

# THE UNIVERSITY OF CHICAGO MAGAZINE





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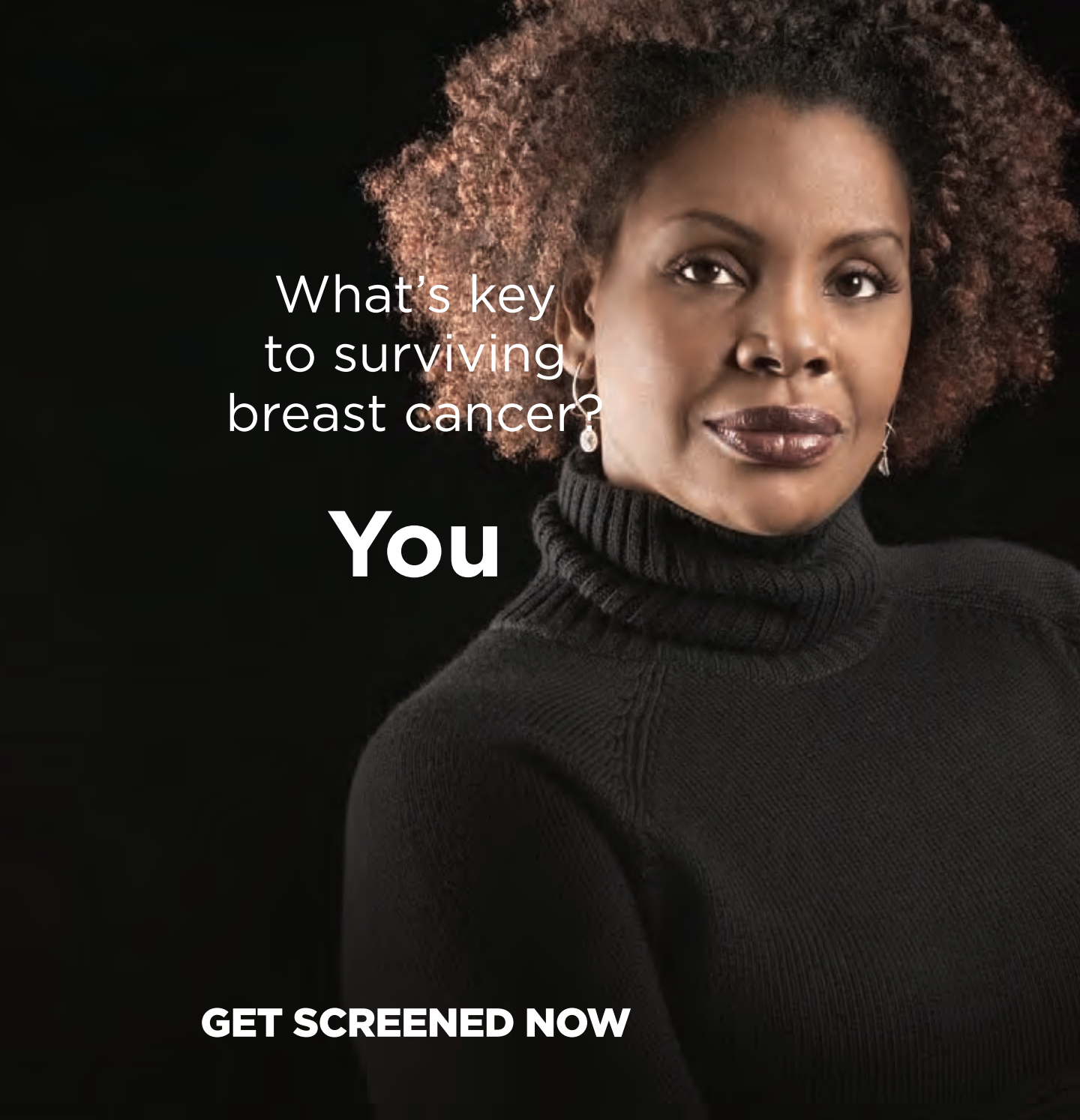
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# THE UNIVERSITY OF CHICAGO MAGAZINE

SEPT-OCT 2011  
VOLUME 104, NUMBER 1



The cover: People have seen unidentified flying objects in all sorts of everyday phenomena (see page 46). *Illustration by Gerard Dubois.*

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## EDITOR'S NOTES

# Bibbidi bobbidi boo

BY AMY BRAVERMAN PUMA

Cinderella at the ball is the same person, only better. The frocks she wears to clean her stepmother's home might have been new when her stepsisters wore them, but by the time we meet her they're ragged hand-me-downs. The ball gown that her fairy godmother bestows not only improves Cinderella's outward appearance but also makes her smile, stand tall, and exude confidence.

For the *University of Chicago Magazine*, it was time for a makeover. When we last redesigned in 2002, styles were different, and nine years later our need for an update showed. So we found a fairy godmother, the international design firm Pentagram, to work their magic and help us find a new wardrobe, one distinctly University of Chicago. Two of the firm's New York-based partners came to campus to get a feel for the place, learn its history, meet with deans and officers, and comb through the *Magazine's* century of archives.

A few months later they returned

with their version of a ball gown. The *Magazine* would be slightly smaller and perfect bound, book- or journal-like. Its covers, unlike newsstand publications, would have thought-provoking images and no cover lines, appealing to our readers' sense of curiosity. The layouts would be free of frills and ornamentation, letting words and images take center stage. Alumni News would be tinted a rosy hue, evoking a nostalgia appropriate for that section. We editors were sitting taller in our chairs already.

We still had to put on the dress, stand still for alterations and fittings, and ride our horse-drawn carriage to the ball. We hope that, like Cinderella, we've kept our true character, our focus on informing, provoking, and entertaining. Our staples are still alumni, faculty, and the larger UChicago community. Yet we're wrapped in more modern, more engaging, and easier-to-follow packaging. Some readers will like our new look right away, others might take time to adjust, and some will hate it (see Letters for where to send missives). We hope most of you will decide we're much the same, only better.

1917



1953



1964



1986



The *Magazine* has gone through many style changes over the years.



# LETTERS

## The University hired *whom*?

I read with wonderment the appointment of Mayor Richard II (July–Aug/11) and of Henry Paulson (July 12, 2011, UChicago News for Alumni and Friends e-newsletter) to the Harris School of Public Policy Studies in an effort to reinforce the great American tradition of “failing up.” Surely, it will be hard to beat Daley’s destruction of Chicago’s system of taxation by means of slushy tax increment finance districts. Surely, it will be hard to beat Paulson’s record of conflicts-of-interest-ridden looting of the US economy.

## There are even more soon-to-be-unemployed autocrats that the University should pursue to burnish its brand.

Yet there are even more soon-to-be-unemployed autocrats that the University should pursue to burnish its brand. Muammar al-Gadhafi would make a great addition to the newly aggressive department of fine arts. He could start a fashion major, since he seems to be so adept at millinery and capes. Bashar al-Assad of Syria is a dictator-ophthalmologist, a perfect addition to the medical school in these days of scary health-insurance reform. I predict that this very magazine would then have an essay by some fossilized immoralist of the Chicago school of economics describing how these change agents epitomize laissez-faire and *laissons détruire* principles (if that is what they are), even though the defense of Friedmanite economics is becoming quaint, antique, and malign. Yet it’s a win-win-win situation, don’t you think?

*Donald Gecewicz, AB’76, Chicago*

## Kudos to health-disparities doc

A remarkable and uplifting story. I’m very glad to know that Monica Vela, MD’93, is out there (“Course of Treatment,” July–Aug/11). She’s doing work in medical education that’s desperately needed. Thank you, and please convey my best wishes with tons of encouragement to Dr. Vela.

*Mike Lawler, Chicago*

## Questioning climate change

A glaring error occurred in the Investigations article “Smoke Signals” (July–Aug/11)—the accompanying photo of smokestacks. Carbon dioxide is colorless, odorless, and tasteless. The two smokestacks show other products of combustion. By implication, carbon dioxide is seen as a pollutant. It is not. Science? Politics?

Are Raymond Pierrehumbert’s mathematical/computer models validated? What is the assurance that they are correct and useful? We are squandering huge investments (recent estimates \$100 billion) if the dire predictions fail to materialize.

Consider: would a public-employee pension fund today lock up securities for decades based on an invalidated computer model and receive the expected return? Our world uses a comparable model to explain climate change. The correlation between anthropogenic carbon dioxide and rising temperatures is very poor; 1935 to 1970—scientists forecasted a new ice age. Before the Little Ice Age, temperatures were higher than today without the presence of anthropogenic carbon dioxide.

