misconduct and unlawful discrimination cases.

The University has also hired Jeremy Inabinet in the new position of associate dean of students for disciplinary affairs, effective September 22. He will bring specialized expertise to investigate allegations of student sexual misconduct and unlawful discrimination, and advise leadership on best practices for prevention and education.

Filling that role on an interim basis, Kenyatta Tatum Futterman has been appointed special assistant to the dean of students in the University. Futterman, who serves as an adviser in the College during the academic year and has worked with students in the College since 2010, has experience in private practice family law, providing legal assistance to survivors of domestic violence. She previously represented criminal defendants as an assistant federal defender.

This January, the US Department of Education Office for Civil Rights (OCR) informed the University that it wanted to gather more information in connection with a student complaint filed in March 2013. UChicago is one of more than 70 colleges and universities that OCR is investigating for their handling of sexual misconduct cases. The University "has made every effort to comply with the spirit and letter of this inquiry, and will incorporate any OCR findings into its ongoing efforts to provide for the best possible campus climate," it said in a February statement. The University has addressed sexual misconduct and other forms of harassment and discrimination in a number of ways over the years, including annual revisions to the disciplinary systems and the creation of student support programs such as the Sexual Assault Dean-on-Call, the Bias Response Team, and Resources for Sexual Violence Prevention. The most recent changes in policy and process grew out of more than a year of deliberation and build on the work of faculty-studentstaff committees that established the Sexual Assault Policy in 2006 and reviewed policies and student disciplinary structures in 2006 and 2010.

In 2011, the disciplinary process was further modified to align it with guidance issued by OCR. Karen Warren Coleman, vice president for campus life and student services, said the

University will reach out to the community at the beginning of the autumn quarter to highlight the latest changes and provide updates.

"Through ongoing examination and deliberation by our deans, faculty, students, and staff, with particular attention to the experiences of those involved in sexual misconduct incidents and the resulting disciplinary processes, we believe we continue to improve the University's approach to such incidents," Coleman said. "In particular, these three changes help focus our efforts and bring a new level of expertise to bear."

LITERATURE

Language bearer

A German student, a South Asian language, a UChicago career.

Globalization produces curious collisions. Sascha Ebeling, a scholar of Tamillanguage and literature at UChicago, first encountered the South Asian language as a 16-year-old in Soest, the small German city where he grew up.

One afternoon in 1990, Ebeling and a friend went to a Tamil cultural festival in their town, one of many across Germany where Sri Lankan Tamils had settled as refugees from their country's civil war. An audience had gathered to watch a Tamil-language comedy. As they laughed, Ebeling didn't understand a word. He had decided to leave when a man sitting nearby offered to explain and translate the play.

Ebeling was hooked. The man, a refugee named Tharmarajah Suppiah, ended up teaching him Tamil informally and became a lifelong friend. The gregarious Ebeling was already studying English, French, and Latin at his German high school and taking evening classes in Spanish and Russian. When he met other Tamil refugees who had enrolled in German classes they found too hard, he developed his own materials and began teaching them on Sundays. "I gave them all German names, which they found hysterical," he rememWILLIAM RAINEY HARPER'S INDEX

SPORTS

Number of individual national championships UChicago athletes have won since 1989:

Number of individual titles won in 2013-14:

Swimmer Abby Erdmann's ('17) winning time in the 200-yard butterfly finals:

Pole vaulter Michael Bennett's ('16) winning jump, in meters:

Number of UChicago athletes who earned All-America status in 2013-14.

Final ranking in the Learfield Sports Directors Cup, which honors accomplishment in Division III athletics, the school's highest-ever finish:





Tamil language scholar Ebeling enjoys exploring uncharted territory.

bers. "I called them Hans and Georg and Johannes and whatnot; it was part of their cultural learning."

Tamil was once a regional language spoken mostly in the southern India state of Tamil Nadu and in Sri Lanka, Malaysia, and Singapore. But over the past 20 years, globalization and ethnic conflict have created a worldwide Tamil diaspora, with sizable communities in Europe, Canada, and the United States. About 70 million people claim Tamil as their first language, roughly similar to the number of those who speak Turkish, Korean, or Vietnamese.

Ebeling, now an associate professor in South Asian languages and civilizations, pursued his undergraduate and doctoral studies at the University of Cologne, a center for Tamil studies. (He also earned a master's from the School of Oriental and African Studies at the University of London.) During his first year as an undergraduate, when he expressed a wish for a German-Tamil dictionary, a professor roped him into helping create one. In a small field, he says, "if you want something you have to do it yourself."

That lesson shaped his career. "To this day I like doing things that other

people don't do," he says cheerfully. "I like to read the things that other people don't read." Ebeling surveyed more than 400 works to write his first book, Colonizing the Realm of Words: The Transformation of Tamil Literature in Nineteenth-Century South India (SUNY Press, 2010). The study documents the shift from traditional systems of literary production in south India-where poet-scholars wrote verses for religious and courtly patrons-to new styles, publications, and genres such as the novel.

Tamil, like Sanskrit, is one of the world's longest surviving classical languages, and the only modern, living Indian language with a documented 2,000-year literary tradition. Yet during the colonial period the British disparaged Tamil poetry and claimed in an 1845

report that "the vernacular languages ... are almost totally barren of what Europeans deem useful or substantial knowledge." Even today works written in Tamil and other South Indian languages-Telegu, Kannada, Malayalam-are not well-known outside of India. Ebeling believes these "hidden treasures" deserve more scholarly and popular attention.

"I have favorites from every period," he says. Among them are ancient Tamil poems of love and war, the fifthcentury Epic of the Anklet, and a grand epic poem from the 12th century called the Periyapuranam, which chronicles acts of devotion to the god Shiva. Ebeling admires 19th-century novelists Vedanayakam Pillai-author of the first Tamil novel-and Rajam Aiyar, as well as living writers such as Ambai (aka C. S. Lakshmi), whose fiction and academic work explore women's experiences, and the poet Cheran.

Ebeling is now working on a book about 21st-century Tamil literature and its creators, a global community of writers that includes women, refugees, Dalits, and hip-hop artists. Another project compares poetry written around the world in 1907. Beginning with "The Fallen Flower," a poem by

Kumaran Asan that inaugurated the modern period in Malayalam-a language closely related to Tamil-Ebeling then draws parallels with poems by Rabindranath Tagore, Guillaume Apollinaire, Rainer Maria Rilke, Rubén Darío, Endre Ady, and others. The focus on 1907, he says, "will help us to understand both romanticism and modernism better."

Because most Tamil literature has not been translated to English or other languages, Ebeling has had to maintain his do-it-yourself ethic. Some of the most powerful writing focuses on the Sri Lankan civil war, which officially ended in 2009 but continues to affect the Tamil minority. Ebeling has teamed up with Lakshmi Hölmstrom, an Indian-born British writer whom he calls "the most distinguished translator from Tamil alive," to translate a forthcoming anthology of poetry about the conflict. The two also edited and translated a collection of poems by Cheran, a Sri Lankan Tamil who lives in Canada, called A Second Sunrise (Navayana, 2012).

An energetic teacher, Ebeling offers advanced instruction in Tamil at UChicago and graduate seminars in literature, colonial fiction, and "how to do things with South Asian texts." He has led a faculty team to broaden the syllabus for the Readings in World Literature undergraduate Core course. Students now study the ancient Indian Mahabharata along with Homer's Odyssey and the Epic of Gilgamesh; they explore Sanskrit court poetry with Chaucer and The Tale of Genji.

At a Humanities Day talk last fall, Ebeling argued that ancient Greek and Roman texts are as alien and culturally remote to us today as any writings from South Asia. The solution is to banish all prejudice, concede that every literature merits close reading, and accept that every language-from Tamil to Tibetan—is worth learning. "World literature perhaps is not so much a set of books but rather a way of reading with an open mind," he says, "a form of reading that takes the specific place and time of the text seriously."-Elizabeth Station



FOR THE RECORD



EMINENT SCIENTIST Wendy Freedman, a worldrenowned astronomer who is chair of the Giant Magellan Telescope Organization's board of directors, has been named University Professor of astronomy and astrophysics. Freedman becomes the 20th University Professor and the seventh currently on the faculty. A designation for scholars considered among the most eminent in their fields, University Professors represent UChicago's highest academic aspirations. Now focusing on current and past expansion rates of the universe and the nature of dark energy, Freedman led the Hubble Key Project, which resolved a long-standing debate, establishing the age of the universe as 13.7 billion years.

ARTISTIC VISIONARIES

Longtime University supporter Joan Harris and Logan Center architects Billie Tsien and Tod Williams were among the National Medal of Arts recipients on July 28. Harris has extended the generosity of her late husband, Irving B. Harris, as a member of the Chicago Harris visiting committee, the Division of the Humanities visiting committee, and the University of Chicago Women's Board. She holds leadership positions with the Aspen Music Festival and School, the Juilliard School, and the Chicago Symphony Orchestra, and is a member of the Library of Congress Trust Fund Board. Previously Harris was commissioner of the Department of Cultural

Affairs for the City of Chicago and president of the Chicago Opera Theater and the Illinois Arts Alliance.

ECONOMIC DIRECTION **Economists Lars Peter** Hansen and Kevin M. Murphy, PhD'86, have been appointed cochairs of the Becker Friedman Institute for Research in Economics. Hansen, a 2013 Nobel laureate and the David Rockefeller Distinguished Service Professor in Economics and Statistics, will serve as the institute's director, leading its programming and operations. Murphy, a MacArthur fellow, 1997 winner of the John Bates Clark Medal, and Chicago Booth's George J. Stigler Distinguished Service Professor in Economics, will focus on public outreach and development. Hansen and Murphy succeed the Becker Friedman Institute's first chair, Gary S. Becker, AM'53, PhD'55, who died in May.



INAUGURAL DIRECTOR John Maunsell, editor in chief of the Journal of Neuroscience, has been appointed the inaugural director of the University's Grossman Institute for Neuroscience, Quantitative Biology, and Human Behavior. The institute will combine collaborative research. education, and patient care to advance understanding of the brain and human behavior. Previously the Alice and Rodman W. Moorhead III professor in neurobiology at Harvard Medical School, Maunsell has contributed

to our understanding of the mechanisms of vision and perception.



SUPPORT FOR HUMAN RIGHTS In recognition of a \$7.5 million gift in support of human rights education from Richard Pozen, AB'60, and Ann Pozen, the University has named its program the Pozen Family Center for Human Rights. Founded 17 years ago to incorporate human rights education into the College's core curriculum, the program also funds student and faculty research. Mark Phillip Bradley, the Bernadotte E. Schmitt Professor in History

and the College, will serve as

the center's faculty director.



MODEL COMPETITORS UChicago's Model UN team earned the title No. 1 in North America for winning all the competitions they entered. Outgoing president Eric Wessan, AB'14, led the team of 88 students, which included vice president Apratim Gautam, '15, and Nisha Bala, '15 (all three pictured above). Competitions involve simulations of traditional United Nations meetings as well as crisis situations with students often representing an

individual country's interests.



MUSEUM CAMPUS SOUTH Seven Hyde Park-area cultural institutions have formed Museum Campus South, a partnership to encourage citywide cultural participation. UChicago participants include the Smart Museum of Art, the Oriental Institute Museum, the Logan Center for the Arts, and the Renaissance Society, in addition to the DuSable Museum of African American History, Frank Lloyd Wright's Robie House, and the Museum of Science and Industry.



OUTREACH AND RESEARCH In July President Barack Obama announced \$10 million in new funding for research and programming by the University of Chicago Crime Lab and Urban Education Lab. The funds support education and antiviolence programs for Chicago's disadvantaged youth, including an expansion of Youth Guidance's Becoming a Man initiative and academic help from Match Education. Part of the new funding is a \$6 million grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development for the labs to conduct randomized controlled trials into the longterm effects on participants in such programs.





The medieval shrine of St. James in Santiago de Compostela has become the city's massive cathedral.

HISTORY

Novel pilgrim

A Divinity School historian's study of medieval Europe becomes a wellspring of historical fiction.

Traveling through northeastern Spain in 2003, Lucy Pick visited the church of Santa Maria in Santa Cruz de la Serós. An 11th-century Romanesque building, it stands along what was once a major pilgrimage route and originally served as a female monastery (a term that applied to both men and women) for daughters of the nobility. Pick, a medieval historian and Divinity School senior lecturer, explored the building's mysteries, such as the big room above the altar whose purpose isn't clear in historical records.

Pick was also exploring something else: a book of historical fiction that had been simmering in her imagination for years and that would allow her to "fill in the gaps" that history left open.

In July the novel, Pilgrimage, was released. Published by Cuidono Press, started by Martha K. Hoffman, AB'87, whose own PhD is in history, the novel takes readers on a journey with Gebirga, a blind woman, during the early 12th century. Gebirga travels from Flanders to the Spanish city of Santiago de Compostela, whose shrine-now a cathedral-was a major destination for pilgrims as the burial place of St. James the Apostle. The novel, Pick says, tries to "get into the skin of the an ordinary medieval person and to see their religious attitudes from the inside out."

Gebirga, Pick's protagonist, synthesizes two historical clues. The first: a passage in the medieval manuscript Codex Calixtinus, containing a pilgrim's guide to Santiago de Compostela, which traced the route from southern France to the holy city. The passage lists as one of book's authors a Gebirga of Flanders.

The second is the story of Saint Godeleva of Gistel, an 11th-century Flemish noblewoman. She was killed by her husband, and he was said to have had a blind daughter.

In Pick's novel, Gebirga loses her sight at about three years old; the last thing she remembers seeing is an argument between her parents, which

ended in the death of her mother, Godeleva, who is later beatified. When the reader first meets Gebirga, more than two decades have passed. With her father away in the Crusades, Gebirga has taken to running the household, and everyone expects that she will join the convent founded in honor of her mother, and which houses her sainted bones.

But through an accidental meeting with Katerinen, a count's daughter, Gebirga instead embarks on a journey through France and into northern Spain. The women join a group of travelers heading toward Santiago de Compostela on the pilgrim road, including two clerics writing a guidebook and a mysterious messenger with an unknown agenda. Along the way Gebirga and Katerinen form a deep bond, and the pilgrims face danger, tragedy, and unexpected revelation.

As an undergraduate at Queen's University in Ontario, Canada, Pick studied how women represented themselves in medieval treatises: she received a PhD in medieval studies from the University of Toronto in 1995. Her scholarly book, Conflict and Coexistence: Archbishop Rodrigo and the Muslims and Jews of Medieval Spain (University of Michigan Press, 2004), explores the dynamic between

Muslims, Jews, and Christians in medieval Toledo, Spain.

Pilgrimage began stirring in 1997 while Pick was finishing a postdoctoral fellowship at the University of Chicago. The 2003 trip, which she took with her sister Elizabeth, a clinical therapist ("She is a person who listens to stories," Pick says), helped propel the novel into being. Many of the medieval cities the sisters visited-Jaca, Loarre, and Santa Cruz de los Serós—appear in the book. The trip became, Pick says, "our own kind of pilgrimage."

In their travels, they were drawn to stories of women. One was Countess Sancha Ramirez, whose tomb in Jaca is decorated with a relief showing her flanked by her sisters, who were likely also nuns in the monastery at Santa Cruz, which the countess helped promote. "We usually think of medieval women in relationship to men," Pick says, "and here we have these women in relationship with each other."

In Pilgrimage, Gebirga visits the church of Santa Cruz and traces her fingers across the relief on Countess Ramirez's tomb (originally in Santa Cruz, it was later moved to Jaca, where Pick saw it), and she talks with the abbess about the possibility of Katerinen remaining there as a nun.

The endpoint of Gebirga's pilgrimage, Santiago de Compostela, is a place where Pick has not yet been. Someday, she says. Compostela represents a pilgrimage's end, and Pick is still in the middle of hers. Having finished a second historical novel, she's working on a third. "I think what I want to do is to keep on the journey and see where it takes me next."—Elizabeth Brandon



The cathedral's Pórtico da Gloria.

CITATIONS

WHEN IRRIGATION YIELDED DISEASE

Uncovering some of the earliest evidence of human civilization's effect on the environment, researchers found that agricultural irrigation in ancient Mesopotamia may have helped spread disease. Working with researchers from the University of Cambridge and the Cyprus Institute, Oriental Institute director Gil Stein discovered a 6,200-year-old schistosome egg in the pelvis of an ancient Syrian skeleton, the earliest known evidence of the parasite. It can cause anemia, kidney failure, and bladder cancer. Evidence of wheat and



Burial from the cemetery where the egg was found.

barley farms near where the skeleton was found suggests that the parasite thrived in the warm freshwater irrigation systems and infected humans wading in the channels. The research is published in the July Lancet Infectious Diseases.