The scientific reality of the carbon cycle is ignored. Without carbon dioxide in our atmosphere and photosynthesis, everything green dies. Minimizing CO<sub>2</sub> is nonsensical; meanwhile, natural

carbon continues to increase.

Water, 140 million square miles of earth’s surface, generates water vapor constantly. It traps the earth’s warmth, like carbon dioxide. Clouds (water vapor) reflect the sun’s energy back out into space, never reaching the earth. He points out that “the atmosphere is a fluid” and that “fluids yield ‘all sorts of ... intricate behavior.’” Carbon dioxide as the only cause of climate change is absurd.

A better approach might be a study of the cyclical nature of the sun and its impact on the oceans.

*Richard C. Janzow, MBA’63  
Wilmette, Illinois*

## Nuance of stroke treatment

I enjoyed Lydialyle Gibson’s article “Forward Stroke” (Next Generation, July–Aug/11). As someone who does neurovascular research, I thought it would have been interesting if the author had mentioned that other methods of using tissue plasminogen activator (for example, by IV) are contraindicated in hemorrhagic stroke. It’s remarkable that a drug used in a certain way can be lifesaving and in another way be deadly for the same condition.

*Samantha Schoeneman, AB’08  
Chicago*

## When breast is best ...

Whoever selected that photograph to accompany “Mother’s Milk” (Arts & Sciences, July–Aug/11) betrays the bias of writer Ruth E. Kott, AM’07, and Joan Wolf, AM’92, PhD’97—a mother who isolates herself in the corner of her child’s segregated room to feed her baby. This mom has more problems than breast-feeding. “Not all mothers enjoy breast-feeding” is a meaningless statement that has nothing to do with Kott’s assertions. It’s not about enjoyment of breast-feeding or motherhood.

The fact is that artificial feeding products, aka “formula,” are inferior in every way to breast milk. Even given Kott’s and Wolf’s assertions, the fact



## BLAST FROM THE PAST

Re your article on David Axelrod (AB’76) in the October/92 Magazine. I don’t know whether to admire or to be frightened by his ability to help political candidates win their elections. I suppose it depends on the character of the candidates he chooses to help.

*Roland H. Peterson, SB’37, St. Albans, West Virginia*

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### NELL MINOW, JD'77

**Background:** After law school, Nell Minow went on to work in several areas of the U.S. government. There she met Robert Monks, and together they have created three companies and written several books on corporate governance. Minow also enjoys moonlighting as a movie critic known as Movie Mom.

**A Maroon Is:** Says Minow, "The intellectual energy and creative curiosity that I was surrounded by was one of the things that attracted me to the school and has really been a sustaining force in my life."

**Giving Back:** Minow finds time to stay involved with the school. Why? "I received an alumni award last year, and on the very stage where I graduated I was honored alongside a Nobel Prize winner! One of the school's great strengths is that it makes you feel like you're part of a community for life." **BMW North America is pleased to support Nell's efforts with a donation to the University of Chicago's Doc Films.**

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remains that babies who are not breast-fed get sick more and exhibit other deficits (lower IQs, higher rates of obesity, etc.). Kott may not think that's important. Many people do.

And enough with the protest that sometimes moms need help to get breast-feeding going. Meaning what? That having to consult a health-care provider renders breast milk unimportant? How scientific is that?

*Marguerite Herman, MAT'73  
Cheyenne, Wyoming*

### ... and when it's not

Finally, some common sense in the breast-feeding debate. I was under tremendous pressure to breast-feed while living in Maine with my first child, now starting college. I tried everything from a nuclear-powered breast pump (a truly loud and terrifying contraption resembling my dairy-farming neighbor's milking machine) to the La Leche League, who assured me that "everyone can breast-feed, if she is truly committed."

After three weeks my scrawny baby was howling, and I was ready to be committed. On New Year's Eve we were in the Eastern Maine Medical Center's Emergency Room, and the poor thing would not stop crying, and I was nursing 24/7. But nothing came out of my breasts. The pediatrician on call gently convinced me to try a bottle of soy milk, that I wouldn't "ruin everything" by supplementing. The baby grabbed at it and sucked it down immediately. She was practically starving.

The guilt was overwhelming. All the water I drank, the warm showers I took, the hand and machine breast pumps I tried ... I simply could not produce enough milk. But if we look at history, there have always been wet nurses, and babies have been traded around in villages when women could not feed them—wet nursing was not just for the upper classes. If a woman could not feed her baby, arrangements were made, goat's milk was used (which was easier for infants to digest than cow's milk).

And yet today, or at least when my 14- and 17-year-old daughters were babies, I received dagger looks and some biting remarks from some granola-headed women who insisted that I had not "tried hard enough." They soon regretted interfering, as I was born in New Jersey and had no problem set-

**I often think of him when  
I stand in front of a  
class, meet a student,  
and try my damndest  
to be a good teacher.**

ting them straight. I described the blossoming of my scrawny infant into the beautiful, fleshed out toddler who was clearly thriving on soy formula.

I am glad the bad science is being exposed for what it is—politically correct garbage. I understand that there is some truth to the antibodies received in the early days and weeks of nursing, and if it's possible for the infant to get some of the colostrum the mother produces, that would be wonderful. But that means two to three weeks of some nursing, if at all. Our entire generation of 40- and 50-somethings were brought up on formula, and most of us seem to have turned out fine—except for those who seem to turn out bad science.

*Amy Lesemann, AB'85  
Ann Arbor, Michigan*

### Elegy for Gray

When the July–Aug/11 issue arrived with news of Charles Gray's death, I immediately stepped into the living room and sat down. I first met Professor Gray taking his course on Macaulay's *History of England*. I wrote my essay comparing David Hume's *History* to Macaulay's, and Gray's comments were sharp, thoughtful, and generous. Some time later I arrived unannounced at his office to ask if he could supervise my thesis. My first adviser had left the University. My subject, a relatively obscure philosopher of the Scottish Enlightenment, was not on any other faculty member's radar. Professor Gray was as kind, patient, and honest with me that day as he would be every subsequent time we spoke. He listened to my anxious stammer of ideas, asked a few questions, and then warned me that he had only a basic acquaintance with the great books of 18th-century Europe. I remember my surprise at his expression of humility. He then followed up, "But if that does not seem a great hindrance to you, I'd be happy to supervise your thesis," or something like that. I shook his hand, expressed



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## LETTERS

my sincere gratitude, and left.

Over the next two years I also had the privilege to teach a section or two of Western Civ, so I joined the other instructors for the weekly lunch meetings to debate how best to teach Pericles's "Funeral Oration," Abelard's *History of My Calamities*, or to argue with Karl Weintraub, AB'49, AM'52, PhD'57, about whether Foucault was appropriate, useless, etc., for such an undergraduate course. I often talked with Professor Gray about the course and my goals, choices, and ideas. Again he listened patiently, asked careful questions, and offered gentle but firm advice. I soon learned that he took his Civ course as seriously as anything he taught, reworking the readings and the assignments with almost obsessive attention.

I completed my thesis and graduated primarily because Charles Gray gave me his time and guidance. He read every word through every molasses-like chapter I gave him, sometimes the same chapter more than once. He chased the point of every paragraph and each chapter, I imagine, like someone chasing a fish in a flooded basement. But he never complained, never shooed me away, returned each chapter with his trademark penciled comments and suggestions. He once told me, "Michael [always "Michael"] you have a strikingly impressionistic way of reading a text." I didn't know what he meant, and the mystery of his claim brought me up a bit short. But over the years I've come to understand how savvy he was at evaluating my abilities. He had paid attention to me, he told me the truth, and there was never a moment when he was anything but patient, kind, and armed with a gentle humor.

I loved him for that. I often think of him when I stand in front of a class, meet a student, and try my damndest to be a good teacher. I mourn his death.

Mike Kugler, PhD'94  
Orange City, Iowa

### How immigration shapes families

I was struck by the overwhelming number of vicious attacks, in the July–



Aug/11 Letters section, on the article about Joshua Hoyt, AM'95 ("Dream Deferred," May–June/11). Immigration is a complex issue, particularly as it relates to intrafamily relations. My grandmother "followed the rules" and, fleeing the pogroms as a teenager, escaped from Pinsk to Chicago just after World War I. Her own mother and several siblings were not so lucky due to quotas imposed in the early 1920s, so they—also "following the rules"—had to go to Argentina instead. My grandmother's life, and thus those of her children and derivatively my own, were surely affected by this lack of a family support network.

The DREAM Act, which involves improving opportunities for those who came to this country as children and consequently before they were capable of controlling their actions or destinies fully or at all, poses unique questions of human agency, responsibility, incentive, and policy optimization. Given the *Magazine's* readership, one would have expected a balanced and nuanced assessment of the relevant arguments and conundrums from a host of perspectives: ethics, sociology, law, history, domestic politics, international relations, religion, and so forth. ...

Please accept this letter as a belated effort to weigh in for the proposition that the Hoyt piece raises interesting, complex, and perhaps unanswerable questions and was therefore an appropriate item for publication in the *Magazine*.

Andrew S. Mine, AB'81, Chicago

### Civil action

It's always a good corrective to one's own worldview to read the letters in the *University of Chicago Magazine*. No matter the subject, one's sensibilities are likely to be abused by one's fellow curmudgeons, and the sensitive soul is taken aback to discover not all fellow graduates of said university hold the

exact same opinion as oneself. If one allows, and is in the proper mood, it is both sobering and entertaining.

Nonetheless, reading the many letters (July–Aug/11) excoriating the *Magazine's* article concerning Joshua Hoyt, AM'95, and illegal immigration, I was appalled to find one fellow alum reduce support for amnesty to vote grubbing and the "perverted racial calculus" that assumes Mexicans will vote Democratic, and another withdraw his legacy support of the University owing to the *Magazine's* "distinct irreverence for those of us who are still dedicated to the notions of honor, duty, truthfulness, and love of freedom and justice."

One can only hope that they will see their words in print and shake their heads at their own folly. It is one thing to experience discomfort with the content of an article in an alumni magazine, or with the inherent bias that may seem to appear in what is essentially a profile of a person with whom you may, quite justly, disagree. It is another matter entirely to impugn the honesty and character of one's intellectual or political opponents based on one's disagreement with them.

Martha Hoffman, AB'87  
Brooklyn, New York

### A healthy dose of partisanship

I would like to thank the *University of Chicago Magazine* and, indirectly, Joshua Hoyt, AM'95, for providing regular entertainment from the Letters section. I wasn't disappointed by the July–Aug/11 issue's crop responding to your article on Hoyt and the Illinois Coalition for Immigrant and Refugee Rights. They included the usual Milton Friedman, AM'33, acolytes rehearsing their catechism, tea party MBAs trying out theirs, Malthusian prophets of doom, and alums with fond memories of the good old days when immigrants like "Diana," the undocumented stu-

**The letters were a good reminder of the intellectual diversity of the institution, which as I recall made for combative classroom discussions.**

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# LETTERS

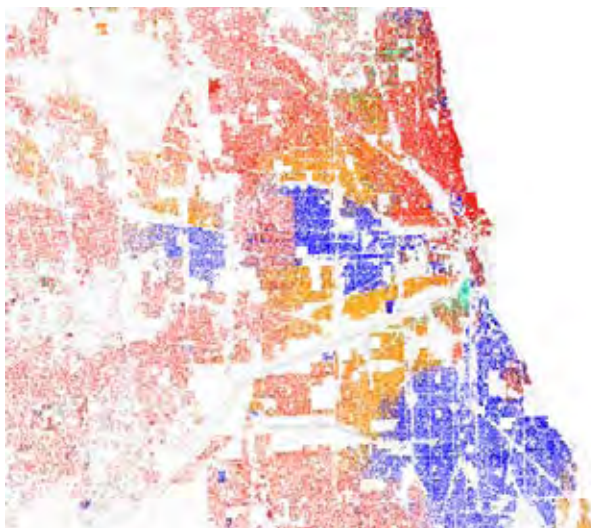
dent activist described in the article, probably wouldn't have been let in to the U of C in the first place.

The letters excoriating Hoyt were a good reminder of the intellectual diversity of the institution, which as I recall made for combative classroom discussions. They're a good reminder, as well, of the point that a liberal education by itself doesn't necessarily produce particularly thoughtful, compassionate, or intellectually honest people. (Or even ones with a basic command of geography: for example, Mexico is in North America, not Central America.) So, in one letter we learn that low-paid immigrant agricultural workers drive down wages all by themselves, as if declining rates of unionization and Wall Street have had nothing to do with it. By this letter writer's logic, by the way, women should be deported too, since they are also paid less for equal work.

Then we get finger wagging at immigrants who didn't "follow the laws," as if the immigration laws alone are sacred, fair, and unbroken. ... And in another letter, we get statistics culled from far-right nativist websites (cis.org) innocently presented as impartial facts. All these statistics purport to prove, of course, is what xenophobes already think they know about Latinos: that they are lazy, sexually promiscuous, unintelligent, and disloyal. Then come the denunciations of the "Marxist disease" that may motivate pro-immigrant campaigners from one letter writer who forgets that all Chicago undergrads are repeatedly exposed to the virus for their first two years.

I'm not writing to excoriate the *Magazine* for printing the letters, and even if I made enough money to make alumni donations, I wouldn't threaten to withdraw them just because I disagree with so-and-so from the business school. So thanks all around—to the subjects of your article who are putting their education to work for equality, and to the letter writers for reminding us of the obstacles in the way. And for the laugh.

*John Patrick Leary, AB'01, Detroit*



Eric Fischer's digital maps "make older cities look good," says Gann. For more maps by Fischer, AB'95, see [flickr.com/photos/walkingsf/sets](http://flickr.com/photos/walkingsf/sets).

## Plato's republic

The letters responding to the article about Joshua Hoyt impelled me to read it again. The subtitle clearly states the nature of Richard Mertens's story: "Joshua Hoyt Leads the Fight for Immigrants' Rights in Illinois."

One correspondent found it to be "grossly one-sided and overly suggestive." He continued, "Frankly, the failure to edit this piece properly is appalling." In effect, he is challenging the right of the *Magazine* to publish the article as written. The paradox is that this letter writer is exercising his First Amendment right to speak his mind, and at the same time wanting the editor to limit the right of Mertens to accurately portray the lifework of Mr. Hoyt.

Another writer took the position that "we do have a democracy in this country, and the voters in this democracy get to decide who deserves citizenship and who does not." The implied subtext here is that the voters already have decided this question. But what about Mr. Hoyt's right to "lead the fight for immigrants' rights," and to organize immigrants to petition the government for changes in current laws?

Speaking of "democracy," we might consider Plato's *Republic* and recall that our country was organized as a republic, relying on elected representatives to exercise their best judgments to decide important matters, such as how one becomes a citizen. Several years ago—with the rise of political televi-

sion personalities—as Congress considered an immigration reform bill, we shifted (during a legislative break) from a representative form of government to one where the people directly rule the government. Plato ranked the democratic form of rule just one step above being ruled by a despot—both inferior to the representative rule of a republic.

Paraphrasing Benjamin Franklin, we had a republic—and have not been able to keep it.

But Joshua Hoyt is not deterred. "The culture has to change," he says. Mertens writes that his coalition aims "to build connections between immigrants and nonimmigrants and to bridge the cultural divide that has made immigration reform so difficult."

*Richard M. Janopaul, AB'52  
Oklahoma City, Oklahoma*

## Diatribes dissected

I don't recall if I read your May–June/11 cover story "Dream Deferred," about Joshua Hoyt's (AM'95) work on behalf of those who immigrated to this country illegally. Maybe it got lost in the avalanche of reading material that crosses my desk. But I did read the resulting diatribes in your July–Aug/11 Letters section. The alumni who attacked you forget the purpose of an alumni magazine. You have a very different mission from the *Economist* or *Businessweek*.

In their apparent zeal to ship immigrants back to their countries of origin—no matter how oppressive their



regimes or impoverished their citizenry—these alumni also ignore the source of America's greatness. Economists now predict that immigration will help America escape the graying of the population afflicting Western Europe and Japan. Because of what they indicate about the *Magazine*, your publication of these critical letters increased my pride in having graduated the University of Chicago and my admiration for our alumni magazine.

*David Sobelsohn, AB'74, Washington*

### Re immigration: ditto

A quick note to affirm the letters regarding the Richard Mertens piece ("Dream Deferred," May–June/11). A very bad and disturbing bit of propaganda.

*Mark R. Aschliman, MD'80  
Whitefish Bay, Wisconsin*

### Seeing not necessary for believing

In their July–Aug/11 letter, Jane R. Shoup, PhD'65, and Stefan P. Shoup, AM'64, discuss interactions between ecological, political, and sociological concerns. Certainly we are faced with a situation of unprecedented complexity. Certainly unsustainable human activity (particularly the profligate waste of Earth's built-in resources) is starting to produce catastrophic consequences. In relation to their claim along the way that "One is either blind or in a state of cognitive dissonance not to recognize the onrush of severe ecological and economic problems." I would like to assure them that blindness does not prevent recognition of the mess that our planet is in; I am not in a position to speak to cognitive dissonance.