LOVE VS LUST

Building on previous research showing that love and lust activate different parts of the brain, UChicago psychology research associate Stephanie **Cacioppo** studied the visual cues differentiating those two emotions. With UChicago psychologist John Cacioppo and Mylene Bolmont from the University of Geneva, she found that eye movements give people away: both men and women gaze at the faces of strangers they see as potential romantic partners and at the bodies of those for whom their desire is more sexual. In each case the judgment is almost instantaneous. "Although little is currently known about the science of love at first sight or how people fall in love," Stephanie Cacioppo said, these response patterns provide clues into the role that automatic processes such as eye gaze play in differentiating love from

lust. The study, published in the July Psychological Science, may help develop diagnostic tools for psychiatrists and couples therapists.

CHANCES ARE ...

Evolution is often shaped by rare chance events. Mass extinctions get a lot of press, but a minute protein mutation that took place eons ago was perhaps more profound and fundamental, according to a study by Joe Thornton, UChicago professor of ecology and evolution and human genetics, and University of Oregon scientist Michael J. Harms. Published online June 15 in *Nature*, the study shows how a mutation in the cellular receptor for the stress hormone cortisol allowed the protein-a key component of the endocrine system—to tolerate later mutations that led to its current function. The findings suggest that "many of our body's systems work as they do because of very unlikely chance events that happened in our deep evolutionary past," Thornton said. "If evolutionary history could be relaunched from ancestral starting points, we would almost certainly end up with

a radically different biology from the one we have."

THE WARMTH OF SOUTHERN SUNS

Biologists have long believed that migration first evolved in tropical birds traveling north in the summer to avoid competition and overcrowding in the warmer tropical regions. But research by biologist Richard Ree, of the Field Museum and the Committee on Evolutionary Biology; PhD student Benjamin Winger; and F. Keith Barker, PhD'99, from the University of Minnesota, contradicts this paradigm. Offering evidence that backs up the common folk wisdom about birds flying south for the winter, their study, which appeared online August 4 in Proceedings of the National Academy of Sciences, reports that most migratory songbirds are from the north, not the south. The researchers studied the lineages of approximately 823 species of North American songbirds and concluded that those with temperatezone ancestors were twice as likely to develop longdistance migration as those with tropical ones. - Minna Jaffery, '15, and Kathryn Vandervalk, '16





Jaeger's experimental setup includes a camera that drops in near free fall with the charged grains, capturing their interactions as they drop through an airless tube.

Powerful charges

What scientists don't know about static electricity might shock you.

Many children's first physics lesson is in static electricity—when they shock themselves on a doorknob after shuffling their stocking feet on carpet. But even children who grow up to be physicists don't understand exactly how static charges come about. "This is one of the most vexing yet unresolved problems that we have right now in materials science." says Heinrich Jaeger, the William J. Friedman and Alicia Townsend Professor in Physics. Now Jaeger and his research group have performed an experiment that might shed some light on that mystery.

The conventional theory describing static electricity states that when two dissimilar materials rub together, one transfers electrons to the other and both develop an electrical charge. The size of this charge depends on the materials used, but one will always lose charge and the other will always gain it.

What if the two pieces of material are identical? The theory predicts that, having the same properties, the two pieces should exchange equal numbers of electrons, and therefore neither should end up charged. But that's at odds with experimental evidence.

Jaeger's work has focused on insulating grains (static charges on metals are better understood). Insulating grains are technically solids but under certain conditions also have liquidlike properties. Sand, for instance, is solid enough that you can stand on a pile of it, but it flows through your fingers like water.

Part of Jaeger's research is to determine which of these materials' behaviors are solely due to mechanical forces, such as when the grains bounce off each other like billiard balls, and which are due to other forces, like static electricity. The static force may be small, but it carries big implications for any scientific or industrial process that depends on manipulating grains.

Five years ago Jaeger set out to test an alternative theory developed by Daniel Lacks at Case Western Reserve University: that electrons get transferred from large grains to smaller ones. Jaeger; Scott Waitukaitis, PhD'13; and Victor Lee used a 2.5-meter-long tube, emptied of air to cancel out any effect from air turbulence. The researchers dropped grains of zirconium dioxide-silicate (a nonconducting substance that acquires static charge well) in two different sizes

through an opening at the top. A highspeed camera, falling at the same rate, recorded each individual interaction between grains. An electric field in the tube separated positively charged grains from negatively charged ones.

Next the researchers tried to measure how much charge actually existed on the surface of the grains in the first place. They gently heated an unmixed sample of the grains, which caused each of the electrons trapped on their surface to release a single photon. Collaborating with a team at the University of Illinois at Chicago, they measured each emitted photon.

The results were inconclusive. Jaeger's team found that one aspect of Lacks's theory was correct: electrons had been transferred from large grains to smaller ones. However, the charge available on the surface of the grains was much too small to account for all the transferred charges—just 1/100,000th of the total static charge. Another mechanism was at work.

Jaeger hypothesizes that the bulk of the static charges were transferred not by electrons but by ions, such as hydroxide-water molecules that have lost an atom of hydrogen. A onemolecule-thick layer of water coating the grains would be enough to account for the observed charge. A competing hypothesis from researchers at Northwestern University suggests the charge comes from nanometersized chunks of material ripped from one grain and attached to the next. At this juncture, Jaeger says, it's too early to rule either idea in or out.

Whichever theory stands up to further investigations, a fuller understanding of tiny electric charges is important. Static charges cause small particles to form clusters, and the size of those clusters has powerful ramifications on other fields. In meteorology, clusters of volcanic ash particles can affect the formation of clouds; in astrophysics, clusters of charged dust particles are thought to be the first stage of planetary formation.

Jaeger also points out the potential impact in business: static charges have been blamed for grain silo explosions, and clusters of charged grains reduce the efficiency of the fluidized bed reactors used widely in the chemical industry.

-Benjamin Recchie, AB'03

GRAPHIC COURTESY DUBÉ, GENTZKOW, SHAPIRO, AND BRONNENBERG; ADAPTED BY JOY OLIVIA MILLER

Brewhub

A Chicago Booth alum taps into Beijing's microbrewery scene.

Kristian Li, MBA'II, first visited Beijing on a backpacking trip in 1998, when mass-produced beer ruled the market. It still does, but a small microbrewery scene now exists too, and Li is part of it. He is a cofounder of Jing-A Brewing Company, which has established its craft beers as popular choices in Beijing.

Jing-A started as a pet project that Li and his friend and cofounder, Alex Acker, transformed into a business. The company now operates with

four full-time and three part-time employees who help brew and market the beer. They produce 5,000 liters a month—on tap at the brewery and a flagship taproom—and distribute kegs to a handful of restaurants and bars across the city. Jing-A makes three or four core brews, plus limited releases with flavors aimed at a Chinese palate: roasted sweet potatoes, Osmanthus flowers, Xinjiang raspberries, and Sichuan peppercorns.

Before starting the company, Li, a Canadian born and raised in Toronto whose parents were from Shanghai and Hong Kong, worked at Cisco Systems in Beijing as executive director of corporate development in greater China. He had just finished his MBA at Chicago Booth, and six months into his new job, he started home brewing with Acker. "It really consumed us," Li

says. "We would basically do a batch of 50 bottles of beer, and we would have a party." Friends would compliment their beer, and then the two would do it all again with another flavor.

Business school planted an entrepreneurial seed in Li, and after three or four rounds of home brewing, he and Acker started thinking seriously about turning their hobby into a fulltime pursuit. "We spent more and more time learning about ingredients, brewing processes, and how to work with different flavors. It was a real progression from home brewers to where we are now. It was pretty fast two and a half years."

Jing-A is one of less than a dozen craft breweries in Beijing, a city of 21 million residents. Such a small scene stands in stark contrast to the American market, which has hundreds of

FIG. 1

DRUG RATES

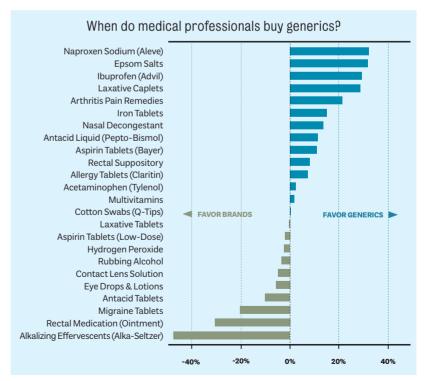
Generic drugs cost a fraction of national brands, but one in four consumers prefer brand names anyway. Chicago Booth researchers Jean-Pierre Dubé, Matthew Gentzkow, and Jesse Shapiro, working with Dutch economist Bart Bronnenberg, set out to investigate why. At CVS, 100 tablets of Bayer aspirin cost \$6.29: the same amount of the CVS store brand cost \$1.99. The products have the same dosage. the same amount of the active ingredient, and the same directions. What makes people choose the more expensive national brand when the generics are identical?

Analyzing 77 million shopping trips from 2004 to 2011, the researchers found that people's choices were influenced by their level of knowledge and field of expertise. Health care professionals more often preferred the cheaper generics. Pharmacists, for instance, bought the store brand 91 percent of the time, compared with 74 percent for the overall population. When it comes to buying pantry staples, medical professionals were no more likely than other consumers to

choose generic brands: "Healthcare expertise does not translate to behavior outside the health domain." the researchers note.

Their findings were published in a July National Bureau of Economic Research working paper.

-Kathryn Vandervalk, '16





Kristian Li (left) and Jing-A partner Alex Acker started out brewing at home.

microbreweries. Illinois alone, with a population of almost 13 million, has 83.

Such a small industry has brought Jing-A close to its competitors. The breweries work together, often helping each other with ingredient shortages. While Jing-A's customers are primarily expats, Li says, he hopes to expand its audience to Chinese beer enthusiasts.

"The best part of the job is interacting with local customers that are trying craft beer for the first time," Li says. "I love watching their expression when they drink our IPA or another one of our popular beers. You see this realization on their faces that beer can actually have complex, intricate flavors."

Located near Beijing's embassies, in a district known for bars, clubs, and shopping, Jing-A shares its space with Big Smoke Bistro, a restaurant popular with the city's expats. Young professionals fill the dimly lit tables, unwinding with dinner and glasses of Jing-A.

Amid the bustle on a recent evening, Li sits at a counter with Sha Wang, who markets Jing-A to a Chinese audience. As we talk, a brewer, bag of hops in hand, comes up to consult Li about the next day's brewing plans. Glasses are filled and emptied. Even Li is taken with his own tricks: "This Airpocalypse is delicious!" he says after taking a sip of his double IPA, whose name references Beijing's smog.

Li hopes one day to reach beer drinkers overseas and in the United States. In the nearer future, the brewerv is opening another taproom in Beijing this year. They are also looking to open retail stores and increasing their distribution around the city. "In terms of vision, it's pretty simple for us," Li says. "We are just focused on making the best possible beer and having fun while doing it."—Kristin Lin, '16

ORIGINAL SOURCE TORCH SONGS



In the early 20th century, music in Mexico traveled through folk ballads known as corridos. Singers and guitarists played them at social gatherings and on street corners to transmit news and gossip. Corrido lyrics—printed on colorful, tissue-thin paper and sold for pennies in the market—also told stories of love and war.

UChicago anthropologist Robert Redfield, LAB 1915, PhB'20, JD'21, PhD'28, collected dozens of broadsheets with corrido lyrics on research trips to Mexico from 1926 to 1930. He saw the ballads as folk literature—"a valuable index," he wrote, "to popular thought."

Researching Mexico, focusing on UChicago scholars who did fieldwork in Mexico—Redfield; historian Friedrich Katz; anthropologist Sol Tax, PhD'35; and others—runs through October 4 in the University **Library's Special Collections**

Research Center. The exhibition, presented in conjunction with the Katz Center for Mexican Studies, includes correspondence, photographs, recordings, and objects from Special Collections holdings.

This 24-verse broadsheet recounts the 1919 assassination of revolutionary leader Emiliano Zapata and laments the perfidy of his enemies and his own failure to improve the lot of ordinary Mexicans.

When Redfield was a PhD student, he did research in Tepoztlán, a town in the southcentral state of Morelos. The conflicts that had sparked the revolution still smoldered and, for Redfield, corridos contained the embers. "These songs are the real history-books of Tepoztlán," he wrote, "the cherry tree of their George Washington, and their Paul Revere's ride."—Elizabeth Station

Immigrant children

Maria Woltien, a children's rights expert in the Law School, says US policy should prioritize safety.

Since October 2013, more than 52,000 children, most from Central America and unaccompanied by adults, have crossed the Southwest border into the United States, according to US Customs and Border Protection. That's nearly double last year's total and ten times the number from 2000. Administration officials have called it "an urgent humanitarian situation."

Maria Woltjen heads the University of Chicago Law School's Young Center for Immigrant Children's Rights Clinic, a national initiative that provides child advocates for unaccompanied immigrant children detained by the federal government. Recently the US Department of Health and Human Services asked the clinic to launch three new child advocate programs to serve unaccompanied children in New York, Houston, and DC/ Virginia/Maryland.

In an interview, edited and adapted below, Woltjen discussed the crisis.

-Wen Huang

What has caused the recent surge of unaccompanied children?

The reasons for this mass migration are tangled. For many, the treacherous journey to the US-Mexico border is an act of desperation. A March 2014 United Nations report found that the majority of Central American children coming to the States on their own are fleeing dangerous and violent situations in their home countries. The United Nations reports that Honduras is the murder capital of the world, with Guatemala and El Salvador close behind.

Of course, there are other factors severe poverty, lack of education opportunities, no health care, and not enough to eat. For some, it's the desire to be reunited with parents who live in this country. According to a recent

UN survey, over half of Central American children who had crossed the border alone had one or both parents in the United States.

How do they get to the border region?

They travel any way they can: by bus, by foot, clinging to the sides and tops of trains. A majority of the children are led by smugglers known as covotes, some of whom charge families up to \$10,000 to bring each child to a spot near the border. Then the child walks over to the border, where they give themselves up to the custody of US Customs and

Border Protection. These journeys are often grueling, making children vulnerable to abuse and trafficking along the way.

What happens after they give themselves up to custody?

The children reaching the US border will be charged with breaking the law and placed in deportation proceedings. They're required to go before an immigration judge and face a government attorney in a formal courtroom. Unfortunately, many, if not most, won't have an attorney to speak on their behalf, or a child advocate at their side. Unlike in our state courts. where children's cases are handled separately and where there is a standard called "best interests" of the child to govern the proceedings, these children are treated like adults.

Is it true that most of the children are allowed to stav indefinitely?

It's not true. The children are not automatically granted legal status of any kind. Under the Trafficking Victims Protection Reauthorization Act of 2008 (TVPRA), unaccompanied children from noncontiguous countries must be transferred to the custody of the Department of Health and Human Services within 72 hours of being apprehended. The Customs and Border Protection office transfers them to secure facilities around the country. The children do not have permission to remain in the United States. They are required to appear



in immigration court and prove their eligibility to remain.

What is the role of the Young **Center for Immigrant Children's Rights Clinic?**

The center is working with federal agencies and the White House to protect the children's rights guaranteed in the TVPRA. It provides that the child advocate's role is to advocate for the best interests of the child. However, there is no statutory bestinterests standard in immigration law, no requirement that judges consider what's best for the child before them even though the decisions can carry life-and-death consequences.

Based on standards adopted in our juvenile courts, a child's best interests means that a judge, when placing a child, will consider whether the child will be safe, whether the child will be separated from family, whether this is what the child wants. The center also looks to international law, specifically the Convention on the Rights of the Child, which requires the consideration of best interests in all decisions regarding children.

How should the US government handle the current crisis?

Wherever one stands on the immigration debate, we need to recognize that unaccompanied children are the most vulnerable. We need to make sure that wherever they land—here or back in their home country-they'll NEUROBIOLOGY

Free thinking

BY JASON KELLY

oward the end of week seven in Peggy Mason's online course, Understanding the Brain: The Neurobiology of Everyday Life, the University of Chicago professor introduced the concept of self-generated movement, "where neurobiology and philosophy meet." The subiects intersect because movements that fall into the self-generated category are open to interpretation.

Reflexes, which the spinal cord predominantly produces, tend not to be considered self-generated. The same goes for stereotypical movements, the standardized processes that all healthy humans automatically learn to perform, such as walking and chewing.

But there's a third type of movement, originating in the forebrain, the anatomical source of self-generation. Within that category there are two subtypes: volitional and emotional movements.

Volitional movements include the fine motor control required for writing, turning a page, or playing a musical instrument. They also encompass facial expressions, speech, and gestures. "There are descending pathways," Mason said, "that go from the forebrain to the brain stem and the spinal cord to produce either volitional movements of the appendages, the limbs, or of the face, the upper airway, the tongue."

But not all movements originating in the forebrain are deliberate. There are also those defined as emotional movements-instinctive reactions like smiling and frowning, even posture that reflects our feelings. "We embody our emotion," Mason said. Like volitional movements, emotional actions originate in the forebrain, but they follow different, still largely uncharted neural routes. A lesson in those mysterious pathways created a startling illustration of the nervous system's complexity.