*Julie B. Lovins, AM'70, PhD'73  
Mountain View, California*

### Urban rainbows

The images in Amy Puma's article on Eric Fischer's (AB'95) work ("Points of Interest," May–June/11) do graphically what few in the media have done either graphically or verbally: they make older cities look good. Contrast the vivid reds, blues, greens, and golds in Chicago, Philadelphia, and New York with the washed-out monochrome paleness of their suburbs. Is there perhaps some deeper symbolism here?

And as a native New Yorker, I was pleased, though not surprised, to find the strongest colors (density) and richest mix thereof (diversity) of all five cit-

ies mapped in my hometown. Although the patterns show somewhat more segregation than one would like, the map still reminded me of former mayor David Dinkins's description of our city as a "gorgeous mosaic."

*John L. Gann Jr., AB'64  
Madison, Wisconsin*

### Civil War redux

I have enjoyed the letters about the causes of the Civil War greatly. Here is my view, which I expressed in a column in the *Chicago Daily Law Bulletin* ("How the US Constitution Caused the Civil War," April 13, 2011). The cause was three sections of the US Constitution. First, as is generally known, slaves were counted as "three-fifths of a person." This gave the slave-holding states a disproportionate influence in the US House of Representatives.

Few people have realized that this gave the slave states disproportionate power over federal finances and over election of the president. Because "all bills for raising revenue" must originate in the House, the slave states had a greater say over federal finances. The biggest federal finance issue was the imposition of tariffs on imported goods, which was a major, often the major, source of federal revenue in the 19th century. The North, where slavery had virtually ceased early on, supported tariffs, while the South opposed them.

Finally, the Electoral College elected the president and vice president, both then and now. Because the number of electors a state has varies by the number of US Representatives it has, the South also had disproportionate influence in the election of the president.

Even those Southerners who did not own slaves benefitted from this system. Why should the states where there were many slaves want to give up slavery or change the system?

*Ann M. Lousin, JD'68, Chicago*

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# Complexity, change, and educational challenges

PRESIDENT ROBERT J. ZIMMER

**T**he University of Chicago is faced every day with decisions about balance. The approaches of the past that have led to a history of remarkable achievement confront innovation driven by internal intellectual and educational urgency as well as a changing ambient environment. The resulting tension can be positive. The lessons and achievements of the past provide a potential context for innovation, while proposals for new endeavors may create great opportunity and lead us to test embedded assumptions.

There are also dangers within this tension. Without recognizing the enduring values of the University and ensuring they are embedded in new opportunities we pursue, we could move in directions that do not reinforce our fundamental missions and distinctiveness. On the other hand, too rigid an adherence to the specifics of the past can leave us with a paralyzing fear of major new undertakings and opportunities. Perhaps our single greatest danger is potential complacency—feeling too comfortable with our achievements without demanding of ourselves the ambition to find for the future innovative manifestations of the enduring values that have guided our past.

Within the past year, we have made significant progress on a number of new initiatives that have been driven by innovative faculty, which, aside from the merits and excitement of the projects themselves, exhibit two common features. They each represent a departure for the University, and in



**Robert J. Zimmer, who began his sixth year as president of the University of Chicago in July, leads off a new *Magazine* department in which University leaders discuss initiatives and issues of importance to the UChicago community.**

each case, the University is taking an approach that is distinctive from those of other institutions.

This year we appointed the inaugural Pritzker director of the new Institute for Molecular Engineering. Given that the University has not had a formal engineering program nor offered degrees in any type of engineering, this initiative is a major step in an area in which we believe we can make a distinctive and important contribution. The long-standing position of the University against having engineering was based on the difference between science as a study of natural phenom-

ena and engineering as the design and creation of man-made artifacts. However, with the evolution of technology the boundary between science and engineering has in many areas become blurred and even disappeared. One such powerful technological change is the ability to manipulate and design at the molecular scale. We expect that the Institute for Molecular Engineering will have deep connections to both physical and biological sciences and anticipate degree programs at both the undergraduate and graduate levels. It will offer a distinctive intellectual configuration for the area of molecular design. The immediate task for the director is to recruit a group of faculty leaders who will in turn define the specific directions of the institute.

The University took another major step this year in opening the new Center in Beijing, a new component in our approach to globalization. We have always been a University with an international perspective. About 30 percent of our faculty and 25 percent of our total student body are not US nationals. To support the work of our faculty and students in all fields who are interested in China and the extraordinary changes taking place there, as well as to enable multiple ongoing collaborations in China, a faculty committee recommended opening a major new center in Beijing. The first year of the center has been a great success and we expect the activity to continue to build over time. Here again, the approach we have taken in China is quite different from that of other universities.

Another arena in which we have embarked on a different and ambitious approach is that of pre-K–12 school education. This is an area that has profound human consequences and great meaning for our society as a whole. Several years ago, the University closed our Department of Education. This was not an easy decision, as the department represented a tradition that went back to John Dewey, who was recruited to the University by our first president, William Rainey Harper. In its place, however, a new, powerful, and distinctive approach to this subject has emerged at the University. This is embodied in our Urban Education Institute (UEI), which runs four charter school campuses on the South Side of Chicago, the Con-



sortium on Chicago School Research, and an Urban Teacher Education Program. Alongside UEI, the Committee on Education is a multidisciplinary academic unit that brings the power of the disciplines to bear on issues of pre-K–12 education. One goal of this effort is to produce understanding about scalable innovation in the charter schools and the creation of tools to help implement change at scale. This is an example of a decision to realize the faculty's ongoing commitment to understanding and impact in an im-

**Perhaps our single greatest danger is potential complacency—feeling too comfortable with our achievements without demanding of ourselves the ambition to find for the future innovative manifestations of the enduring values that have guided our past.**

portant field, but to do so in new and imaginative ways.

Finally, this spring saw the opening of the new Mansueto Library adjacent to Regenstein. While many other universities are only building off-site warehouses for certain library holdings, the Mansueto Library is a reflection of our commitment to continue to make materials readily available to those who need it for their research. At the same time, the structure of the Mansueto Library is a dramatic innovation in storage, matching its dramatic architectural design.

The tension between continuity and change will always be with us. It is our collective responsibility as a community to use this tension productively to ensure that our future is filled with new manifestations of the imagination and distinction that have represented the best of our past. ♦

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COMMUNITY

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## Culture wares

Theaster Gates hopes to transform a neighborhood through art.

It's as if he wants to get this part out of the way first: **Theaster Gates** knows that the South Side of Chicago has long been burdened with a bad reputation—and that the reputation is at least partially merited. “We know there’s violence, and we know there’s gang activity,” Gates says. “We know there’s not a strong economic core.”

What Gates most wants to talk about, however, is the potential that gets lost in the discussions of the

problems. “What we don’t consider enough is the rich cultural legacy,” Gates says, “the kind of cultural curiosity, the alternative histories. ... There is a deep intellectual reservoir that has never been fully tapped. And if it has, its voice has never been amplified loudly enough.”

Gates, a University resident artist, visual-arts lecturer, and director of arts-program development, has dedicated himself to amplifying that voice.

His Dorchester Project is the most ambitious example of his goal to find run-down spaces in struggling black neighborhoods and transform them through art and culture. Although the South Side's Grand Crossing neighborhood serves as the locus of his movement, Gates's art has been the subject of exhibitions in other cities, including St. Louis and Seattle. He has purchased property in St. Louis with the idea of transforming blighted spaces there, as well.

Gates, a West Side native who has arts, religion, and urban planning degrees from Iowa State University, has accumulated an eclectic body of work from pottery to music—his Black Monks of Mississippi ensemble includes musician Leroy Bach, formerly of the alt-rock band Wilco. The ongoing project in Grand Crossing, however, promises to be his magnum opus.

The Dorchester Project's centerpiece is a once-abandoned two-story house at 6916 South Dorchester. To create what he hopes will become a South Side cultural hub, where artists and other visitors can congregate both informally and for planned events, Gates went on a bargain spending spree. He purchased the property for \$16,000. Then he bought 8,000 vinyl albums from a Hyde Park record store,

Dr. Wax, which was closing. He added to the mix approximately 14,000 used books and thousands of photographic slides that the University of Chicago was planning to discard. Every item serves a double purpose—arrayed throughout the home, each one becomes part of the overall decor while also providing cultural material for artists and other visitors, a conversation piece unto itself.

The house is the first of many spaces on the block that Gates, who has also purchased two vacated foreclosures nearby, plans to transform. For stigmatized neighborhoods, he says, art can be the springboard to renaissance. "There's dignity everywhere," Gates says. "It's easy to overlook because the people who write about culture in the city live north. The people who have the capacity to create new cultural opportunities usually create them in a place that seems economically viable, where you can bank on a certain kind of person going to a certain kind of thing."