Mason displayed a series of photos of a stroke patient. A doctor had asked the woman to smile and she could move only half her face, the right side remaining slack. But when she reacted to a joke, a smile spread across her entire face, the stroke damage undetectable in her expression. The same thing held true when she grew frustrated with the doctor's orders. No impairment prevented a symmetrical and unmistakable look of exasperation.

The pathways that her conscious movements travel had been damaged by the stroke, but the neural trajectory of her emotional actions remained



Mason calls herself a "neuroevangelist," which makes the online education site Coursera her megachurch.

healthy. "An individual who has an inability to produce volitional movements in response to a command," Mason said, "has complete ability to do the same movement for some other emotional reason,'

I don't remember my exact reaction to that information-Mason also explains how we edit memories in the retelling, so any recollection would probably be imprecise anyway—but I must have responded with emotional movements expressing surprise, a common response from me during the intriguing introduction to neurobiology.

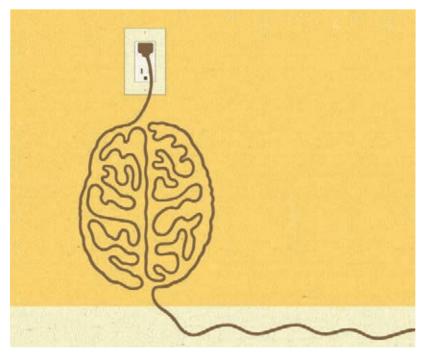
The free, noncredit online course grew out of the University's relationship with Coursera, a provider of massive open online courses (known as MOOCs). Coursera offered its first two UChicago courses in 2013—Global Warming with climate scientist David Archer and Asset Pricing with Chicago Booth finance professor John Cochrane. This year the University also joined an online education consortium called edX, a platform developed by the Massachusetts Institute of Technology and Harvard University.

Two faculty committees recommended allowing interested professors to experiment with online education. The UChicago-based courses, although still few in number, reflect different motivations among faculty. Archer, for example, has described his MOOC as an extension of his public outreach to educate people about climate change.

Mason, author of the textbook Medical Neurobiology (Oxford University Press, 2011), calls herself a "neuroevangelist," which makes Coursera her megachurch. Her infectious preaching made me a believer in online learning itself, which appealed to Mason as a form of "educational social justice."

Designed for the general public, Understanding the Brain required no prerequisites. Each week included a series of video lectures that could be absorbed whenever time permitted, convenient for the nearly 55,000 students enrolled, but challenging circumstances for a professor to attract and maintain their attention.

During the first few weeks of recording this past January, Mason did not feel invigorated like she usually does after teaching. She sensed that the lectures, essentially repackaged from her med



school course, would not connect with the target audience that producer Emily Joy Bembeneck had described: people who were eating dinner, doing the dishes, or otherwise distracted by life.

On a train ride home in late February, the conductor mentioned to Mason that he had registered for the course. "I couldn't sleep that night," she said, recalling the nagging thoughts that kept her up. "This is so not going to work for Jeff. It's so not right."

After meeting with Bembeneck, who works in the University's academic and scholarly technology services department, six weeks of recordings went into the trash. The rush to replace them before the course went live in April came with reassurance: the crew's once blank expressions showed increasing understanding and interest. "Then I was completely energized," Mason said. "A totally different feeling."

The student response energized her even more. Discussion forums were lively, quizzes and final projects impressive. And, Mason said, she would sometimes get more emails in a day than Bembeneck told her to expect for the duration of the course.

I took in only the video lectures, often bingeing to keep up-online education illustrated, all too well, the notion of self-generated movement. But the information was interesting and accessible enough to be digestible even in much larger quantities than the intended bite-sized portions.

There was, for example, the revelation about fever. I always believed the chills that accompany a high temperature were the body's cooling mechanism. Not so.

The hypothalamus, Mason explained, holds our body temperature "rock steady" at 37 degrees Celsius under all external conditions. Stepping out into the cold, for example, creates a sensory response that prompts changes that maintain our inner warmth. "Your skin temperature would change," she said, "but the hypothalamic temperature would not change."

That unwavering level is called the

set point. A fever happens when the hypothalamus changes the set point to fight an infection. And the chills come from the body's lag in increasing its temperature to the new set point, perhaps 40 degrees. "Before we got sick, when we were at 37 and the set point was at 37, we felt comfortable," Mason said, illustrating a new set point and the body temperature's delayed rise with a marker on a whiteboard. "Now we're at 37 or even 38, but the set point's at 40. What do we feel? We feel cold."

Nuggets like that studded the video lectures. Hovering over it all was the spirit of Jean-Dominique Bauby, author of The Diving Bell and the Butterfly (Knopf, 1997).

After suffering a massive stroke in his brain stem, Bauby was left paralyzed and tethered to a respirator, unable to breathe or swallow. His incapacitated condition, called locked-in syndrome, left him with only a single working evelid.

With assistants pointing to or reading from an alphabet, Bauby cobbled his book together by blinking each time they arrived at the letter he wanted. "With the one avenue that Bauby had to express himself," Mason said, "he did."

His achievement served as an introduction to "the power and the profundity of what our nervous system does," after which Mason spent ten weeks detailing the physical and emotional ways the brain moves us. •

SYLLABUS

Over ten weeks Peggy Mason's free, noncredit online course Understanding the Brain: The Neurobiology of Everyday Life covered three main topics: neuroanatomy, neural communication. and neural systems. With

video lectures and labs. discussion forums, and quizzes, the material was structured in weekly units such as voluntary movements, homeostasis, and executive function. The estimated time commitment was four to six hours per week. Weekly quizzes made up 75 percent of a student's grade while the final project—to illustrate a personal example of everyday neurobiology in an essay, slide presentation, or video—accounted for 25 percent.—J.K.

biology

NATURAL CONNECTION

Joining forces with the Marine Biological Laboratory, the University formalizes its long-standing links to a venerable scientific destination.

BY JASON KELLY PHOTOGRAPHY BY DANIEL COJANU





t the Marine Biological Laboratory, neurobiologist Jennifer Morgan studies how sea lampreys recover from spinal cord injury, a regenerative marvel and mystery. Within three weeks of injury, the sea lampreys typically regain the ability to move, at first in irregular fits and starts. As the weeks pass, their improvement continues until, about three months after a spinal transection, it's hard to distinguish a previously injured animal from an uninjured one.

Plotted on a graph, it's impressive progress. Witnessed in the tanks shelved in Morgan's lab, where she rakes the sand with a plastic tool to stir the burrowing fish, it's astonishing. They lurch out of the sand and propel themselves through the water, undulating like Michael Phelps after pushing off the wall of a pool.

Morgan points out a slight kink near one sea lamprey's head, the faintest hitch in its otherwise fluid motion, and the only visible evidence of recent trauma. To the naked eye, an uninjured animal in the same tank has no apparent physical advantage. "You actually have to video them," Morgan says, "and measure quantitatively things like swimming speed," which the injured fish never fully regain.

Sea lampreys are vertebrates with genetic similarities to humans, so the level and consistency of their recovery is especially tantalizing. Analyzing brain and spinal cord tissue at different stages of the healing process, researchers can identify what genes are expressed to understand the neurobiological mechanisms driving regeneration.

"Because the recovery is so stereotypical, now we can start to do manipulations that might improve it, make it go faster," Morgan says. "Or we can perturb pathways that might inhibit regeneration and make it go slower, so that we know that pathway is important."

Data indicates relevant activity in genes related to neuron growth and to the immune system. "The goal is to say, OK, what's the recipe that gets you good regeneration?" Morgan says. "What's happening in an animal that doesn't recover very well, like a mouse? And make that comparison."

Morgan explores those questions at the Eugene Bell Center for Regenerative Biology and Tissue Engineering, where she is associate director. Part of the Marine Biological Laboratory (MBL), the Bell Center recently added to the web of connections developing between the Woods Hole, Massachusetts, institution and the University of Chicago since they formed an affiliation in 2013.

In July a \$3.5 million gift from the Millicent and Eugene Bell Foundation endowed the Eugene Bell Professorship



The MBL's collecting vessel, the Gemma, gathers marine specimens for the lab's research.

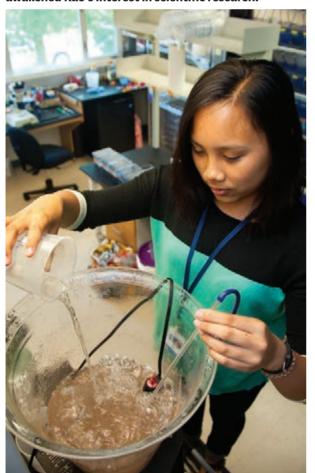
THE STUDENTS WERE, IN A SENSE, EXPERIMENTAL SUBJECTS THEMSELVES, **OFFERING THE FIRST INKLINGS OF THE WAYS UCHICAGO UNDERGRADUATES COULD BE ASSIMILATED INTO THE MBL'S ARRAY** OF PROGRAMS.

in Tissue Engineering. The position will be based at the University's Institute for Molecular Engineering with the faculty member directing a research project at the Bell Center as well.

Also this past summer, seven College students and recent graduates worked at the MBL as part of Career Advancement's Metcalf Internship Program for UChicago undergraduates. They budgeted to hire five Metcalfs, but Ioel Smith, the MBL's associate director of education, says several of the students' research proposals were of such high quality that they were "impossible to distinguish between." Additional funding allowed eight to be hired, although one could not participate.

The students were, in a sense, experimental subjects themselves, offering the first inklings of the ways UChicago undergraduates could be assimilated into the MBL's array of programs. Mostly, though, they were partici-

Studying zebrafish in a state of suspended animation awakened Kao's interest in scientific research.



pants. Smith describes the lab's philosophy as "teaching science by doing science," and that's just how the Metcalf students learned.

On her first day, Clara Kao, '17, used tweezers under a microscope to remove zebrafish embryos from their eggs. She had never worked at such a tiny scale before. "I was dizzy for a while," Kao says, but that eventually faded into a different kind of heady feeling. "Afterwards, I was like, 'Wow, I actually did something today."

Kao works with Jonathan Gitlin, the Bell Center director and the MBL's deputy director of research and programs, to study what happens when zebrafish are put into a state of suspended animation, or hibernation. A pediatrician, Gitlin became interested in the subject as a resident when he treated a six-year-old girl whose mother jumped off a bridge with her in a snowstorm, plunging them into an icy river. Pulled out 48 minutes later, the mother died, but the child lived. "Her heart rate," Gitlin says, "was ten when I arrived."

She needed several surgeries, but the role that a drastic cellular slowdown could play in survival stayed with Gitlin. Heart attack survivors, for example, experience a phenomenon called stunned myocardium. "The heart cells at the time of that event just stop," he says. "And they wait."

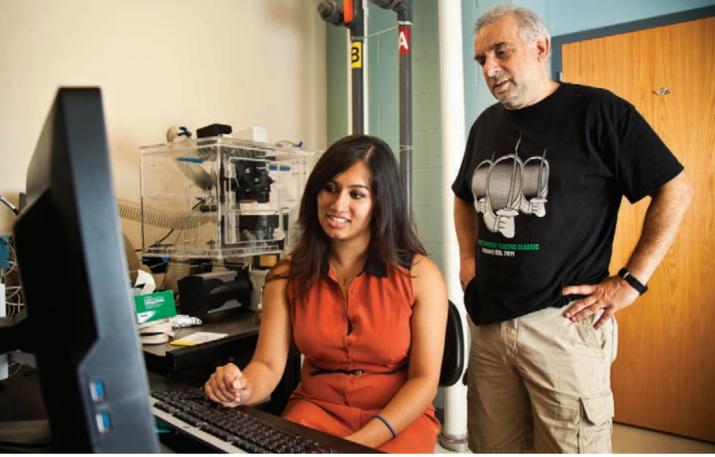
His scientist's intuition and his physician's imagination merged in a basic research question with hopeful medical implications. "How does a cell turn way up or way down its metabolism, its metabolic rate?" Gitlin says. "A great way to think about this is, the old physiologists used to call this turning down to the pilot light."

Could children suffering from brain cancer have cells put into suspended animation—"stunned brain"—to prevent damage from aggressive treatment of the tumor? Could such a process better preserve organs for patients who are waiting for a transplant?

Turning the pilot light up and down in zebrafish allows for genetic testing to understand the cellular processes that keep the animals alive in and out of the induced torpor. "You take away all the oxygen. You put them in an environment called anoxia. Everything stops," Gitlin says, pausing for a few beats, as if to mimic the state. "Then if you come back with the oxygen 30 hours later and add it in, everything starts right back up again. The heart starts beating again. The blood starts flowing."

Scientists appear to experience a similar phenomenon during the bustling summer months at the Marine Biological Laboratory. Many visit from academic institutions around the world. They talk about shedding administrative burdens and returning to the source of their inspiration.

Hearts start beating, blood starts flowing, and a dormant passion for research reawakens.



Biswas, left, who studies with Green at UChicago, continues her work with him during an internship at the MBL.

oods Hole, Massachusetts, sits on the shoulder blade of Cape Cod's flexed arm. A historic whaling, fishing, and shipping port, Woods Hole is also a venerable scientific destination, its rocky coastline dotted with research institutions, including the Marine Biological Laboratory, which dates to 1888. Each summer the migratory biologists arrive.

They don't come on vacation, but there's an unmistakable air of relaxation even amid the blur of activity during summer's brief window. Wearing shorts, T-shirts, and sandals, they drift between lectures—popular daily offerings, sometimes filling the auditorium to overflowing—and labs, lost in thought or conversation.

"One of my favorite things about being here," says Metcalf Intern Medha Biswas, '16, "is that there's so much intellectual stuff going on," even beyond her own summer project with UChicago neuroscientist William Green. The curious stuff through the open doors of other labs, for example, into which everyone feels free to wander to peek at other people's work. "Just come over and we'll show it to you," Biswas says, describing the prevailing sentiment.

Days start early and end late, often at the Captain Kidd restaurant and bar, which serves as a de facto conference room for impromptu meetings that last long after office hours. In that accelerated—even a little bit overextended environment, a virtuous cycle of research gathers momentum in Woods Hole.

"They just go on a data binge over three months, and then they spend a year or so analyzing, and then they discover things," says Shalin Mehta, a microscopist in the cellular dynamics program. "And then they come back with new questions, which comes from the data they have taken previously."

Like the questions researchers ask, and like the marine and terrestrial creatures they study to answer them, the programs at the MBL are diverse. The summer courses are perhaps the institution's most distinctive offering. In 1892 Jacques Loeb, one of several early UChicago faculty members whose names adorn MBL buildings, founded the flagship physiology course.

This summer there were seven graduate-level full submersion courses in subjects such as embryology, microbial diversity, and neurobiology. Each course has 20 to 24 students, who come from all over the world, paying \$5,625 in tuition this summer—costs that their home institutions, scholarships, grants, and need-based aid help reduce.

Over six to eight weeks, they embark into territory that, for some, is entirely unfamiliar. About half of the students in this summer's physiology course, for example, had physics and math backgrounds.

To study motor proteins isolated from squid—as well as the microbes in plaque scraped from their own teeth—students first assembled microscopes during a "boot camp" that began the course. Then they "caught" their own squid from a tank in the MBL's Marine Resources Center, which collects and maintains more than 200 organisms for scientific use.

"What a great introduction to biology," says physiology course codirector Wallace F. Marshall, a biochemist at the University of California, San Francisco, "to actually have a whole squid that you fish out of the water with a net." It might take a while to wash off the ink that the animal sprays in self-defense, but the students can wear it as a mark of field experience that, Marshall notes, even many trained biologists never have.

Fishing for squid or building microscopes together creates a camaraderie that makes the daunting workload more manageable. Not that the hundreds of scientists and students who flock to Woods Hole for the summer want to spend fewer hours in the lab.

Labs close on Sundays for enforced rest, but relaxation is also a prominent part of the institution's DNA. Students make time to outdo each other with costumes and floats of varying biological correctness for the Woods Hole Fourth of July parade. "My kids call it the nerdiest parade in the world," UChicago's Green says.

Professional and personal interests merge in the labs too. In the neural systems and behavior course, a hum that sounds like an industrial fan comes from the drone of fruit flies the students are studying. Later, when a huge screen at the front of the room broadcasts the World Cup, Germany's win over Brazil generates the biggest buzz.

Creative science germinates in that casual atmosphere. Intellectual inhibition disappears. "Both in the courses and in the research there's a lot more freedom to try new things, to think of ideas, to talk to people, to meet new people," says Ron Vale, a professor of cellular and molecular pharmacology at the University of California, San Francisco, and a Howard Hughes Medical Institute investigator.

Vale and Columbia University's Michael Sheetz were two of three recipients of the 2012 Lasker Basic Medical Research Award for their work on kinesin, a motor protein that they and colleagues discovered in squid as MBL collaborators in the 1980s. A graduate student at the time, Vale



All absorbed in neural systems and behavior.

says the breakthrough "probably wouldn't have happened anywhere else."

Also a former physiology course director, Vale praises the MBL's structural advantages. Around him in the lab, principal investigators from seven different institutions, along with graduate students and postdocs, work in floating clusters over microscopes and computer screens, as if dramatizing his description of an environment that creates "collisions between people."

Summer's precious few months bring a rush of scientific interactions, making the MBL a hothouse of ideas. "The system heats up here to a boil," Vale says, "and the pot is stirred in ways that often don't happen at your home institution."

THERE'S A LOT MORE FREEDOM TO TRY **NEW THINGS, TO THINK** OF IDEAS, TO MEET **NEW PEOPLE.**

or about 125 researchers, like Gitlin and Morgan in the Bell Center, the Marine Biological Laboratory is home. Another resident scientist, Julie Huber, who is associate director of the Josephine Bay Paul Center, studies microbes in the deep ocean. Below a depth of a few hundred meters, human understanding about the ecosystem and the life it supports fades into darkness. "It's this big habitable volume that we know very little about," says Huber, who has spent her career on a deep dive into the subject.

On one oceanic voyage about eight hours from Samoa in the western Pacific, she was among the first people ever to

TOP LEFT: The National Xenopus Resource stocks two species of frogs for researchers at the MBL and elsewhere. TOP RIGHT: Hanlon's images of cephalopods shed light on camouflage. BELOW: Tanks, filtration systems, and seawater pipelines in the Marine Resources Center are used to maintain aquatic organisms for year-round study.

witness an undersea volcano erupt. With a robotic camera sending images to a live video feed on board, Huber and a group of geologists, geophysicists, and chemists thrilled to a sight nobody had seen in four billion years of such eruptions on the ocean floor. "The cooks are coming out of the kitchen, the captain's calling down from the bridge," Huber says. "People are running outside to see if you could see any bubbles on the surface."

The eruption occurred a mile deep, so there were none, but that didn't flatten the champagne fizz everyone on the ship felt. One geophysicist told Huber that he had seen his holy grail and could now retire.

For Huber, there was even more of interest on the screen than the spewing volcano itself. "The magma's 1,200 degrees Celsius or higher, and you look a few meters away and there's these little shrimp feeding on microbial mat. So life, very often, can find a way," she says. "The fluids at the erupting volcano, the pH is like battery acid, and yet there's life."

Over the past decade Huber and colleagues who worked on the International Census of Marine Microbes were amazed to discover the sheer scope of undersea life. In the mid-2000s, a developing technology called next-generation sequencing—a new way of generating huge amounts of genomic data—offered a vastly more effective method of determining what microbes are present in seawater samples, including some of Huber's from the deep ocean. "I knew there was a lot more than I could see with the other methods," she says. "So we tried it and when we first got our data back, it just blew us all away. We were like, wait, that can't be right."

WE HAVE LAID THE PRINCIPLE OF **COOPERATION AT [THE** MBL'S] FOUNDATION, **AND WE HAVE** ATTEMPTED TO BUILD IT INTO EVERY ONE OF OUR ACTIVITIES.

They spent months combing through a quantity of data they were not accustomed to handling. Poring over the results, they identified and ruled out one potential error after another until they were confident enough to publish. "This roller coaster went up and down," says Mitchell Sogin, a Distinguished Scientist in the Bay Paul Center who codirected the census. Led by Sogin, their paper identified an enormous population of marine microbial types that they called the Rare Biosphere.

The population of interested scientists only went up as the research progressed. "People who were funded to do other projects were spending time because it was intellectually interesting," Sogin says. "And that's characteristic of what goes on."

Drawing on what Smith, the associate director of education, calls a "critical density" of scientific talent and technology, the MBL's pooling of resources is part of its historic philosophy. "We have laid the principle of cooperation at [the MBL's] foundation," as the lab's second director, Frank R. Lillie, PhD 1894, put it, "and we have attempted to build it into every one of our activities."

Adding to that foundation, last year the University of Chicago and the Marine Biological Laboratory created the Frank R. Lillie Research Innovation Awards as one of the affiliation's first initiatives. Lillie was a student under Charles O. Whitman, the Marine Biological Laboratory's founding director in 1888 and the University's first zoology chair. Lillie went on to become zoology chair himself and then biological sciences dean, in addition to serving as MBL director from 1908 to 1925. In all he spent 55 consecutive summers in Woods Hole.

Despite connections dating back to the founding of both institutions, UChicago and the MBL had no official relationship until 2013. The benefits of establishing a partnership were mutual.

Struggling like many research institutions in a difficult economic climate, the MBL needed support that the University could provide, including expanded access to grant money, fundraising experience, and reduced operational costs. It remains a separate entity, registered in Massachusetts as a 501(c)3 nonprofit and led by president and director Joan Ruderman, who helped shape the partnership and will step down at the end of her term this fall. The laboratory has a \$76 million endowment, a \$47.4 million operating budget, and about 250 employees.

Under the affiliation, the director reports to University president Robert J. Zimmer, who also serves as chair of the MBL board of trustees. UChicago professor Neil Shubin is the senior adviser to the president and to the vice president for research and national laboratories for the affiliation.

Similar to the management of Argonne and Fermilab, the MBL relationship broadens the scope of the University's









Two interns, one "transcendental step in education."



Alex, in Conte's lab, delves deep into the unknown.

research and educational potential, particularly in biological and environmental sciences. As Shubin noted last year, the affiliation offers UChicago scientists "the means to develop academic programs otherwise not possible."

t's hard to tell what **Rachel Folz**, SB'14, likes most about her Metcalf Internship: charting elevations in the field on an experimental salt marsh, or plotting the results with geographic information systems mapping software.

"We have a very high-tech instrument that we use to measure the elevation," Folz says. She's kidding. "It's like a bucket on a crate."

Her mentor, Ivan Valiela, a Distinguished Scientist at the MBL Ecosystems Center, comes to the equipment's defense. Folz tried a more advanced technique, he says, but it produced an unacceptable level of uncertainty. She wisely adjusted and learned a scientific lesson in the process. "That you just have to be very skeptical to test things," he says, "and then you use the technique—although it might sound very inexpensive and low tech-that works."

"And it works so well," Folz adds.

Folz and her fellow Metcalf Intern in Valiela's lab, Caroline Owens, '15, banter back and forth with Valiela. He jokes with Folz, who pointed out the poison ivy she also has to show for her work on the marsh, that identifying the plant and avoiding it are two different things.

He's also protective of their work and its importance. Owens opens a large spreadsheet—"it's like a blanket," Folz says—showing land-use data around Waquoit Bay originally compiled in the 1990s. "We need to know how changing land cover in the watershed has affected the concentration of nitrogen in the bay," Owens says, a task that will eventually require boat trips to collect samples.

For now, with current land-use information from the local tax assessor, she brings Valiela's original spreadsheet up to date. Using that data and information about changing precipitation since 1990, she can then run simulations estimating the effects of both factors on nitrogen entering the bay.

"That's pretty exciting," Valiela says. "So we're going not only from the millimeter scale that she's working on in the salt marsh to the global scale of changing precipitation regimes in North America."

Just using the GIS software for the first time, transforming raw data into visual order, excites the students. "It's really fun," Owens says.

"It's cool, yeah," Folz echoes, before displaying the grid where she plotted the elevations, bringing into digital relief the contours she could only sense on foot.

Whether referring to technology or to the natural processes it helps reveal, "cool" is a word heard often around the MBL, and maybe nowhere more than Roger Hanlon's lab. Hanlon studies cephalopods—cuttlefish, squid, octopus—and their stunning capacity to camouflage themselves.

In a video he took on a Caribbean dive, an octopus appears like a ghost from a bushy green rock where it had been invisible. Reversing the video in slow motion, Hanlon points out a dark circle appearing around one eye. "This is like electric skin," he says, referring to the chromatophore organs that trigger a complete visual transformation in a quarter of a second.

It's not just color that changes. To conceal itself against the ragged background, the octopus also alters the contours of its skin. Even knowing its location from multiple viewings and video speeds, it's impossible to distinguish from the rock. "So now the animal has changed its appearance optically," Hanlon says, "but also its physical three-dimensional texture."

Metcalf Interns Andrea Rummel, SB'14, and Lyda Harris, AB'14, help him collect and chart the images that illustrate those mechanisms. Rummel, for example, works with a new camera Hanlon developed with the National Science Foundation, which captures colors beyond the spectrum of human vision in order to see what the animals, including cephalopod predators, see.

Trade-offs for the technological benefit of putting so much color into every pixel include bulk, a manual-focus lens with no zoom, and a limited depth of field from only one F-stop. "It's photography in the 1850s, no kidding," Hanlon says, but it allows for advanced science. "Andrea will be really, in this case, on the cutting edge of being able to use an instrument that no one's ever had before."

Hanlon's project highlights another MBL resource: technology developed in sync with research objectives. Amy Gladfelter, an associate professor of biological sciences at Dartmouth College and an MBL summer investigator, offers an example of how that happens.

Last year Hari Shroff, an optical imaging specialist from the National Institutes of Health, worked with MBL students and scientists to create a device suited to the complex particulars of cell biology. "He came and built a very specialized microscope and had many people come in and throw whatever critter it is on it and, in response to the biologists, fine-tuned this instrument," Gladfelter says.

Prototypes like Shroff's, along with models already on the market that are not within the budgets of many institutions, are available at the MBL. That equipment helps attract top researchers who, in turn, help make the technology more efficient and effective. "You just don't get that," Gladfelter says, "hardly anywhere else in the world."

Maximizing the potential of advanced microscopy also

THE LEARN-BY-DOING **CULTURE WILL BE CENTRAL TO ANY MBL-BASED EDUCATION FOR UCHICAGO STUDENTS.**

requires computational capacity, a particular strength she believes UChicago brings to the affiliation. Gladfelter envisions blending those complementary assets into what she and colleagues are calling a "collaboratorium" to accelerate science and technology together-a year-round research destination that "takes advantage of this historical strength in biology and microscopy of the MBL and then the computational power of Chicago."

Hanlon mentions another benefit UChicago offers the MBL: "access to students." Exactly how undergraduates, in particular, can contribute to and benefit from the relationship remains an open question. A committee led by Shubin has been exploring the possibilities. Retreats in Chicago and Woods Hole over the past year allowed the new colleagues to begin comparing notes.

Hiring Metcalf interns, who helped fill the MBL to overflowing this summer, was one step. During the academic year there's room to spare. That unoccupied space and time offers several options, Ruderman says, including "the possibility of giving something that we call a quarter abroad in Woods Hole."

It could be modeled after, or even incorporated into, the laboratory's existing Semester in Environmental Science program that attracts undergraduates from multiple colleges and universities. Curricular and logistical wrinkles still need to be ironed out, but the learn-by-doing culture will be central to any MBL-based education for UChicago students.

Students there don't solve textbook problems with predetermined answers. Instead, as Ruderman puts it, they see "what's muddy and how the questions change," gathering original data and following evidence to their own conclusions.

Organic geochemist Maureen Conte, a deep ocean researcher and mentor to Metcalf Intern Shaunae Alex, SB'14, recalls a research assistant coming to understand why Conte responded "I don't know" to so many of his questions. "He said, 'It's really frustrating, and then one day I realized, that's what research is about, you don't know what you're doing." Conte says. "That's perfect. I think that's a totally different skill from what you learn in the classroom."

Valiela agrees. To him, it's not data-gathering equipment or analytical software that opens minds and widens eyes; it's the previously unknown truth revealed in every fragment of information students unearth. "Nobody in the history of humankind has seen those results before. You found something about reality that nobody has ever seen," he says. "It seems to me that's a transcendental step in education." ◆



To read about the Marine Biological Laboratory's National Xenopus Resource and the frog research conducted there, visit mag.uchicago.edu/frogs.

legacy

MAUD SLYE

(1869 - 1954)

Storm driven.

BY KATHERINE MUHLENKAMP

n an April 1937 Newsweek cover, Maud Slye watched over her mice. Slye, EX 1899, hovered as two white rodents peered over the open door of a metal cage, ready to leap out. Inside the issue, a twopage spread chronicled the UChicago pathologist's 30-year effort to study cancer susceptibility in 140,000 mice. In the accompanying photos Slye,

with strong features, cropped hair, and ever-present lab coat, works in the threestory Hyde Park greystone where she maintained endless rows of caged mice, performed breeding experiments and autopsies, and kept copious records. The research led to her highly controversial conviction that cancer was hereditary and could be bred out of the human population. "Had such a notion originated in the mind of a lesser person," wrote Newsweek, "the story would have died after one day."

Born in Minneapolis in 1869, Slye was raised in Des Moines and Marshalltown, Iowa, by educated parents of modest financial means; her mother hoped she'd become an artist or an author, but Slye wanted to study science. She chose to do so at the College, where she arrived in the fall of 1895 with \$40 to her name.

Slye carried a full course load while supporting herself by working as a secretary to President William Rainey Harper. According to several sources, the relentless pace led to a nervous breakdown, and in 1897 she moved to Woods Hole, Massachusetts, to live with relatives. Later Slye transferred to Brown, which granted her a bachelor's degree in 1899. After teaching psychology at Rhode Island State Normal School, Slye returned to the University of Chicago in 1907 as a graduate student and assistant to zoologist Charles O. Whitman.

In Rhode Island, Slye had become interested in genetics. Now she spent \$6 on a half dozen Japanese waltzing mice, so named because, unable to move in a straight line due to a nervous disorder, they whirl in small circles instead. Breeding the mice, she launched a study on the inheritance of such disorders.

Never earning a graduate degree, Slye gained prominence as a pathologist once she focused on cancer. Her interest in the disease's inheritability was sparked by a young researcher named Leo Loeb, who had noted the prevalence of eye cancer in a group of cattle at the Union Stock Yards, all from the same ranch in Wyoming. A link between cancer and genes had been proposed but not yet established; some researchers still subscribed to the "germ theory," which viewed the disease as a contagious infection caused by microbes. Observing that cancerous tumors were common in mice. Slye began breeding her animals to see whether the tumors were related to heredity.

She initially struggled to fund her long-term study. But in 1911, when the Sprague Memorial Institute for "the investigation of the cause of disease" was established in Chicago, the research director, H. Gideon Wells, PhD 1903, took an interest in Slye's work and gave her generous funding. Becoming director of UChicago's cancer laboratory in 1919, Slye was promoted to associate professor in 1926. She presented her findings widely, winning a gold medal from the American Medical Association in 1914, among other prizes.

Cancer, according to Slye's interpretation of her data, was a Mendelian recessive trait, like albinism or cystic fibrosis. The inheritance process would work much as it does for CF: every person inherits two cystic fibrosis transmembrane conductance regulator genes, one from each parent. Children who inherit two faulty CFTR genes develop CF; those who inherit one faulty gene are carriers who never develop the disease but can pass the gene on to their offspring. Differing from the CF or other Mendelian models, however, was Slye's argument that genes were only half the story in cancer and that irritation needed to occur at a given site for the disease to emerge.

One of the first to embark on a long-term study of the link between cancer and genetics, Slye produced evidence damning to the germ theory. Placing cancerous mice with those she deemed genetically immune, Slye confirmed that the latter remained cancer-free in spite of exposure to the former. And she pointed out in a 1926 paper that the tumors did not produce symptoms consistent with viral or bacterial infec-



tions, such as hindered reproduction. Cancer in her mice never interfered with reproduction unless it was in the reproductive organs; in fact, reproduction slowed tumor growth.

By incorporating irritation into her theory of Mendelian inheritance, Slye helped pave the way for modern-day cancer studies that stress interactions between genes and outside aggravators. Although it's now widely thought that only a small percentage of cancers are directly inherited, much research is dedicated to how environmental factors can alter genes and ultimately cause cancer—an idea that Slye explored tangentially.

As her work gained recognition, the media took notice. Newspapers and magazines heralded her scholarship and marveled at Slye's dedication, noting that she worked tirelessly, moving back and forth between the laboratory at 5825 Drexel Avenue and her home across the street. When she traveled to California to visit her ailing mother, she rented a boxcar and took her mice along, wrote Newsweek. The Chicago Tribune reported that her first extended research break was in 1936, when she went to Europe as a delegate to the International Congress for the Control of Cancer.

Slye never married, although she was rumored to have had a love affair with a male artist. Her recreation was writing poetry. A 1944 Tribune article described how Slye spent much of her time away from the lab writing verse. She published about 700 of her poems in two Stratford volumes, 1934's Songs and Solaces and 1936's I in the Wind. Frequently alluding to nature, the poems spoke to her consuming scientific commitment: "I pace the world because

I am storm-driven / By this compelling of creation."

Slye's pacing was not always welcome. Often associated with eugenics, she was outspoken that a bureau of human statistics should be created to breed cancer out of the human population. "At present we take no account at all of the laws of heredity in the making of human young," she said in a 1938 Chicago-area talk. "Do not worry about romance. Romance will take care of itself. But knowledge can be applied even to romance."