For Gates, who joined the University in 2007, his job is an opportunity to bridge the gap between the campus arts culture and the surrounding neighborhoods. He intends to connect the two even more, developing a role with the University under the working title, "Director of Arts and Public Life."

"I'm having this conversation with my friends at the University of Chicago," says Gates. "How can our students become more cultured? How do we get our students more embedded in the cultural life of the city? How do we ensure that our students have a voice and are engaged in the community? ... How do we make sure the community has access to the cultural life of the University? ... Is there a way I can help contribute to that?"

With his Dorchester Project, Gates is leading the discussion.—Jeff Carroll

## ANTHROPOLOGY

# Smart trains

Japan's claustrophobic commuter rail system operates with human and technological precision.

It's Monday-morning rush hour in Tokyo, and the city is hungry. Train stations devour people by the hundreds, swallowing them down escalators and onto platforms deep in their bowels. It's nearly impossible to reverse direction. Arms occasionally get broken.

A train glides into the station, its

## FIG. 1 DECISION TIME

The decisions consumers make depend partly on who they think they'll be in the future, says Chicago Booth marketing professor Oleg Urminsky. Those who believe they'll change significantly—and feel only distantly connected to their "future selves"—are more likely to make short-term choices. In a study in the June *Journal of Consumer Research*, Urminsky and Columbia University collaborator Daniel Bartels divided 18- to 29-year-old participants into two groups: one told that their young adulthoods would see big changes, the second that their identities were mostly set. Some participants had to select

### PATIENCE IN DECISION MAKING



a retailer for a gift certificate (fixed) right away, while others could choose later (flexible). To assess how connectedness affected the subjects' decisions, researchers then had them pick between a lesser-value certificate immediately

or wait a year for one worth more. Those who'd been told their current self wouldn't change showed more patience to wait for a larger reward, as shown above. The trend held whether the retailer choice was fixed or flexible.—LydiaLyle Gibson





Terminal officials pack more riders onto a Tokyo commuter train.

doors open, and the crowd parts as hundreds more flow out. On the intercom, a melodic ditty speeds up its cadence, urging commuters to board. When the music stops, the doors close.

Inside, people are packed so tightly it's hard to breathe. Cars designed to hold about 160 cram in 300 to 400. Faces are splayed against backs; elbows dig into torsos. People clutch smartphones and contort themselves to check e-mail. No one speaks; they're standing too close.

"It's an intimacy befitting lovers, not commuters," says Chicago anthropologist **Michael Fisch**, whose book project, *Between the Lines: An Anthropology of Love, Labor, and Death in Japan's Commuter Train Network*, investigates the relationship between Tokyo's people and its transit. Part of an emerging subfield called the anthropology of infrastructure, his research explores how the train system itself shapes—and reflects—the rhythms of a digital city.

Carrying some 20 million people a day, the Japan rail network appears dangerously overtaxed, the remnant of a post-World War II demographic shift that brought record numbers into the city. "It's a system that's operating beyond capacity, a system that shouldn't work," says Fisch, a Japan expert who spent months riding trains between 2004 and 2008.

Yet it does work—with a precision that would boggle Chicago El riders.

So accurate are the schedules, Fisch says, it's not uncommon for a rush-hour commuter to say she rides "the 7:43 a.m., third car, fourth door." For those who miss their train, another arrives in less than two minutes.

At the heart of the system is a balance between exactitude and uncertainty. With more than 12,000 trains running each day, arrivals and departures must be timed within seconds. Yet the crowds and the disturbingly regular rail suicides—an almost daily occurrence since the Japanese economy collapsed in the early 1990s—means unpredictability must be part of the transit equation.

To tackle these challenges, Tokyo's network uses a sophisticated model that breaks down the wall between man and machine, creating an environment where technology incorporates irregularity rather than trying to eliminate it, argues Fisch, an assistant professor of anthropology and social sciences. "There's no other system in the world that operates like this," he says of the Autonomous Decentralized Transport Operation Control System, implemented in 1996. Instead of one command station instructing trains to speed up or slow down, the network is partly decentralized, so the trains' computers can adjust if faced with the unexpected and refine an ever-changing traffic map.

"Basically, it's a smart network. The train itself makes decisions—and

learns from those decisions," says Fisch. Each decision gets dispersed to the rest of the network so the system can operate smoothly, even during the frenzied rush hour. That dynamic, Fisch argues, produces a "radically new kind of urban space" where the environment reacts to city dwellers as they move through it.

Tokyo's train infrastructure has altered everyday life in other ways as well. Consider, Fisch says, the packed train cars where no one speaks, but riders click away on smartphones, chatting online through "commuter networks."

"Their bodies are being transported in one kind of network, but they're surfing another one," he says. The modern story of technology has focused on the division between the technological and the human, Fisch says. "Everybody is really connected—and yet disconnected." Ultimately, he says, it's a reality "where you really can't make divisions between the human and the technological."

—Brooke E. O'Neill, *AM '04*

## MEDICINE

# Triple transplant

In a rare procedure, UChicago doctors give a patient a new heart, liver, and kidney.

Darryl Williams got winded while running a 10K race in Oak Park in 1995. It was puzzling because he was in excellent shape. Over the next five years he had irregular heartbeats and felt strange sensations in his chest. None of the treatments his doctors tried made a difference.

**Allen Anderson**, associate professor of medicine and director of the University's Advanced Heart Failure Program, met Williams in 2000, when the arrhythmia was becoming life threatening. Anderson diagnosed Williams with cardiac sarcoidosis, an inflammatory heart disease that affects about 18 people per 100,000 annually, and gave him new medication. "We were able to control it for ten years," Anderson says. "He did his part as well, by taking care of himself."



As his rehabilitation continues, Williams reports feeling close to 100 percent.

By 2010 the inflammation spread to his liver. Soon the ailing heart and liver put strain on his kidneys. Anderson decided that Williams's only hope was a new heart, liver, and kidney.

The criteria to be considered for a three-organ transplant are stringent. Williams's case was the subject of many meetings with hematologists, surgeons, nutritionists, psychiatrists, social workers, and infectious-disease specialists. "The fundamental question is: are you going to commit organs to this person?" says **John Renz**, professor of surgery and director of the University's Liver Transplant Program. "You have to look at all aspects of a patient. And you have to feel that you are committing that precious resource well."

Williams, 55, had no other health problems that would complicate his recovery. He had a history of following his doctors' instructions. And he had a large family and many friends to support him. After three months in the hospital waiting for the transplants, Williams was rolled into an operating room March 6.

**Valluvan Jeevanandam**, professor and chief of cardiac and thoracic surgery, compares multiorgan heart transplants to "walking a tight rope without a net under you. ... People don't do well after any open-heart surgery without

a good functioning liver. The liver has to filter out toxins and promote coagulation. Similarly, a new liver won't do well without a good heart."

Time is another pressure. Once harvested from the deceased donor, a heart is good for only about five hours. A liver can wait 18 hours, and a kidney can last for up to 48 hours. So the heart goes in first.

The heart transplant, performed by Jeevanandam, was over in about four hours, but the new organ was struggling. "We had to maintain his heart until he could get his liver," Jeevanandam says. The surgeons used inotropes to stimulate the heart and a balloon pump to keep oxygen flowing.

Then Renz's liver-transplant team took over. "When the new liver went in," Renz says, "the heart got better and better."

By the time it was **Yolanda Becker's** turn to bring in a kidney-transplant team, Williams had been in the operating room for almost 17 hours. Becker, professor of surgery and director of the Kidney and Pancreas Program, has done many multiple-organ transplants. Sometimes it's best, she says, for a heart-transplant patient to recover before attempting to put in a kidney.

But the donor kidney was aging, and the patient was limping along. None of his physicians wanted Williams to have

a new heart and liver without a new kidney. "I decided that we would not wait until the patient got stable," Becker says.

She and her team worked fast. The surgery usually takes three to four hours. In this case, a mere 36 minutes passed between the incision and the moment blood began flowing to the new kidney.

After more than 19 hours on the operating table, Williams became the tenth person in the United States—and the fourth at the Medical Center—to have a successful heart, liver, and kidney transplant.

Within a week, Williams said, he felt better than he had in years. By July he reported feeling about 90 percent recovered. His rehabilitation included doctor-recommended aerobic workouts on a treadmill and a recumbent bike, along with strength training that he did on his own.

Once a month he has blood drawn so Anderson, the heart-failure specialist, can make sure Williams's body is not rejecting the heart. After the one-year anniversary, he will require only annual checkups.