Not so fast, thought some of Slye's fellow pathologists. Almost all of them were male, and some were cutting in their critiques. Columbia University's Francis Wood questioned whether Slye's hereditary findings in mice could be applied to humans and further noted that he was unable to replicate her results in white rats. In the fall of 1926, Slye discovered that during a meeting of the Columbus Academy of Medicine, surgeon André Crotti had publicly relayed a story

apparently told to him by Wood: When Wood's "representative" visited Slye's lab and asked to see her records, she burst into tears and refused to share them.

Outraged, Slye began a blistering correspondence with the two men, insisting that the story had "not the slightest foundation in fact behind it." Crotti was apologetic; Wood was dismissive, writing to Crotti, "Don't feel embarrassed in the least concerning your remarks regarding Miss Slye. She is always indignant with me, but it seems to me that indignation has very little to do with scientific facts."

Also facing criticism from genetics researcher Clarence C. Little that her own data suggested a more complex relationship between genetics and cancer than a single-gene Mendelian recessive trait, Slye eventually modified her theory to incorporate three genes: one that determined cancer's location; a second, its type; and a third, its degree of malignancy. Time would prove that both Slye and Little had failed to perceive the actual complexity of genes' role in cancer, still not fully unraveled.

After taking mandatory retirement from the University in 1944, Slye spent her remaining years compiling data before suffering a fatal heart attack on September 17, 1954. Since her death, she's been credited with playing a pivotal role in disproving the contagion hypothesis and with helping open wide the field of genetic cancer research. But she might be remembered best for her conviction to live, unapologetically, in the single-minded service of discovery. As she wrote: "The robin does not wait / To ask if you like his song; / He sings because he must." ◆





nstallation artist Willy Chyr, AB'09, has pulled some of his best ideas out of thin air—literally. Over the past five years, he has inflated thousands of balloons to build his signature sculptures, awe-inspiring mobiles that have hung from the ceilings of museums, science centers, and other spaces across North America. At 27, he's drawn international attention, including a six-month residency in Shanghai. But now, against the advice of nearly everyone he knows, Chyr is shifting his focus to a different project: video games, a medium that

most people don't think of as art.

To understand where Chyr's going, it helps to know where he's coming from. He became an artist almost by accident, by way of the circus. A physics and economics major, he blew off steam as a juggler, unicyclist, and magician for Le Vorris & Vox, the University's student-run troupe. At a festival where they were performing, he started working as aballoon twister. "It was like \$30 an hour," he recalls. "And as a student, for five hours, I thought that was a fortune." His subsequent experiments with balloons as sculpture led to two large-scale installations on campus, as well as a fashion show for Festival of the Arts.

Two days after Chyr graduated, the Museum of Science and Industry commissioned a work for a high-profile event in Millennium Park. (Someone there had seen photos of his work on the University's website.) That exposure quickly led to more invitations from local science centers and art venues, and in 2010 he secured his first residency, in Omaha, Nebraska.

Chyr's work had a wow factor that people remembered. By 2012 he had gained two national platforms. First, his balloon work appeared on the labels of four million bottles of Beck's beer. Around the same time, he conducted an online literary experiment called *The Collabouriters*, a crowdsourced novel that took shape as people submitted sentences of 140 characters or fewer and voted on which should come next.

The project emphasized process as much as product. Post-Collabouriters, Chyr began to reconsider

his installation-building process, which had always required the support of a team. In the past, his volunteers had helped him execute preconceived designs modeled after specific creatures—a comb jelly, for instance. Now he wanted to give his teams more autonomy and see where the process led. He began teaching the volunteers how to make individual structures, then chaining those together intuitively. "Before I'd just look at a tree," he says, "and draw that tree exactly the way it is. But now it's like, wait, how does that tree grow and why does it grow that way?"

As the design of his sculptures became more organicand collaborative, his interest in the medium was reignited. "I had no idea what the installation was going to look like until it was done," Chyr says. "I was kind of in the audience's shoes, and the people that were helping me were in my shoes." His work as an artist changed from designing an object to creating a visual language. Working with teams to implement it was "a mess" that he loved. The same went for his conversations with his volunteers—say, "a lawyer who spent all afternoon twisting balloons."

In one stretch in 2012, Chyr and his teams finished eight balloon works in eight weeks. By the end of that run he felt he was approaching a dead end creatively. His most lucrative offers were coming from malls and other outfits with hig marketing budgets—in other words, places that needed a decorator.

"If I do something like that, my career as an artist is just out the window," Chyr says. "The last thing I want to do is become a parody of my past success. I knew I needed to step back before I went too far in one direction."

His thoughts turned to video games. He already knew how to program, so he wouldn't have to spend years learning a new craft. By the end of 2012, Chyr had developed a prototype for what is his most ambitious art project to date: Relativity, a single-player puzzle game he plans to debut in 2016.

Relativity defies the conventions of mainstream

video games. There are no points, no instructions, no lives, and no deaths. Part of the game is figuring



Willy Chyr lives and works in Hyde Park.

out the rules as you go, which aren't necessarily intuitive; for one thing, in the world of the game, there are six fields of gravity. Chyr calls it a "game of counterfactual physics" that he hopes will give players a new perspective and an immersing experience. "You get ready for a movie, right? You get the popcorn. You dim the lights. I would love that same kind of approach when people sit down to play," he says.

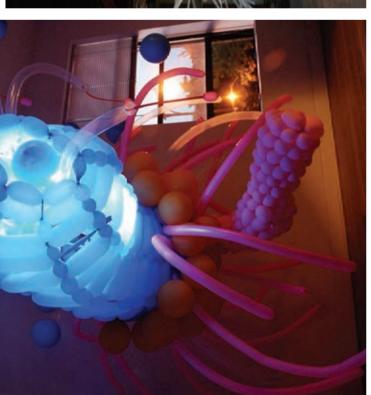
The game also defies many of the conventions of the art world itself, which has only just begun to accept video games as a means of artistic expression. (The Museum of Modern Art in New York established its collection in 2012.) Chyris excited by the possibilities of the medium. "It's on someone's computer, which is, if you think about it, a really intimate space," he says.

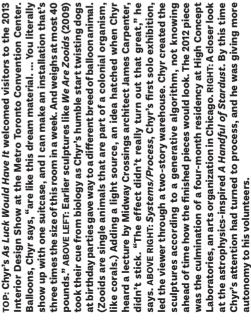
Chyr recognizes that some of his admirers in the art world might not be willing to follow him down the rabbithole. To him, the risk is worth taking in the name of not letting himself feel stuck. He sees the game and the balloons as part of the same body of work and hopes "to recreate the visual awesomeness from the installations." After that? He says a return to balloons is likely—no doubt with a new twist. ◆

Kim O'Connor, AM'02, is a freelance writer in Chicago. Her work has appeared in *Slate*, the *Rumpus*, the *Awl*, and other publications. In 2012 Chyr installed A Handful of Stardust at the TELUS Spark science center in Calgary, Alberta. Evoking star explosions and their role in making the universe, the piece took four days, more than a dozen volunteers, a scissor lift, and 1,500 balloons. It was in place for about a month.









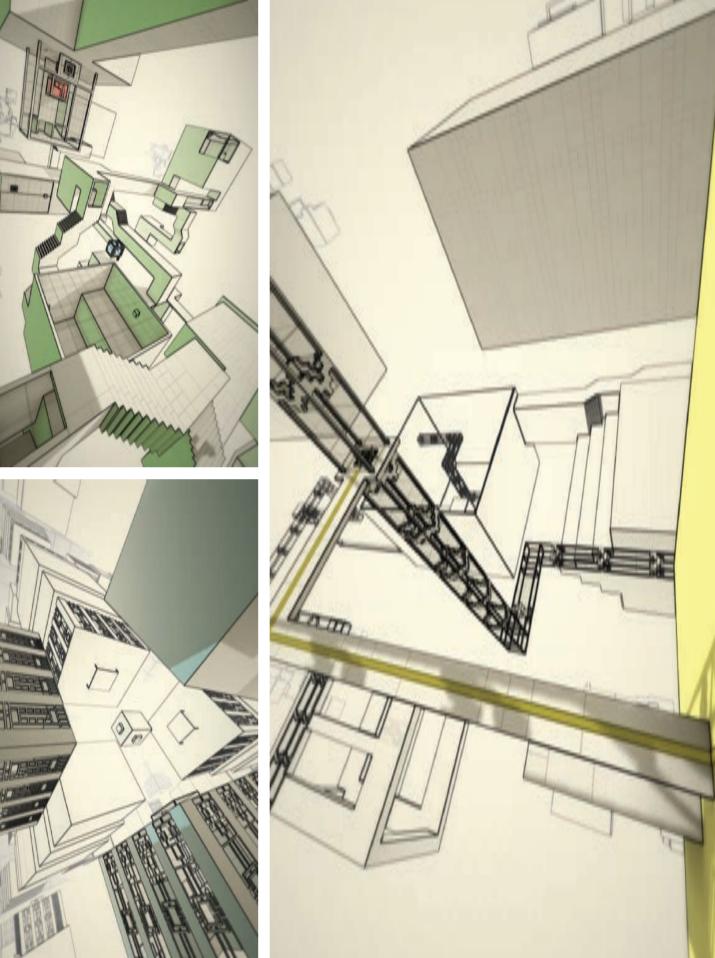
PHOTOGRAPHYBY DARREN GOLDSTEIN (TOP); WILLY CHYR (ABOVE LEFT); LLOYD DEGRANE (ABOVE RIGHT); FABY MARTIN (RIGHT)







ABOVE: Moment of Transition, commissioned by Beck's, was installed at Chicago's Ogilvie Transportation Center in June 2012. BELOW: Scenes from Relativity. Chyr wants his puzzle video game to fall between the first-person shooter titles that dominate the commercial market and artists' games that may be visually arresting and make a statement but have "no actual game design inside." For him the interesting, rewarding work is to create challenges of the right difficulty and to seamlessly acclimate players to the world's mechanics. The passionate, exacting community of video game players is a draw: "I'd like to work in a medium where people will not cut you slack."



The more they are

essay

IN SEARCH OF WORDS LOST

An alumnus remembers—and misremembers his Aims of Education address. BY WAYNE SCOTT, AB'86, AM'89 ILLUSTRATION BY MARC ROSEN



KNOWLEDGE IS instructed, the less liable they are to the Platohere the id is, there ego shall be. I know one thing, and that is al know no I glory in the fact that, built into the word aim is "confusion," disagreement, and argument.

Therefore, I propose to take as my revised title for this evening's address, "A Guess about Education."

—Jonathan Z. Smith, The Aims of Education, September 25, 1982

t was the most miserable week of my life. Maybe in some novel somewhere the first week away from home is a grand liberation, a sparkling opening up into the possibilities of the world. But for me, that sweltering week in September 1982, it was different: dust, sweat, the worst case of acne in my life, fear, spurts of terror, realizing my identity was as

substantial as jelly, and sleeplessness.

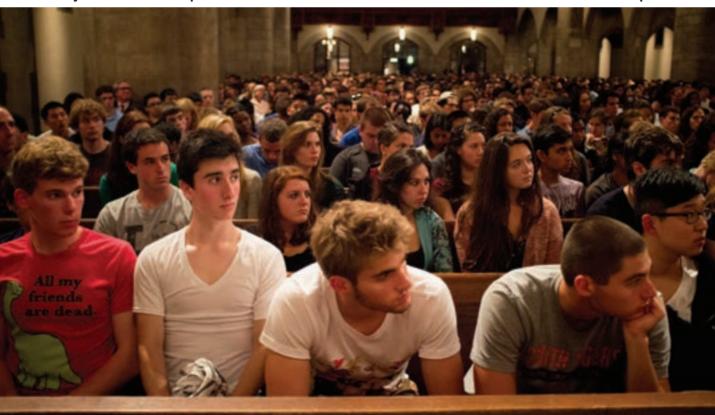
How many things could go wrong? Luggage in tow, anxiety in abundance, I disembarked at the first gothic-looking stone structure the airport shuttle stopped at, only to realize as it pulled away that I was at International House, not my dormitory, located half a mile away.

Unwilling to betray my stupidity, I dragged my suitcase and typewriter across the sun-stoked Midway Plaisance, arriving at my dormitory, near tears, a soggy mess of a human being.

An upperclassman helped bring my baggage up three flights of stairs. At the end of a narrow, dark hallway, across from the only men's room on the floor, I opened the wooden door—bed, desk, window, closet. A small square cell. At night I lay in bed, mind spinning with worry about math and German placement exams, and listened to a neverending tide of visits to the bathroom: streams of piss (loud, soft, hissing, splashing, the sputtering stop-and-start varieties), the flush of the toilet, joking and laughing, and endless shower rituals.

In a closet with a glass door and a hard wood seat in the middle of the hallway was one telephone—my only link to the outside world. But that week it was almost always occupied by upperclassmen who were on campus early for athletic teams. They called their girlfriends. I called my mother.

First-year students from Alper House listen to the 2013 Aims of Education address at Rockefeller Memorial Chapel.



Courses in the range of the liberal arts were designed to impart a certain savoir-faire.

When would this calamity of growing up be over? At the end of this longest week of placement tests and rides on public transportation and city tours and meals in the highceilinged, wood-paneled dining hall, there was the first important lecture.

It was held in Rockefeller Chapel. The mammoth, medieval-looking edifice was lit up against the night sky. The title of the event, The Aims of Education, was a nod to philosopher Alfred North Whitehead, who delivered the first such address in England in 1912. Surrounded by hundreds of freshmen, desperately trying to track the meandering discourse, my attention perked up when our speaker, Robert O. Anderson Distinguished Service Professor of the Humanities Jonathan Z. Smith—big glasses, a wizard's beard, bushy hair electrified with intelligence—shared a mischievous bit of wisdom. We would never have to dread meeting people at parties, he opined, because a well-rounded education would equip us to make conversation with anyone.

That's it?

At 18, I had never actually attended a cocktail party. I had not yet had my first alcoholic drink. I was the first person in my family to attend college. My parents and grandparents had scrimped to cover expenses for an education that would make me a smart-talking bon vivant? Really?

At times like these I had the uncanny ability to channel the voice of my maternal grandmother—a tone equal parts judgment and exasperation—who survived the Great Depression with stories of hardships survived and the goodwill of unspoken heroes. Oh, you've got to be kidding me!

The world is not "given." It is not simply "there." We constitute it by acts of interpretation. We constitute it by speech, and by memory, and by judgment. It is by an act of human will, through projects of language and history, through words and memory, that we fabricate the world and ourselves.

Thirty years after that unnerving pronouncement, I was at a summer party in my hometown of Portland, Oregon, with some colleagues, and their friends, and many people I didn't know. As the evening wore on, I circulated through the garden and asked guests about books they were reading, their take on the latest government quandary, or the kind of work they did. After chatting with an accountant who was passionate about The Lord of the Rings-one of the

more challenging types with whom I might find common ground—I had this self-congratulatory flash: I'm not half bad at this cocktail party thing.

This led to a realization: Professor Smith was right. I get it now. It really is all about the cocktail parties.

The truth of his provocation, I realized, had lurked in the background of every endeavor. As a consultant and teacher and neighbor and citizen, I had often needed to work with people with different interests, often widely divergent from my own, sometimes things I wasn't interested in at all. To be successful and effective, one had to be connected, not just professionally, functionally, but personally. The cocktail party was a microcosm. The skill to navigate them—to have an expanded curiosity, to find what was interesting in any random person, to discourse—was an indispensable talent at the root of civic connection.

After six years of education at the University of Chicago, I would eventually forget many things—the German language, for example—but I never forgot that professor's idiosyncratic observation. Why had his words about the cocktail party imprinted me? I had to get my hands on his Aims of Education, to read it again, to find out why.

But, there is a double sense to the word fabrication. It means both "to build" and "to lie." Education comes to life at the moment of tension generated by this duality.

Finding this old lecture was not easy. The University website where past addresses are kept includes nothing before 1991. Professor Smith, now emeritus, is unreachable, famously opposed to all technology. (A Chicago Maroon feature warns that as of June 2, 2008, Smith had never used a computer. He continued to type or handwrite all of his papers. Furthermore, he said he despises the telephone and thinks "the cell phone is an absolute abomination.") When I called his University extension—perhaps I'd be lucky?—I heard something I haven't heard in years: a phone ringing without terminus in any kind of voice mail.

An administrative person suggested I leave a handwritten note under his office door and wait six months for a reply.

I became obsessed. I wanted the exact words. I called the librarian charged with keeping University archives. She couldn't find the lecture but found a reference to it in a 2010 issue of the Maroon, which suggested that it had been published there in 1982. She told me to contact the folks in microforms, who advised me that the only people who had access to microforms were those who showed up in person.

But I'm in Oregon! I complained.

I HAD FABRICATED A STARTLING PIECE OF MISCHIEF THAT HAD **NEVER OCCURRED**

My obsession ballooned in proportion to the impossibility of getting my hands on the damn lecture. I called friends in Chicago to see if someone would head over to Regenstein Library. Exasperated, prepared to offer a bribe or to argue, I called microforms again. This time it was a different librarian. He explained the same rule, then asked in a quizzical tone, "So, what's so interesting about this lecture?"

"It's about cocktail parties," I blurted. "He said that the aim of a rigorous liberal arts education is to help you navigate cocktail parties more suavely."

"Well," he said, "That is interesting," and offered to photocopy the lecture and mail it to me.

What is required at this point of tension is the trained capacity for judgment, for appreciating and criticizing the relative adequacy and insufficiency of any proposal of language and of memory.

When the precious envelope from Regenstein Library arrived, I ripped it open and pored over Professor Smith's Aims of Education. The address was 16 pages, over 4,500 words long. I was swept back into that freshman despair of trying to track the essaying of a great mind over a bedeviling question: What is the purpose of a liberal arts education? Heart sinking, I reread the lecture multiple times before I had to admit a new truth: He never said anything about cocktail parties.

I had lived my life according to a lie. How could I have conjured such a dramatic misunderstanding?

For argument is not based on the world as it is, but rather on what the world might imply. It is the world refracted—no longer the world, but rather our world—a world of significance, interpretation, and, therefore, of argument.

That night of the Aims of Education, I was fatigued. I kept wondering whether my acne was worse than the student's sitting beside me. I was calculating how I might watch the next episode of M*A*S*H. I was wondering if I could petition out of my dormitory, citing emotional distress caused by the noisy lavatory.

In his actual address Professor Smith recalls ideas of liberal education from past eras, experiences "designed to impart a certain savoir faire, a broad civil, cultural, and civic veneer." He mentions "a genteel space" and liberal learning as "the acquisition of the civilized art of gossip," words and images that sound a bit like cocktail parties. I suppose in the moment he could have riffed on the cocktail party idea, but no other classmate, contacted decades later, could cor-

That night and the next few days after the address, I would have participated in conversations about this talk. Someone else might have said something about cocktail parties.

My memory of that night is layered with experiences that followed when I participated in a venerable institution: Friday afternoon sherry hour. Students and professors mingled in a wainscoted lounge, making introductions, sipping drinks, listening to the grand piano, talking about books and events of the day. At Brent House, the Episcopal chaplaincy at the University, where I lived for three years, it meant learning the proper way to brew tea, nibbling cookies, and making guests feel welcome. Over time these up-close-and-friendly occasions leveled the hierarchy. The hard edges of the world softened, opened up. I came to appreciate the art of conversation, the uses of friendliness, the importance of human connection, and the generosity of mentors.

Still, I had fabricated a startling piece of mischief that had never occurred. I had held onto it for the better part of a lifetime.

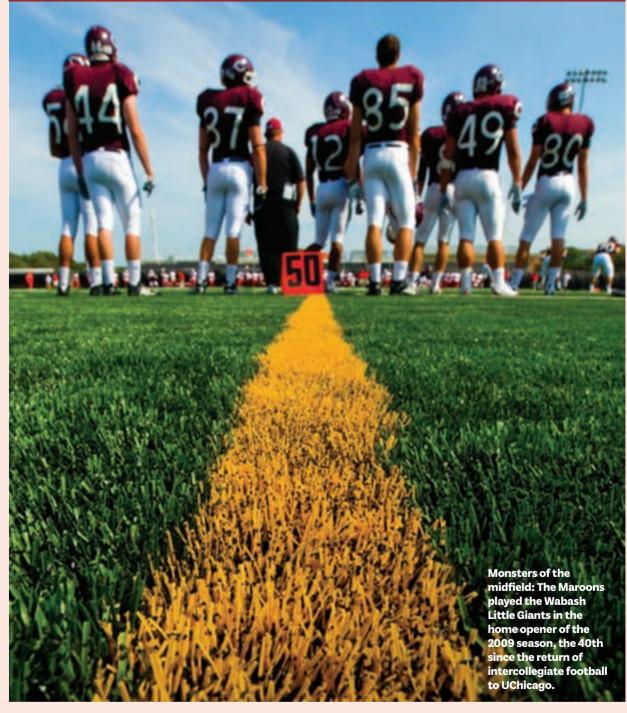
But perhaps I can be more generous toward that teenage boy who was musing about cocktail parties when he should have been tracking the professor's words. Perhaps he was merely interpreting. Perhaps he had a premonition of those Friday gatherings, or over time memories of sherry hours mingled in his mind with the address. Perhaps he was mediating what the professor said through the lens of his own unspoken longings: an urbane setting where people are interested in him and he can express his curiosity to know who they are; a place where, in spite of the vast unknown that stretched before him that evening in the chapel, he would eventually, to his surprise, belong. •

Wayne Scott, AB'86, AM'89, is a writer and teacher in Portland, Oregon. This essay is dedicated to Gretchen Holmes, AM'10, and Raymond Gadke, AM'66, both of whom went beyond the call of duty to track down the elusive address.



To read Jonathan Z. Smith's 1982 Aims of Education address in its entirety, visit mag.uchicago.edu/words-lost. For other addresses since 1991 and the history of this College tradition, visit aims.uchicago.edu.

peer review



The regulars

e called him The Guy. We didn't know his name. We didn't want to. To know his name would have felt wrong, somehow. We liked that he was anonymous. It added to his mystery.

The Guy sat at the second table on the south side of the fourth-floor reading room of the Joseph Regenstein Library. The Guy's most marked characteristics were his black beret, which he wore over his long gray hair, and his near-constant presence on the fourth floor. The Guy did not leave.

Once, I heard a girl look at The Guy and whisper to her friend, "I feel like he's staring into my soul."

I knew what she meant. When you walked onto the fourth floor, The Guy would fix you with a piercing glance. On the best days, he might then greet you with a little nod of the head, like a bouncer waving a celebrity past the velvet ropes. This was a sign that he recognized you, that you belonged. On these days, I felt very validated by The Guy.

It wasn't just that my friends and I studied on the fourth floor of the Reg in college. It was that we were fourthfloor people. Regulars. We had a table that was our table, and it was the best table. We felt great affection for our fellow regulars. Together, we drank coffee until our hands trembled, and stared at our computers with floaters dotting our vision. We hadn't gotten eight hours of sleep in a night since the Clinton administration.

The fourth floor was like Cheers, except nobody knew our names and there was no alcohol or talking and only rarely comedy. But apart from that: basically identical to Cheers.

It was generally understood that the higher you went in the Reg, the more you meant business. The A level was the University of Chicago equivalent of a frat house basement.

Frankly, we would not have been caught dead on the A level.

As first-years, we mostly studied on the second floor before realizing it was time to put away childish things. During second year, we scattered. Sarah went to the stacks, and I entered into a committed relationship with a thirdfloor study carrel.

Brinton was the first to pioneer the fourth floor. He lured the rest of us there with the kind of energy usually associated with religious converts and drug addicts.

"It's so great," he'd say after a productive day of studying. "You have to try it."

It was all a joke and it wasn't. Our tongue-in-cheek arguments for the superiority of the fourth floor at some point became entirely serious and unironic. The fourth-floor reading room was a compromise position between the hair-on-fire intensity of the fifth-floor reading room and the sensory deprivation of the stacks. It had nice views of Hull Gate. The tables were well laid out. Why would you study anywhere else? Why would you not study in a world that offered the fourth floor? It was the One True Floor.

By third year, we were firmly entrenched in our routine. I liked the feeling of coming in from the cold and bounding up the stairs, knowing I'd see Brinton or Sarah or Daniel or sometimes Jon or Anna. I liked that if I didn't show up for a few days, Brinton would say, "I haven't seen you on the fourth floor recently" with the tone of a pastor tending to a wayward member of his flock.

We paid close attention to our fellow regulars and monitored their joys and sorrows. If you looked hard enough, you could see the entire human drama play out on the fourth floor.

We watched our comrades grind through readings like "Making the Cut: The Semiotics of Scissors in Early Modern Belgium." We witnessed the silent desperation of graduate students who had lost all faith in their dissertation topics. We saw the best minds of our generation totally bullshit Sosc papers the night before the due date.

We paid close attention to our fellow regulars and monitored their joys and sorrows. If you looked hard enough, you could see the entire human drama play out on the fourth floor.



The fourth floor: A compromise between the hair-on-fire intensity of the fifth floor and the sensory deprivation of the stacks.

We took heart at the hand-in-hand arrival of the Med School Lesbians, a couple who made us believe our loneliness was only a temporary state. Based on her reading material, it appeared one of them was studying to become an OB-GYN. Nothing seemed more beautiful or perfect.

We watched love blossom between the guy we called José and the woman we called the Lamp Lady because she always brought a small desk lamp with her. (At least, we think that's what was going on. But really, if you leave the fourth floor together, what do you expect? People are going to talk.)

Should we have gotten out more? Undoubtedly. Were many of us single? You know, maybe that's not your business.

We abandoned our table only during peak study times for the rest of the student body. At these times, the fourth floor would be overrun with nonregulars, or, as Brinton dubbed them, "tourists."

Tourist season disrupted the delicate ecosystem of the fourth floor. Among regulars, the silently agreed upon custom dictated you could flout library rules and eat something quiet as long as you didn't make a show of it. Tourists ate anything they wanted. Who did they think they were, we asked one another incredulously. Honestly.

Sometimes I think I didn't do college right. I didn't take a Jell-O shot until I was 25, but one night in college I did make a map of the world out of tangerine peels. (Because I went to the U of C, I'll specify: it was a Mercator projection.) I usually woke up around 7:30 a.m. I was obsessed with strangers who studied on the same floor of the library as I did.

But then I remember the time Sarah and I played a sleep-deprived game of hangman on the fourth floor as a study break. I was so tired I couldn't see that WA__US indicated "WALRUS," so she stuck two Bic pens in her mouth like tusks. If I did college wrong, I'm not sure I want to be right.

Today, I work on campus, and nearly every spot that held some sacred undergraduate memory is now just a part of my routine.

But the fourth floor is the one place I never visit. I think about it, of course, and I wonder if The Guy is still there and whether José and the Lamp Lady drove off into the sunset. I'd try to find out, but I never learned their names.

I don't know how I would feel to see other people at our table. It would be like finding out someone who broke your heart is dating a Swedish veterinarian. Sometimes you're better off not knowing.

I tell myself I don't go back because I don't need to. But I know that's not the reason. If The Guy saw me on the fourth floor today, I'd just be another anonymous face, a tourist in someone else's home. •

Susie Allen, AB'09, works at the University of Chicago by day and performs improv comedy with the Improvised Twilight Zone and her two-woman group Smart Pant by night. Don't worry, she gets out more now.

Unraveling

attling south on Chicago's "L" with my daughter and 200 pounds of her stuff wedged into six suitcases, I wish Lyda would turn and say she'll miss me. With her phone pressed to the window, she snaps pictures of big city possibilities instead and finger flicks them to friends. Wrigley Field's rooftop bleachers. Snap. Swish. A river that will run green for St. Paddy's Day. Snap. Swish. She's already left me, I realize; her body's just waiting to catch up after I drop her at college for the first time. I dread the reverse journey, me alone on the train racing to O'Hare to catch a Tucson-bound flight.

A year ago I sat in her high school bleachers with different expectations.

"Why do you want her to go away to school?" a mom friend asked as we watched our daughters stride across the football field during the marching band's halftime show, smoothly changing directions, their patent leather shoes in perfect step.

She should go to the best she gets into, I thought, my eyes wandering left to the University of Arizona's stadium. Regardless of where that might take her.

"I would think you'd want her to stay here, given how close you are. And, well ... what happened."

What happened was years of single parenthood after Lyda's father died. Cancer swiped Peter with a magician's sleight of hand. His absence left me staring across the kitchen table at toddler-aged Lyda, wondering how to put the tablecloth back under our lives.

After the funeral, after I returned the last casserole pan, after my mother left, I stood at the kitchen sink feeling adrift. Something tugged at my pant leg. I glanced down to see Lyda, her finger pointing to an O-shaped mouth, a hungry chick looking to her mother. It struck me then that I wasn't alone as long as I had her.

Widowhood was a free fall-a bag of potato chips was breakfast, morning started midafternoon, and friends didn't know what to do with me. Lyda pulled my parachute's rip cord. We floated on afternoon naps, Wednesday swim practice, Saturday birthday parties in the park. And later, Tuesday night marching band maneuvers.

Her "I've got a better way" attitude infused our lives with a feistiness that vanked me to the other side of grief:

"Don't paint the wall that yucky color."

Mid-roll, I pause. "It's what the decorator suggested."

"She doesn't know anything." Fanning through color swatches. "Here. It's even called Peace and Harmony. Isn't that what you're looking for?"

"Yes, but ..." Laying roller down. "The other's totally boring."

The bond we constructed was as tight as skinny jeans fresh from the dryer. She spoon-fed me soup when I suffered from a wicked case of food poisoning and rendered honest answers to "does this make me look fat?" She rode sidecar as I maneuvered into and out of a second marriage: sprinkling petals before my feet as I walked down the church aisle, swabbing my forehead as I birthed 11-pound Ava, and, after the marriage crashed, bolstering my negotiating skills the morning of the property settlement by reminding me of how we'd been done wrong.

I knew she'd leave, though that day felt far off, even when we searched for a perfect-fit college. Together, we clicked through admissions websites, walked ivy-clad campuses, listened to chatty guides rhapsodize about their schools. It was all so heady. Like a coach heading to the championship game, I read up on tactics, attended College Nights, paid for SAT prep classes, edited essays.

We were in it to win.

At Declaration Breakfast, seniors announced their choices; nearly threequarters shouted "U of A." When Lyda yelled, "University of Chicago," teachers nodded approval but moms raised evebrows.

"Chicago's so far away and different," my bleacher-sitting mom friend said. "She'll never be the same."

Going away wasn't that big of a deal. She'd still need my guidance and input. I'd still be a major part of her life. Right?

Lyda spent the summer sorting choosing which yellow T-shirt to take, the one from Urban Outfitters or the one from Forever 21? These pink pants or this flowered sundress? Do they

I imagined life without her teenageness. I'd lose the languages of both texting and layering. Middle age would smack me upside the head faster than Lyda's fingers could spell o-l-d f-a-r-t.



The rest of the story: After graduating this June, Lyda Harris, AB'14, could safely venture onto the seal in the Reynolds Club.

wear flip-flops in Chicago? In January? When I offered advice, she tossed back her long auburn hair, dismissing my 30-years-too-late fashion ideas.

That's how we'd say good-bye, I feared. She'd turn away from me, flicking her mane in dismissal, and I'd sob uncontrollably, like I had every first day of school, every summer camp send-off.

I imagined life without her teenageness. I'dlose the languages of both texting and layering. Middle age would smack me upside the head faster than Lyda's fingers could spell o-l-d f-a-r-t. Emptiness bubbled up as well, dark loneliness I hadn't felt since Peter's death. What had I been thinking encouraging her to apply out of state?

Ava tried to make things better. "After Lyda's gone we can play the games you want on Game Night."

Monopoly wasn't much fun with two players, I thought. Too bad, as the game was perfect for teaching Ava about planning ahead.

"Can I have Lyda's room?" she asked, squeezing my hand, "My ponies and teddy bears need room to roam."

On the night before our Chicago flight, I stood at the sink jamming a taco into my mouth. Lyda flopped onto the floor with last year's prom dress she was resizing for a friend. Obviously she wanted to talk. I had yet to pack, change the cat litter, write instructions for the house sitter. But I waited, knowing there were few of these impromptu moments left. She stitched while I ate.

"Mom, would you do me a favor?"

Did she want me to mail her a homemade birthday cake? Her favorite glazed in chocolate? Where was that recipe anyway?

"Would you wear something other than black or tan?" She pulled thread through taffeta. "And don't have stains on your clothes." She waved the needle at salsa dribbling down my black shirt.

On campus, dressed in a new outfit Lyda chose for me—tawny slacks and a ruffled maroon shirt, one I refrained from eating in-we troop behind bagpipers to the University's main gate. At the wrought-iron curlicues, the

parents head right while our children proceed through—a symbolic tearjerker if ever there was one.

The pipers blow their last, announcing the moment has arrived.

"Is this it?" Surprise in her voice, as if she just now understands that she'll be executing a solo turn. For what seems like months, she holds my gaze with eyes that say she'll miss me.

I realize that I had it all wrong. She isn't leaving me. It's me that must step aside—step into my life so that she can march into hers. I'll finish my novel, hike Yosemite, and help Ava move her toys onto Lyda's shelves. Pivoting, I head toward the O'Harebound train. On the way, I'll pick up Scrabble, a game that works well for two or three players. •

Lisa K. Harris, AB'82, MBA'84, is a wildlife biologist who has published essays and articles on adventure travel and science. She manages an environmental consulting firm in Tucson, Arizona, and recently had the pleasure of seeing Lyda, AB'14, graduate.