Anderson believes that Williams will have no limitations. He will be able to travel, exercise, and do the daily activities he wants to do. "There's a good chance," Anderson says, "that he will have a normal life."

—*Dianna Douglas*

## ARCHAEOLOGY

# Shards unseen

Archaeologist Hannah Chazin searches for late Bronze Age artifacts in Armenia.

At a five-by-ten-foot hillside trench in Armenia's Aragatsotn region, a crew of Armenian workers sings to Chicago anthropology doctoral student **Hannah Chazin**, AB'08. *Anna, Anna, Sirtun Anna*, "Anna, Anna, beautiful Anna," sings one man, recruited from the nearby village.

"I led a crew when I worked in the Western US, but that was different because they were all Americans my age and had a degree in anthropology or archaeology," Chazin tells me. "Most of these guys have years of field experi-

PHOTO BY SHAHZAD AHSAN/ UNIVERSITY OF CHICAGO MEDICAL CENTER



## CITATIONS

### PERKS OF EDUCATION

For undocumented immigrants, a US education would seem to promise college opportunities and job prospects for the future. However, children of illegal immigrants often end up working the same jobs as their parents, says **Roberto G. Gonzales**, AM '99, an assistant professor at the School of Social Service Administration. Gonzales recorded the life histories of 150 undocumented men and women in the Los Angeles metropolitan area and found that even those with college or graduate degrees—31 of the 150—were barred from pursuing their intended careers because of their immigration status. Instead, most of the 150 respondents wound up working construction, cleaning, and food-service jobs. Gonzales's study was published in the August *American Sociological Review*.

### FROM FINS TO FEET

In 2004 University of Chicago evolutionary biologist **Neil Shubin** discovered an ancient transitional species between fish and land animals called *Tiktaalik roseae*. That discovery led him to wonder when animals first developed the

genetic ability to grow limbs. With organismal biology postdoc **Igor Schneider**, Shubin analyzed a human gene switch—a DNA sequence controlling gene expression—that regulates limb development. The researchers found the same switch in several other species whose last common ancestor predates *Tiktaalik*: mice, chickens, frogs, zebrafish, and skates. To see if the genes functioned the same way, Schneider swapped the gene sequence from a fish embryo into a mouse's. The primitive fish DNA activated gene expression in the mouse, producing signs of a developing paw. This finding suggests that the components of limb development existed for hundreds of millions of years before four-legged creatures evolved. The results, which Shubin says open “a whole universe of questions,” were published online July 15 in the *Proceedings of the National Academy of Sciences*.

### OLD GLORY AND THE GOP

The American flag is considered a symbol of national unity—we think that red, white, and blue are nonpartisan. Not so, says **Travis Carter**, AB '01, a postdoc and manager at



Flag poll? Republicans win.

Chicago's Decision Research Lab. He found that exposure to the American flag increases the chance that a citizen will vote Republican. In a study of nearly 200 undergraduates from strongly conservative or liberal states, participants filled out questionnaires about their political views and voting intentions. Half of the questionnaires had a small American flag in the survey's upper left corner. Carter conducted his experiment a few weeks before the 2008 presidential election and, following up afterward,

found that “flag-primed” participants had shifted their voting intentions and political attitudes to the right. Carter repeated the experiment with a different group of voters in spring 2010, when President Obama and the Democrats controlled the government, and found the same bias toward Republicans.

### STRESSFUL DRINK

Reaching for a pint after a difficult day may not relieve stress—in fact, it may prolong it. In a study published in the October *Alcoholism: Clinical and Experimental Research*, Medical Center research associate **Emma Childs** reports that alcohol can agitate stress. In her experiment, 25 healthy men engaged in a public-speaking task. Afterward half were given the equivalent of two drinks, followed by a placebo 30 minutes later. Another group received the placebo first, then the alcohol. Measuring heart rate, blood pressure, and cortisol—a stress hormone—Childs found that stress can lower alcohol's power to intoxicate, as well as reduce its pleasant effects, causing the drinker to want more.

—*Mitchell Kohles, '12, and Christina Pillsbury, '13*

ence—one was even sent to study in the capital, but he had to go home to take care of his family before he could complete his degree.” Most of them are not used to having a woman chief.

Chazin talks with the workers in Russian, which she studied for two years at Chicago, but she's learning Armenian words as well. She reminds the workers to dig carefully with their shovels, excavating level by level, layer by layer, working around stones rather than dislodging them, so as not to upset the strata or miss a piece of pottery. She already has a gallon Ziploc bag full of shards, some showing intricate patterns carved by potters who lived more than 30 centuries ago.

Chazin's adviser, Cornell archaeologist Adam T. Smith, who taught

at Chicago through early 2011, arrives to examine the day's finds. The American codirector of the Project ArAGATS expedition Chazin is working on, Smith has worked in Armenia since 1992, just after the fall of the Soviet Union, and has surveyed the entire region. He even knows the small village where I work as an English teacher in the Peace Corps, a town most Armenians have never heard of. From the shards of pottery a few inches wide in Chazin's bag, he can conjure an entire vessel, a water jug, a formal bowl, or a grain container. “Look,” he points out. “This is the handle.”

I take a shovel and begin scraping dirt. A glint catches my eye. It's a flake of obsidian, volcanic glass used around the world since Paleolithic times. An-

cient cultures discovered that obsidian could be chipped into sharp knives, arrowheads, and other bladed tools.

Even after centuries underneath dirt and rock, the glass retains its cool, smooth sharpness. Chazin points to a rounded bump in the center. “This is the bulb of percussion,” she says. “It's formed when obsidian is hit with another stone to form a blade, a process called knapping. It indicates that this was definitely a flake from a tool, worked on by humans.” The piece, less than an inch long, goes into another bag of tiny tool shards.

It's hard to dig a hole in Armenia without hitting the remnants of an ancient civilization. Armenia was a vassal state of the Persians, the Romans, the Byzantines, the Ottomans, the



Chazin digs her work excavating historic sites in Armenia.

Russians, and later the Soviets. Christianity arrived, Armenians believe, with the missions of the apostles Bartholomew and Thaddeus, and Armenia became the world's first officially Christian state in 301 AD.

Armenians are immensely proud to have maintained their religion through centuries of dominance by pagan, Islamic, and communist powers. The Armenian alphabet was created in 406 AD to translate the Bible into the local language, and the country's landscape is dotted with ancient churches and monasteries.

Chazin is looking for even earlier civilizations. "Anything with Arme-

nian written on it is too new for me," she says. Project ArAGATS, named for the highest mountain in the present-day Republic of Armenia, has explored sites from the early Bronze Age through the Medieval period, but today Chazin searches for artifacts from the late Bronze Age, between 1500 and 1150 BC, when the grassy hilltop we're sitting on was a stone citadel. In 2003 excavations uncovered a well-preserved late Bronze Age shrine.

Not all digs are successful. Last summer four trenches were excavated. Three yielded architectural structures, along with large ceramic pots, but Chazin's turned out to be a garbage

dump. "That was interesting," Chazin says, "but I'm hoping to find something better this year. We're looking for the gateway to the complex—and perhaps another shrine."

—Samuel Dolgin-Gardner, AB'09

## ECONOMICS

# On the up and up

Economist Bruce Meyer studies the myth of the middle-class squeeze.

There's a resounding drumbeat from economic doomsayers in America, an overture played by pundits and politicians: the poor are getting poorer. The middle class is shrinking. The economy is worse for families than ever before.

But the pulse of the American economy sounds different to **Bruce Meyer**, a McCormick Foundation professor at the Harris School of Public Policy Studies. In a paper to be published by the American Enterprise Institute, Meyer finds "considerable improvement" in the material well-being of middle-class families over the past three decades. Median income and consumption both rose by more than 50 percent between 1980 and 2009. "The middle class is much better off than they were ten years ago, much better off than they were 30 years ago," he says. "That's a message that you don't always hear."

The Chicago economist has been studying how the United States measures poverty and material well-being since the early 1980s, when he was a graduate student at MIT. One problem, he says, stems from where the nation gets its data. Middle-class well-being numbers, for instance, come from income reported in the Current Population Survey, which the government uses to calculate official unemployment, poverty, and other policy reports.

That survey, Meyer explains, ignores tax credits, savings, and government benefit programs such as food stamps and housing assistance that act like income, all of which contribute to higher standards of living (the study



also investigates the poor's improved well-being). Other inaccuracies include under-reported income and incorrect inflation estimates.

Readjusting inflation alone, Meyer's calculations, done with coauthor James Sullivan from the University of Notre Dame, show that the average median income rose by 46 percent between 1980 and 2009, compared to the 17 percent increase that the government previously reported. "If we're getting bad data, we're going to make bad decisions," Meyer says. "We're going to spend money inefficiently, we're going to spend money on the wrong people"—those who don't need it—"and we're going to think that some government programs aren't reaching as many people as they are."

When the researchers looked at consumption, particularly middle-class housing and automobile expenditures, a similar narrative emerged. Today middle-class homes are bigger by nearly 300 square feet than they were in 1989. The prevalence of air-conditioning, dishwashers, and clothes dryers rose as well, while expensive problems such as plumbing and roof leaks declined sharply.

Car ownership and quality spiked too, Meyer found. The fraction of middle-class families with more than one car rose by 4.4 percentage points between 1999 and 2009, to 37 percent. Those second and third cars were

more likely to have extra features such as power brakes, power steering, and sunroofs; most noticeably, the fraction of cars with air-conditioning rose more than 35 percentage points between 1981 and 2004. More of those features are now standard, Meyer says, "but that's the point. It reflects that what people expect and what your money can buy has changed a lot. It's not that those features don't have value; it's that everybody is benefiting from improvements in the quality of cars and quality of life in general."

Meyer often fields questions about credit-based consumption. His answer: it all evens out. "If people are overspending their means, then eventually they're going to underspend when they pay back debts or when they can no longer borrow."

Given the current recession, he understands why many people don't see the bigger picture. But step back, he says, and those small peaks and troughs of a struggling economy meld together. A single line ascends. It's a middle-class moving, as it has always been, up.

"We should be doing less hand wringing about the country falling apart," Meyer says. "We should always be worried about our kids, but it doesn't look like we're going to leave them declining or worse living standards. We may leave them other problems, but this doesn't look like it's one of them."—*Steven Yaccino*

## WILLIAM RAINEY HARPER'S INDEX

### STUDENT E-MAIL LIST MEMBERS

UChicago Solar  
Car Team

58

Go at UChicago  
(a Chinese board game)

69

Federalist Society

114

Zombie Readiness  
Task Force

176

Secular Students  
Alliance

215

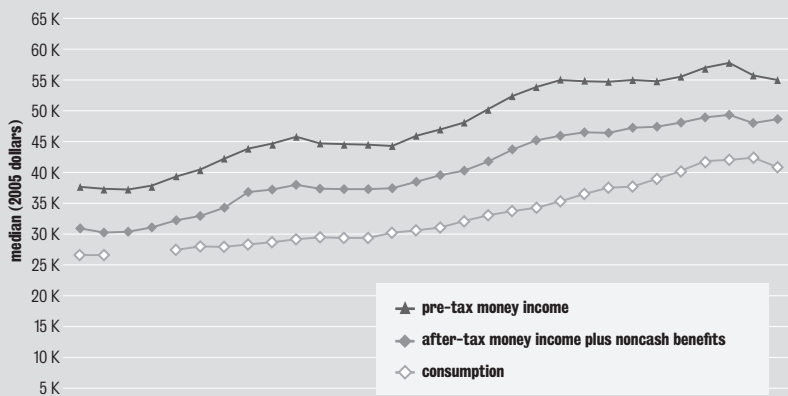
Objectivist Club

228

Intervarsity Christian  
Fellowship

266

Median Income and Consumption, 1980–2009



Measured by consumption or income, the material well-being of the middle class has improved. (Meyer's calculations using Consumer Expenditure Survey [consumption] and Current Population Survey [income].)

## FOR THE RECORD



### WEALTH OF NOTIONS

In June the Milton Friedman Institute for Research in Economics and the Becker Center on Chicago Price Theory merged to create the Becker Friedman Institute for Research in Economics. Nobel laureate **Gary Becker**, AM'53, PhD'55, is the institute's chair, and **Lars Peter Hansen**, the David Rockefeller distinguished service professor in economics and statistics, is its research director.

### A TREASURY OF EXPERIENCE

**Henry M. Paulson Jr.** began a five-year position as a distinguished senior fellow at the Harris School of Public Policy Studies on July 1. Paulson, former CEO of Goldman Sachs and a treasury secretary under President George W. Bush, will arrange research collaborations, speaker series, conferences, and workshops. He also plans to open the independent Paulson Institute, located on campus, to focus on strengthening US-China relations.

### CAPITAL HAUL

In the past year, 11 companies started by Chicago Booth School of Business students have attracted more than \$85 million in venture capital. Forty percent—or \$34 million—went to Braintree, founded by **Bryan Johnson**, MBA'07, which helps companies process credit-card payments. Online food-delivery service GrubHub and Bump Technologies, which

developed the Bump iPhone app, also received funding.

### GRANT IS A CATALYST

**Jared Lewis**, assistant professor in chemistry, received a \$300,000 Searle grant to support his research over the next three years. One of 15 Searle Scholars selected from among 180 applicants representing 126 universities and research institutions, Lewis will explore new catalyst systems for efficient chemical synthesis.

### EATING GLOBALLY

After a year of deliberation, the University has introduced new on-campus dining options. The Global Dining Initiative, a committee of students, staff, and faculty members, called for more flexibility and variety. New features include extended hours in dining venues and five separate plans ranging from unlimited meals to as few as ten meals per week. Aramark will remain the campus food service provider.



### URBAN DEVELOPMENTS

The University has purchased the former Borders store at 1539 East 53rd Street. The bookstore closed in March, and the University is pursuing retail, home goods, entertainment, or restaurant tenants. The acquisition is part of a University-led retail revitalization in Hyde Park. Also part of the project is a Five Guys burger joint, which opens September 19; a Clarke's 24-hour diner; a Whole Foods

supermarket; a four-screen movie theater; and a hotel.



### DAWSON DIRECTS RACE CENTER

**Michael Dawson**, the John D. MacArthur distinguished service professor in political science and the College, has begun a three-year term as director of the Center for the Study of Race, Politics, and Culture. Dawson's research has focused on the development of quantitative models of African American political behavior, identity, and public opinion.

### SHER RETURNS TO MED CENTER

After two years as a White House adviser, **Susan S. Sher** returned to the University of Chicago Medical Center August 1, as executive vice president for corporate strategy and public affairs. In that role, Sher works with University President Robert J. Zimmer on national health-care issues and on corporate partnerships, coordinates external-relations initiatives, and develops corporate-relations strategy.

### HAIL PHILOSOPHICAL FELLOWS

**R. Stephen Berry**, the James Franck distinguished service professor emeritus in chemistry, and **Olufunmilayo Olopade**, director of the Center for Clinical Cancer Genetics, were elected fellows of the American Philosophical Society. Trustee Emeritus **Richard J. Franke**, chair and CEO emeritus of the Nuveen

Investments and a 1997 National Humanities Medal recipient, also was named a fellow.

### WANTED: MOLECULAR ENGINEERS

Four named professorships have been created for the Institute for Molecular Engineering. Two separate anonymous gifts provided funding to establish the professorships for the institute, a partnership with Argonne National Laboratory, which will recruit 24 faculty members over the next five to eight years.

### TOMORROW'S PAYMENTS TODAY

Two fourth-year Pritzker students, **Laura Blinkhorn** and **Maggie Moore**, received the American Medical Association's 2011 Physicians of Tomorrow Scholarships, which repays the recipients' medical-school loans.



### PRITZKER'S A CHARTER MEMBER

Philanthropist and civic leader **Margot Pritzker**, AM'01, became chair of the University of Chicago Charter School's governing board on July 1. Pritzker, who has served as one of the 17 board members since July 2007, will lead the oversight of the school's four South Side campuses. Faculty and administrators from the University and the Urban Education Institute, parents from each of the four charter school campuses, and community leaders make up the board.



Schiller's current collection at his Highland Park, Illinois, home includes about 250 American surrealist works.

## ARTS

# Art house

Philip Schiller, AB'55, built one of the country's most comprehensive collections.

"There's no reason in my background for me to be interested in art," says **Philip Schiller**, U-High'52, AB'55. "No one in my family collected." He had enough curiosity to take art-appreciation courses in the College, and later his wife, Suzanne, "would grab me to go to the Art Institute," but that was it.

Yet at 75, Schiller, a real-estate attorney and investor, has sold a major collection to a museum, and he's now amassing a second collection at his home in Highland Park, Illinois, near Lake Michigan. In the house, designed by architect Howard Van Doren Shaw, framed art covers every wall: colorful and sometimes foreboding paintings in

the kitchen and up the staircase, black-and-white prints in the den, and large canvasses in the open gallery space he and Suzanne added in back as their collection grew.