NOTES

OPERATIC RANGE

Mike Nichols, EX'53, will direct an upcoming film adaptation of Terrence McNally's play Master Class, about opera legend Maria Callas. Oscar-winning actress Meryl Streep will play the lead. A writer, producer, and comedian, as well as a director of film, television, and theater, Nichols is one of only a dozen people ever to earn an Emmy, a Grammy, an Oscar, and a Tony. Master Class, which will air on HBO, is set at Juilliard in the early 1070s, where Callas taught a series of master classes in voice.

FUSION HOME COOKING

Jonathan Wu, AB'or, has opened Fung Tu, a Chinese-American restaurant on New York City's Lower East Side. On the menu are dishes inspired by his mother's fusion cooking, like China-quiles, a Chinese take on Mexican chilaquiles. Fung Tu (which translates to "Wind Soil") has been reviewed in the New York Times, the Wall Street Yournal, New York Magazine, and the New Yorker.

PLAYWRIGHT PRODIGY

Ironbound, a new play by Martyna Majok, AB'07, debuted at Steppenwolf's Garage Theatre as part of the theater company's yearly First Look series. An acerbic comedy set in a New Jersey bus station, Ironbound covers 20 years in the life—and the love life—of 40-something Polish immigrant Darja, giving, a Chicago Tribune review



Actors Billy Fenderson (left) and Lusia Strus star in Ironbound, a play written by Martyna Majok, AB'07.



NEW SOUNDS FOR NEWMAN

Lila Newman, AB'09, is the 2014 recipient of UChicago's Claire Rosen and Samuel Edes Prize for Emerging Artists, which comes with a \$30,000 grant to help fund artistic projects. Newman's winning proposal was for a performance piece about Ora D. Nichols, a pioneer of radio sound effects. Nichols's work on the sound effects for Orson Welles's 1938 radio drama, The War of the Worlds, contributed to the broadcast's verisimilitude. Although Nichols's work is well known, she herself is not; Newman, who writes and performs for A Prairie Home Companion, hopes to recover a fascinating, all but forgotten chapter in the history of sound.

said, "an indelible portrait of how easy it is for working-class women to fall through the cracks." The play, drawn in part from the experiences of Majok's mother, made the Kilroys' list, an annual catalog of exceptional new work from female playwrights, and ran from July 26 to August 24.

POPULAR HISTORY

Chicago Reader named Paul Durica, AM'06, PhD'13, Best Popular Historian on its 2014 Best of Chicago list. Durica's company, Pocket Guide to Hell, stages historical reenactments of events like the Haymarket riots and gives "guerilla walking tours" including "The Hidden History of the University of Chicago" and "The Mysteries and Wonders of Bridgeport." Durica is also a lecturer in the College.

COPY THAT

Donald Stevens, ID'14, has been appointed to the Ringer Copyright Honors Program with the US Copyright Office. Begun in 2013, the program offers paid fellowships to individuals who have demonstrated a strong interest in copyright law. In 2012 Stevens postponed his graduation from the

Law School to spend a year in Budapest, Hungary, as a Boren Fellow, studying copyright law, taking language classes, and writing a research paper. As a Ringer Fellow, Stevens will spend two years working for the Office of Policy and International Affairs, which is part of the US Department of Commerce and helps advise the federal government on domestic and international copyright issues.

A LIFE OF SCIENCE

Roy Curtiss III, PhD'62, received the 2014 ASM Lifetime Achievement Award from the American Society for Microbiology. A life sciences professor at Arizona State University, Curtiss directs the Centers for Infectious Diseases and Vaccinology and Microbial Genetic Engineering in ASU's Biodesign Institute. His research focuses on molecular biology and genetics, specifically of Salmonella bacteria and vaccines. His previous awards include the Sydney Rubbo Orator medal from the Australian Society for Microbiology. He is a member of the National Academy of Sciences.

Vandervalk, '16 — Minna Jaffery, '15, and Kathryn

RFI FASFS

The Magazine lists a selection of general interest books, films, and albums by alumni. For additional alumni releases, use the link to the Magazine's Goodreads bookshelf at mag.uchicago.edu/alumni-books.

A POCKET GUIDE TO ANALYZING FILMS

By Robert Spadoni, PhD'03; University of California Press, 2014 Why just sit back and watch a movie when a closer look can reveal intricate patterns and deeper meaning? A Pocket Guide to Analyzing Films combines written explanations with nearly 200 images—including stills from Stagecoach, Psycho, Groundhog Day, and other staples of American cinema—to help students and movie lovers decode a film's many artistic elements, from narrative and character development to cinematography, editing, and sound.

THE POWER OF INACTION: BANK BAILOUTS IN COMPARISON

By Cornelia Woll, AB'99, AM'00; Cornell University Press, 2014 The bank bailouts following the 2008 financial crash were some of the most controversial public policy decisions in recent history. But what was the financial industry's role, and how did it affect the legislation's outcomes? Cornelia Woll looks beyond typical lobbying-focused criticisms to examine how the financial industry's behavior influenced government bailouts in three pairs of countries: the United States and United Kingdom, France and Germany, and Ireland and Denmark.





THE COSMIC COCKTAIL: THREE PARTS **DARK MATTER**

By Katherine Freese, PhD'84; Princeton University Press, 2014 Dark matter and dark energy make up an estimated 95 percent of the known universe, yet they remain one of modern science's most enduring enigmas. Research physicist Katherine Freese tells the inside story of the epic quest to understand these elusive particles—from the early predictions and discoveries of scientists such as Fritz Swicky, who coined the term "dark matter" in 1933, to the deluge of data from today's laboratories, satellites, and particle accelerators.

THE BRUNIST DAY OF WRATH By Robert Coover, AM'65:

Dzanc Books, 2014 The Brunist Day of Wrath is Robert Coover's behemoth of a sequel to The Origin of the Brunists, published in 1966. Despite nearly a half-century gap between the two novels (during which Coover wrote 14 other novels, three books of short fiction, and a collection of plays), Wrath is set only five years later. A critique of religious fundamentalism, the books chronicle the development of the Brunist cult in the fictional Midwest coal town of West Codon.

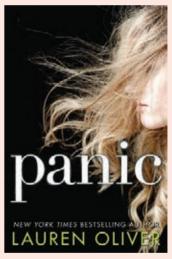
ZERO HUNGER: POLITICAL CULTURE AND ANTI-**POVERTY POLICY IN NORTHEAST BRAZIL**

By Aaron Ansell, AM'02, PhD'07; University of North Carolina Press, 2014 As the host of the 2014 World Cup and 2016 Summer Olympics, Brazil has become a recent fixture in the global spotlight. Aaron Ansell's ethnographic study assesses President Lula's flagship antipoverty program, Zero Hunger (Fome Zero), and its impact on

the northeastern state of Piauí, Ansell argues that "intimate hierarchies" between the poor and the elites, which officials sought to dismantle, facilitate the participation of all citizens in the political process.

THE FIRST ANGLO-AFGHAN WARS: A READER

Edited by Antoinette Burton, AM'84, PhD'90; Duke University Press, 2014 Long before Operation Enduring Freedom, Afghanistan was a battleground for the British Empire, which fought to expand its influence in Central Asia and defend its colony in India. Antoinette Burton sheds light on the first two Anglo-Afghan wars by presenting 26 primary source materials from 1817 to 1919, including travel writings, newspapers, intelligence reports, diaries, and poems. The collection represents women and non-Westerners along with well-known historical figures.



PANIC

By Lauren Oliver, née Laura Schechter, AB'04; HarperCollins, 2014 How far would you go for a chance at your dream life? In her latest novel, New York Times best-selling author Lauren Oliver transports readers to Carp, a dead-end rural town of 12,000 bored, hopeless residents. Panic is an annual contest reminiscent of the Hunger Games, in which high school seniors, like protagonists Heather and Dodge, risk life and limb for a cash jackpot. Portraying the intensity of fear combined with excitement, Panic also explores the need to belong.

—Ingrid Gonçalves, AB'08

ALUMNI NEWS

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THE OI LEGACY

Since 1919 Oriental Institute researchers have been committed to understanding and preserving the ancient cultures of the Middle East. Graduate student Jonathan Winnerman, AM'10, copies hieroglyphic inscriptions for an Oriental Institute archaeological excavation in Tell Edfu, Egypt, providing precise documentation that could stand as a replacement in the absence of the original monument. Explore the Oriental Institute's commitment to cultural heritage preservation at phoenixsociety.uchicago.edu/oi.

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Let us help. The @UChicagoAlumni account acts as a connecting hub for alumni. Send us a tweet identifying yourself as a grad, and we'll follow you. Follow us back to get up-to-theminute class notes and find UChicago friends.

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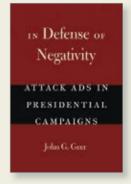
TERROR AND WONDER

Architecture in a Tumultuous Age

BLAIR KAMIN

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OCTOBER



IN DEFENSE OF NEGATIVITY

Attack Ads in Presidential Campaigns

JOHN G. GEER

"Geer has set out to challenge the widely held belief that attack ads and negative campaigns are destroying democracy. Quite the opposite, he argues in his provocative new book: Negativity is good for you and for the political system."

—Washington Post

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DEATHS

TRUSTEES

Steven G. Rothmeier, MBA'72, died of Lewy body disease and Parkinson's disease May 14 in Naples, FL. He was 67. A University of Chicago trustee emeritus and a life member of the Council on Chicago Booth, Rothmeier was a decorated infantry officer in Vietnam who went on to spend most of his career at Northwest Airlines. Beginning in the finance department, he rose to the position of chairman and chief executive officer in 1985. Following the sale of the company, he formed Great Northern Capital, a merchant banking and investment firm, and was its chairman and chief executive officer until his 2012 retirement. He is survived by his mother and two brothers.

FACULTY AND STAFF

Robert M. Grant, Carl Darling Buck Professor Emeritus of New Testament and Early Christian Literature, died June 10 in Chicago. He was 96. Grant was a renowned American historian of ancient Christianity and wrote more than 30 books on the topic, including Miracle and Natural Law in Graeco-Roman and Early Christian Thought (1952). A recipient of Fulbright and Guggenheim fellowships, he was president of the Society of Biblical Literature, among other scholarly organizations. He was also an authority on German U-boats whose works on that subject included U-Boat Hunters: Code Breakers, Divers, and the Defeat of the U-Boats, 1914-1918 (2004). Survivors include his wife, Margaret (Horton) Grant, LAB'35; daughter Susan Slattery, LAB'66; sons Doug M. Grant, LAB'59, Peter W. Grant, LAB'63, AM'71, and Jim Snyder-Grant, LAB'74; six grandchildren, including Anjali Grant, AB'90; and two great-grandchildren.

Tonya Gunn, a customer service representative in Facilities Services, died July 7 in Chicago, the unintended victim of a driveby shooting. She was 44. Gunn attended Morgan Park High School and studied at Robert Morris University before joining the UChicago staff in 1993. The single mother of an 11-year-old girl, Gunn loved to cook for family and friends and was a lifelong musician who played drums, piano, and guitar and enjoyed R&B music. She is survived by her daughter, her mother, and

James Lawler, professor emeritus of French, died July 28 in Paris. He was 83. An Australia native who earned a doctorate at the Sorbonne, Lawler was a specialist in modern French poetry. While serving as the first professor of French at the University of Western Australia, Lawler founded the journal now known as Essays in French Literature and Culture. He taught

at UChicago from 1979 until his retirement in 1997. After retiring, Lawler served as president of the Association Internationale des Études Françaises and of the Association des Amis de Rimbaud. In 1999 he was awarded the Prix du rayonnement de la langue française by the Académie Française. He is survived by a daughter and a son.

Marvin Mirsky, AM'47, died May 20 in Chicago. He was 90. Mirsky taught for many years in the College and in the University Extension. He also founded discussion groups on contemporary literature and film, and led tours to Europe and Canada focused on literature and theater. He is survived by his life partner, Mary Ann Whelan; a son, Seth Mirsky, LAB'76; and

Bernece Kern Simon, AB'36, AM'42, of Chicago, died May 19. She was 99. The Samuel Deutsch Professor Emerita at the School of Social Service Administration. Simon retired in 1979 but continued to teach in SSA's doctoral program; she was also the book review editor of Social Work and served on several national boards dedicated to social work. She is survived by a daughter, a sister, and a grandson. Her husband, Marvin L. Simon, PhB'33, JD'36, died in 2006.

Benjamin Spargo, AB'50, SM'52, MD'52, died May 30 in Chicago. He was 94. A WWII veteran, Spargo was a renal pathologist and professor emeritus of pathology who was one of the first physicians to use the electron microscope for clinical diagnosis. He received the Gold Key Award from the Medical and Biological Sciences Alumni Association in 1993 in recognition of his outstanding and loyal service to the Division of the Biological Sciences and to the University. He is survived by his daughter, Patricia Spargo, LAB'71, and one grandchild.

1930s

Gerald Ratner, PhB'35, JD'37, died June 20 in Chicago. He was 100. A WW II veteran and a senior partner in the law firm of Gould & Ratner, he was a longtime supporter of UChicago. His generosity included establishing a student loan fund at the University of Chicago Booth School of Business, endowing a distinguished service professorship in the Law School, helping to fund the Gerald Ratner Athletics Center, and funding a gallery in the Smart Museum of Art. Ratner's awards from UChicago included the University of Chicago Medal, the Law School's Distinguished Alumni Award, and the Alumni Service Medal. He is survived by three nephews.

Mary Elizabeth "Sue" (McKeon) Whitman, PhB'31, AM'32, died March 27 in Huntsville, AL. She was 103. A journalist who worked for the Office of War Information during WW II, Whitman served after the war as chief of employment at the United Nations Relief and Rehabilitation Agency. Later she worked at the Department of State before retiring in 1976 and going on to spend many years as a volunteer on behalf of the elderly. She is survived by a son and a granddaughter. Her husband, Roswell "Ross" Hartson Whitman, PhD'33, died in 1962.

Jerome S. Katzin, AB'39, JD'41, of San Diego, died June 14, less than two weeks after the death of his wife of 75 years, Miriam Eve (Manchis) Katzin, AB'39 (see below). He was 96. Katzin was a partner and managing director at Kuehn, Loeb & Co. in New York City before moving to Lehman Brothers Holdings Inc., where he established himself as a nationally known expert in public works financing. An adviser to the National Rural Utilities Cooperative Finance Corporation, he served on more than 20 corporate boards. Survivors include a daughter; two sons, including David B. Katzin, SB'67; a brother, Marshall P. Katzin, AB'42; and two granddaughters.

Miriam Eve (Manchis) Katzin, AB'39, of San Diego, died June 2. She was 96. She worked as a reading teacher in New York and in California, where she started and ran a program in remedial reading for elementary school students. She and her husband, Jerome S. Katzin (see above), were wellknown philanthropists who funded the creation of the Judaic studies department at the University of California, San Diego, and endowed many other programs at the university. She is survived by a daughter; two sons, including David B. Katzin, SB'67; and two granddaughters.

Frederick G. Smith, SB'39, died May 4 in Ames, IA. He was 96. A biochemist and plant pathologist, he taught at Cornell University and the University of Rochester before joining the faculty of Iowa State University in 1948. He taught at Iowa State until retiring as a professor emeritus and also served for 17 years as chair of the school's Department of Botany and Plant Pathology. He is survived by his wife, Ursula; a brother; and two grandsons.

Janet Kalven, SB'34, of Cincinnati, OH, died April 24. She was 100. One of the founders of the Grailville retreat center in Loveland, OH, Kalven was a feminist educator, author, and activist. She was inducted into the Ohio Women's Hall of Fame in 1990 for her contributions to the advancement of women. She is survived by three nephews, Jamie Kalven, LAB'65; Michael J. Kalven, LAB'69; and Peter Kalven, LAB'71, and a niece, Katherine H. Bauer, LAB'78.

1940s

Reed Buffington, AB'42, AM'47, died June 9 in Santa Rosa, CA. He was 94. A WWII veteran, Buffington was a longtime advocate for community college education and

was the founding president of Chabot College in Hayward, CA, which named its performing arts center for him in 2010. After his retirement from Chabot in 1981, he was senior vice president of administration for Lucky Stores, a supermarket chain. He is survived by three daughters, one son, eight grandchildren, 13 great-grandchildren, and one great-great-grandchild.

Albert Abe Schy, SB'42, of Hampton, VA, died May 24. He was 93. AWW II veteran, he was a researcher in aeronautical science at NASA's Langley Research Center for more than 40 years and remained a distinguished research associate at the facility after his retirement. Schy was a longtime volunteer at the Peninsula Peace Education Center and at his synagogue. Survivors include two daughters, three sons, eight grandchildren, and one great-grandchild.

Seymour Slive, AB'43, PhD'52, died June 14 in Cambridge, MA. He was 93. Slive, an authority on 17th-century Dutch painting, was the Gleason Professor Emeritus of Fine Arts at Harvard University; he was also Cabot Founding Director Emeritus of the Harvard University Art Museums. He served on the board of directors of the Guggenheim Museum of Art in New York City and on the advisory committee of the J. Paul Getty Museum in Los Angeles. Survivors include his wife, Zoya Slive, LAB'42, AM'50; two daughters; a son; and five grandchildren.

Jeanette (Scherer) Fiss, AB'46, AM'50, of Albany, CA, died May 16. She was 90. Fiss was a psychologist and an activist on women's issues who founded the women's studies program at Ramapo College of New Jersey. Survivors include two daughters, a son, a brother, a sister, four grandchildren, and two great-grandchildren.

Nancy (Kaplan) Fischer, AB'47, died June 16 in New York City. She was 86. Fischer was a lifelong educator, serving as an adviser to the Department of Education at the City College of New York. She taught at the Long Ridge School in Stamford, CT, and later served as its director. She is survived by a daughter, two sons, a stepdaughter, a stepson, six granddaughters, three grandsons, and four great-grandchildren.

Helen Harkonen, AB'47, died June 1 in Warwick, NY. She was 86. A former assistant curator at the Minneapolis Institute of Arts and at the Walker Art Center in Minneapolis, she was for many years a professor of art history at the State University of New York at New Paltz. She is survived by

Sally Morris Petrilli, LAB'44, PhB'48, of Chippewa Falls, WI, died April 30. She was 85. A lifelong musician, she performed frequently as a singer and classical guitarist; she also taught guitar. After earning a graduate degree at the age of 54, Petrilli went on to a career as a tenured professor of instructional communications at Governors State University in University Park, IL. Survivors include a daughter, a son, and two grandsons.

Maurice Crane, AM'50, died June 1 in East Lansing, MI. He was 87. A Michigan State University professor from 1953 to 2000, Crane headed the school's G. Robert Vincent Voice Library, a collection of sound materials including speeches, lectures, and performances. He was nominated for a Grammy in 1984 for his cassette compilation of the speeches of President Franklin Delano Roosevelt. He also hosted *Passing* Through, an interview show on local television. Survivors include his wife, Elayne Crane, AM'50; two daughters; two sons; three granddaughters; two grandsons; and four great-grandchildren.

Janet Gray (Frazee) Hayes, AM'50, of Laramie, WY, died April 21. She was 87. Hayes was elected to the San Jose (CA) city council in 1971 and became the city's first female mayor in 1975. After serving two terms as mayor, she managed the medical practice of her husband, Kenneth Hayes, MD'52, and volunteered for the League to Save Lake Tahoe. Her husband died in 2013. She is survived by three daughters, a son, and eight grandchildren.

Robert William "Bob" Lickiss, AM'50, died May 6 in Peoria, IL. He was 89. A B-17 bombardier/navigator in the Army Air Corps during WW II, he was one of the first military aviators to be trained in the use of navigational radar. He retired as a lieutenant colonel in the Air Force and spent 30 years as a sales representative for a legal publisher before retiring in 1990. Survivors include his wife, Colene; four daughters; two sons; 13 grandchildren; and eight great-grandchildren.

H. Martin Weingartner, SB'50, AB'50, AM'51, died May 6 in Nashville, TN. He was 85. Weingartner was the Brownlee O. Currey Professor of Finance in the Owen Graduate School of Management at Vanderbilt University until his retirement in 1998. The former president of the Institute of Management Sciences, he was a prolific author and a consultant to a number of corporations. He is survived by his wife, Joyce; a daughter; three sons; and four grandchildren.

Karl R. Zimmer Jr., AB'50, of Indianapolis, died May 18. He was 87. A US Navy veteran, Zimmer worked in the publishing industry before taking over his family's paper-packaging manufacturing business in Indianapolis. He was an enthusiastic volunteer who served on the Indiana Council on World Affairs, the Athenaeum Foundation, and the Indiana Humanities Council; he was also the author of three books. Survivors include a daughter, two sons, a sister, and two grandchildren. His wife, Barbara Evans Zimmer, AB'49, died in 2010.

John "Jack" Thomas Hickey Sr., MBA'52, died June 7 in Glenview, IL. He was 88. A WWII veteran, Hickey worked at Motorola for 50 years, rising from a sales position to become the corporation's chief financial

officer and retiring in 1986. He continued to serve on Motorola's board of directors for another decade. Survivors include his wife, Joanne; a daughter; four sons, including John T. Hickey Jr., JD'77, James P. Hickey, MBA'82, and Roger P. Hickey, MBA'88; two brothers; two sisters; ten granddaughters; ten grandsons, including James P. Hickey Jr., MBA'12, and Chicago Booth student John T. Hickey III; and two great-grandchildren.

George Herbert Borts, AM'49, PhD'53, died May 2 in Providence, RI. He was 86. The George S. and Nancy B. Parker Professor Emeritus of Economics at Brown University, where he spent his entire career, Borts was an expert in international finance and transportation. He served as chair of the Department of Economics at Brown and was managing editor of the American Economic Review. He is survived by his wife, Muriel; three sons; a brother; and three grandchildren.

George S. Fabian, MBA'54, died June 7 in Bryn Mawr, PA. He was 84. A longtime advertising executive, he began his career at the market research firm Alfred Politz and later worked for advertising agencies including Young & Rubicam and Backer & Spielvogel; he also worked at Johnson & Johnson, Campbell Soup, and other companies. In 2009 Fabian was elected to the Market Research Council's Hall of Fame. He is survived by his wife, Norma; a daughter; a son; and two granddaughters.

Sidney J. Blatt, PhD'57, died May 11 in Hamden, CT. He was 85. Blatt was a psychologist who developed the influential "double helix" theory of depression, which holds that depression can arise from one's identity or one's relationships. He spent most of his career as a professor at Yale University, where he served as chief of the psychology section of the Department of Psychiatry. Survivors include two daughters, a son, and nine grandchildren.

Sam Greenlee, EX'57, died May 19 in Chicago. He was 83. Greenlee was one of the first black officials of the US Information Agency to serve overseas. His 1969 novel, The Spook Who Sat by the Door, was based on his experiences there in the 1950s and '60s. He adapted the book into a 1973 film for which he served as writer and producer; in 2012, it was named to the National Film Registry of the Library of Congress as one of the country's "culturally, historically, or aesthetically significant" films. He is survived by a daughter and a granddaughter.

Jean Pehrson (Sutton) Rumsey, AM'57, died May 14 in Stevens Point, WI. She was 80. After raising her children, Rumsey returned to school and earned a PhD in philosophy from the University of Wisconsin. She became an associate professor at Clarion University of Pennsylvania, retiring in 1999. During her retirement, she tutored second-graders and taught many classes in the University of Wisconsin's lifelong learning program. She is survived by her husband, Charles; two daughters; a son; two brothers; a sister, Marjorie (Sutton) Dickinson, AM'55; and five grandchildren.

1960s

Frederick F. Cohn, AB'60, JD'62, died April 30 in Evanston, IL. He was 75. He began his career in the Cook County public defender's office, volunteered as a civil rights attorney in Mississippi in the 1960s, and later became a criminal defense attorney. He also taught criminal law and procedure at John Marshall Law School and offered legal services pro bono to neighbors in need. He is survived by his wife, Mary; a daughter; and a son.

Paul W. Waltz Jr., SB'61, MBA'67, of Fox Lake, IL, died April 18. He was 74. An early expert in computing, Waltz worked in the APL programming language developed in the 1960s. He later taught courses in ethics and critical thinking at the College of Lake County. He is survived by three daughters, a son, a brother, a sister, and seven grandchildren.

Janet Mae (Anderson) Buskey, AM'62, died May 2 in Cincinnati, OH. She was 80. A registered occupational therapist, Buskey spent more than 40 years working with patients in hospitals, nursing homes, and universities in a number of states. She was an avid gardener, a rescuer of animals, and a dedicated quilter. Among the survivors are her husband, John H. Buskey, AM'61, PhD'70; a daughter; two sons; a sister; and a granddaughter.

Carol Welt, AM'59, PhD'62, of Mansfield Center, CT, died June 11. She was 77. Welt was a biomedical researcher at the University of Wisconsin before moving on to administrative positions at institutions including the National Science Foundation and the New York University School of Medicine. She retired as the University of Connecticut's assistant vice provost for research and executive director of the Office for Sponsored Programs. She is survived by a son.

Margaret Arlene Payne, PhD'63, died June 18 in Chapel Hill, NC. She was 87. Payne's first academic position was as a professor of nutrition at the University of Kansas Medical Center; she later worked as a professor at the University of Missouri-Kansas City before joining the University of North Carolina at Chapel Hill, from which she retired in 1990. She was a great-aunt of President Barack Obama and is also survived by two brothers.

Vincent G. Harding, AM'56, PhD'65, of Denver, CO, died May 19. He was 82. A civil rights activist and speechwriter for Rev. Martin Luther King Jr., Harding was a founder of Atlanta's Mennonite House and traveled the southern United States working against segregation throughout the 1960s. He retired in 2004 from the Iliff School of Theology in Denver, where he was a professor of religion and social transformation. He is survived by his wife, Aljosie; a daughter; and a son.

Bernard J. Witczak, MBA'66, died June 12 in Sturgeon Bay, WI. He was 81. Beginning his career as a draftsman, Witczak then became a mechanical engineer and served in the US Army. He later held a number of executive positions and retired as the president of Utilimaster, a truck-body manufacturing company, in 1981. Survivors include his wife, Phyllis; three daughters; two sons, including Peter Witczak, MBA'88; a brother; a sister; seven granddaughters; six grandsons; and a great-granddaughter.

Michael J. Barron, MBA'67, died May 25 in Sylvania, OH. He was 78. After service in the US Navy, he embarked on a career in the railroad industry, working at the Chicago, Burlington and Quincy Railroad; the Detroit, Toledo and Ironton Railroad; and the Grand Trunk Railroad. He retired as the chief executive officer of the Ann Arbor Railroad in 1006. He is survived by his wife, Marguerite; a daughter; four sons; a sister; and 16 grandchildren.

Jerrold F. Schwaber, AB'69, PhD'74, died June 6 in Haddonfield, PA, of complications following surgery. He was 67. He was an immunologist and cell biologist whose work as a graduate student at UChicago pioneered the creation of monoclonal antibodies, now used in a variety of cancer drugs. Schwaber continued this line of research as a professor at Harvard Medical School, Boston Children's Hospital, Hahnemann University Hospital, and Thomas Jefferson University. He is survived by his wife, Susan Hoch, AB'70, MD'74; two sons; and four grandchildren.

1970s

Werner Joseph Dannhauser, PhD'71, died April 26 in Frederick, PA. He was 84. Dannhauser was a writer and editor at Commentary magazine before beginning his academic career. The author of Nietzsche's View of Socrates (1974), he taught at institutions including UChicago and Michigan State University and retired as professor emeritus of government at Cornell University. He is survived by two daughters, including **Anna Ruth** (Dannhauser) Marks, AB'93, AM'98, and four grandchildren.

Donald W. Larmouth, AM'65, PhD'72, of Green Bay, WI, died June 12. He was 73. A member of the University of Wisconsin-Green Bay faculty from 1970 until he retired as professor emeritus in 2000, he served as the university's dean of arts, sciences, and graduate programs for several years. Larmouth was an avid fisherman who wrote three books and many articles on the topic. Survivors include his wife, Judy Ann; a daughter; a son; three granddaughters; and a brother.

Eugenia "Jean" (Sloan) Merczak, AM'77, died June 8 in Northfield, IL. She was 75. The former head of children's services at the Catholic Charities of the Archdiocese

of Chicago in Waukegan, IL, she was also a long time volunteer at the Art Institute of Chicago. She is survived by her husband, Richard; three daughters; two brothers; a sister; three granddaughters; two grandsons; and two great-granddaughters.

Michael Joseph Shortley III, JD'79, of Fairport, NY, died of cancer May 7. He was 59. After beginning his career in litigation and antitrust law, Shortley became a specialist in telecommunications law and worked at companies that included Bell Atlantic, Frontier, Global Crossing Telecommunications, and Level 3 Communications. He was also an avid runner and active in his church. Survivors include a brother.

1980s

Nancy Jan (Garner) Milnes, AM'81, of Chicago, died of amyotrophic lateral sclerosis (ALS) on May 15. She was 68. She spent more than 40 years as a licensed clinical social worker who provided therapy and neurofeedback to her patients. She volunteered for organizations dedicated to the welfare of women and children, including Aunt Martha's Youth Service Center. Survivors include two sons, a brother, and a granddaughter.

Gail Lee Duddy, MBA'85, of River Forest, IL, died May 10. She was 61. Duddy began her career as a business analyst at McKinsey & Company; she later joined the railcar leasing company GATX Corporation, where she retired as senior vice president of human resources in 2008. She is survived by her mother.

David Walton, AB'89, of Eugene, OR, died January 9 due to complications of diabetes. He was 47. A longtime information technology professional, Walton worked most recently in the information services department of the University of Oregon. He was an accomplished pianist and cellist who loved many kinds of music. He is survived by five siblings.

1990s

Robert Abrahamian, SB'99, died June 5 in Chicago. He was 35. Abrahamian was a passionate collector and preservationist of 45 rpm Chicago soul music records and the longtime host of Sitting in the Park on Sunday evenings on WHPK-FM. He worked as a computer programmer for several years. Survivors include his parents, a sister, and a grandfather.

2000s

John Meyers, a degree candidate in the master's program in computer science in the Physical Sciences Division, died of a brain tumor June 27 in Chicago. He was 42. Meyers held a law degree from Loyola University School of Law, where he met his wife, Hanh. He is survived by his wife and son.

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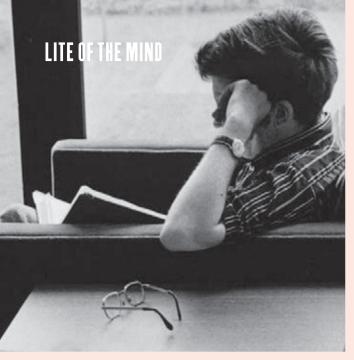
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Of time and the reader

Speed-readers scan text at about 1,500 words per minute (wpm), but highperforming college students read at 450 wpm. We're sure that first-years getting an initial taste of the humanities and social sciences Core are asking, "How do I make that jump?"

The key is to not read along silently in your head, according to the Student Counseling Services' web pages on speed-reading, which offer this and other tips for improving your reading clip. Of course, there's no such thing as free speed-reading-the trade-off can mean decreased comprehension or enjoyment, especially for certain kinds of books. Speed-reading is best when used for dense contemporary humanities texts, but not, the website advises, for math, physics, or 19th-century philosophy.

See the chart to the right for a breakdown of how long it would take to read (or reread) some well-known books at a rate of 450 wpm.

– Minna Jaffery, '15, and Kathryn Vandervalk, '16

To see reading times for more books as well as a link to a website where you can calculate your reading speed, go to mag.uchicago.edu/450wpm.

A Dance to the Music of Time by Anthony Powell

~1,000,000 words: 37 hours, 2 minutes



Infinite Jest by David Foster Wallace

543,709 words: 20 hours, 8 minutes



Ulysses by James Joyce

265,000 words: 9 hours, 47 minutes



Moby-Dick by Herman Melville

209,117 words: 7 hours, 45 minutes



Walden by Henry David Thoreau

114,634 words: 4 hours, 15 minutes



Persuasion by Jane Austen

87,978 words: 3 hours, 16 minutes



Portnoy's Complaint by Philip Roth, AM'55

78,535 words: 2 hours, 55 minutes



The Adventures of Tom Sawyer by Mark Twain

70,570 words: 2 hours, 37 minutes



Cat's Cradle by Kurt Vonneaut, AM'71

52,359 words: 1 hour, 56 minutes



Fahrenheit 451 by Ray Bradbury

46,118 words: 1 hour, 43 minutes



Animal Farm by George Orwell

29,966 words: 1 hour, 7 minutes



Word count estimates via Amazon.com's text stats.



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AB'70, MAT'71
Track and Field

PAUL "TONY" HINKLE

SB'20 Basketball, Football, Baseball

KELLY HUMPHRY

AB'97 Volleyball, Basketball

LARRY LISS

AB'63, MAT'65 Basketball

WESLEY MCGHEE

AB'94 Track and Field, Football

JIM RAPTIS

AB'05 Football, Baseball

KORRY SCHWANZ

AB'07 Basketball

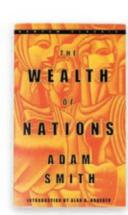
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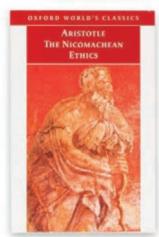
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