The Schillers cultivated their first collection for 35 years, focusing it in both style, which he calls American social commentary, and period, between 1930 and 1970. It captured the century's social upheaval, including the Great Depression, World War II, McCarthyism, the civil-rights movement, and the Vietnam War. From 1995 to 1998, five dozen of their works toured the country in an American Federation of Arts exhibition, *In the Eye of the Storm: An Art of Conscience, 1930-1970*.

In 2005 the Schillers sold around 400 pieces, valued at an estimated \$7 million, to the Columbus Museum of Art. The works included Ben Shahn's 1956 painting *Study for Goyescas*, in which a man who is part military and part religious leader simultaneously clasps his hands and plays cat's cradle over a pile of corpses; Jacob Lawrence's 1937 *Inte-*

*rior Scene*, depicting a Harlem brothel with white johns; and a companion piece, *Street Scene—Restaurant*, which shows black prostitutes and a nervous-looking white man approaching. After the collection's sale was announced, Virginia Mecklenburg, senior curator of the Smithsonian American Art Museum, told the *Columbus Dispatch* that the Schillers' was "one of the most focused and comprehensive private collections in the country."

At first he bought by instinct. For Schiller's 40th birthday in 1976, he and Suzanne went to New York to survey the art scene. He had already purchased one major piece, a Reginald Marsh ink drawing of a young woman walking down a street, which tipped his interest in art about urban life. Schiller's friend Dino D'Angelo, AB'42, JD'44, a collector himself, had introduced Schiller to Marsh's work.

On D'Angelo's advice, he and Suzanne visited a handful of dealers and galleries. They fell in love with Robert Gwathmey's 1963 oil painting *Cus-*



*todian*. In it a man and a woman sit in the foreground beside a rusted-out car and a scarecrow holding a watermelon. The rest of the painting is a deep yellow, suggesting the brutal heat of a Southern summer. The Schillers paid \$15,000 for it, in installments.

"I now know the market much better than I did then," Schiller writes in his 1999 book *Buy What You Love: Confessions of an Art Addict*, "and there is no question that we overpaid for *Custodian*." Still, he's glad they did. "Even today when I look at it and am hit by the heat of that punishing sun," he writes, "I know that buying it was exactly the right thing to do." Schiller's aesthetic instincts eventually proved financially sound. Since Gwathmey's 1988 death, his paintings' values have risen; *Custodian* was included in the Columbus museum sale.

Soon Schiller became a regular at New York galleries and eventually at auctions. He hung the works he bought, either in Highland Park or at his Florida winter home. "I knew I was onto something," he says, when art historians or curators would come for a short visit and stay for hours.

Although many of his purchases became good investments, he advises collectors to buy art they love, pieces they will want to look at every day. If you're in it for the money, he writes, "Give it up. Your chances are so small it's not worth trying." In fact, "the rule of thumb, at least with contemporary art, is that 99 percent of what you buy will be worth less than what you paid."

As his own collection narrowed in style and period, he began to feel it "could be of importance," Schiller says. He wanted to keep the works together so they "could be understood as a whole." The Columbus Museum of Art bought the collection, adding to its contemporary holdings. Now the Schillers visit their former paintings a few times a year. More often they look at them in their art books.

Today their home is filled with art again, this time 20th-century American surrealism. They have around 250 pieces, Schiller says, "the makings of a very interesting collection" and one "not as restricted" in period or subject matter. Although he doesn't yet know what will happen to these works, he enjoys looking at them every day.

—Amy Braverman Puma



A boat delivers mosquito nets in the remote Lake Tanganyika region.

## MEDICINE

# Healing vessel

Amy Lehman envisions treating patients from isolated African villages aboard a hospital boat.

**Amy Lehman** was at a district hospital in Tanzania when a pregnant 16-year-old walked in, bleeding. Her undelivered baby was already dead. The girl had had an obstructed labor in Kala, a tiny village bordering Lake Tanganyika. "She was trying to deliver, and the baby [got] stuck," Lehman says. She had walked and ridden buses for three days, hemorrhaging, trying to reach the hospital to have a Cesarean section.

By the time she made it there, "it would have been hard to save this woman's life if she had been at the University of Chicago medical intensive care unit." Without blood available for a transfusion, she died.

In the future, Lehman, AB'96, MD'05, MBA'05, imagines telling a very different story: the girl goes to the local medical dispensary, who calls a hospital boat on the lake. "Then we can pick up the woman or girl in obstructed labor on an outboard motor boat," she says, "and bring her back and do a C-section, and the baby lives and she lives."

In 2008 Lehman and Tanzanian-born Alwyn Andrew-Mziray, AB'94, MD'00, IMB'00 (who died unex-

pectedly in February), cofounded the Lake Tanganyika Floating Health Clinic, a nongovernmental organization that hopes to provide medical care to the millions of geographically isolated people of Lake Tanganyika, the world's longest freshwater lake—people from Burundi, Democratic Republic of the Congo (DRC), Tanzania, and Zambia.

The boat has not yet been built—the clinic first must raise \$6 million for construction. But when finished, it will be a floating regional hospital, staffed by a crew of 30–35 doctors, nurses, and ship staff. The region's understaffed and undersupplied health centers and medical-supply dispensaries will refer patients to the clinic, which could either pick people up on motor boats, "like a water ambulance," or airlift them using a helicopter, which could land on the 200-foot-long boat. The organization also plans to help ramp up the first-line health centers, providing the medical supplies and manpower to deliver primary care and prevention services.

Creating a mobile hospital makes sense for several reasons, says Lehman, who first saw the dire state of the basin's medical care while visiting the lake in 2007. First, given the region's ongoing conflicts, hospitals "have been overrun by rebel armies, and all their assets have been taken." Second, the lake is the best way to reach lakeside villages. "Anybody who's worked with lake communities," Lehman says, knows that boats are "culturally integral. It's not only

PHOTO BY JOEL FRUSHONE

that it solves true logistics problems in terms of how you reach populations; it's that populations recognize this as how they do things."

Lehman travels to Africa every few months to do medical outreach for the lakeside communities. To get to the southern Congo side, she takes three flights—Chicago to London; London to Johannesburg, South Africa; and Johannesburg to Lubumbashi, DRC. She then either drives for two-and-a-half days to the lake, gets a mining company to take her in a charter, or hops on a six-to-12-seat humanitarian flight. No matter where in the basin she's trying to go, it's several days of travel from Chicago.

Lehman never imagined she'd be working with African ministries of health, learning Swahili, and building a ship in eastern Africa. "Years ago, what I was planning on becoming was an academic general thoracic surgeon," Lehman says, not "thinking about naval architecture and engineering, or how to build a ship in the middle of a landlocked lake in sub-Saharan Africa."

As she raises the money to build, Lehman is helping the villages in other ways: providing mosquito nets to prevent malaria, still the top cause of death in the region (its grip has lessened in much of sub-Saharan Africa), training local community health workers, and planning to offer surgery to repair fistulas, prenatal care in the Congo and Tanzania, and treatment for eye diseases in Burundi. She's made deep connections in the villages—one local even named her baby son "Dr. Amy Lehman."

Lehman's main goal is to reach more villages, helping as many people in the basin as her crew can. With her team, which includes the vessel consultant **Brian Bartlett**, MBA'09, as well as stateside fundraisers and African coordinators and consultants, Lehman has been focused on fundraising for the outreach projects. This fall she will launch a capital campaign to raise money for the ship. "If somebody plunked down [the \$6 million] today"—not including an ideal endowment of \$25–\$30 million—"we could have the boat built in probably a year and a half, max," says Lehman, who lives with her son, Max, a Lab Schools senior, in Chicago's Bucktown neighborhood.

"Everything is planned out," Leh-

man says. The clinic has local partners, and Lehman and her crew know where to get the raw materials. To design the ship, they've hired Alion Science and Technology, which does business with the Department of Defense, and they will use a Tanzanian shipbuilding organization. "We know everything about all this stuff," says Lehman, "so it's [just about] pulling a trigger."—*Ruth E. Kott, AM'07*

#### CAMPUS LIFE

## Booth school

Volunteer projectionists at Doc Films try to keep an old technology from flickering out.

I remember watching *Fight Club* as a 16-year-old and thinking I understood how movies made it onto the big screen. But it wasn't until volunteering at Doc Films as a College first-year that I learned projection involves more than watching the corner of the screen for "cigarette burns."

After three years in the booth, you develop a checklist for prepping a film print: transferring the film onto show

reels, rewinding the film, checking and repairing splices, and adding your own if necessary, noting the scenes where dots (those cigarette burns) appear to mark the end of the reel, determining the print's proper sound format and aspect ratio. In *Fight Club*, Brad Pitt's character makes prep work more exciting by splicing in single frames of pornography.

For 35 mm film—the most common size today—Doc uses a changeover system with two projectors, called Evelyn and Wanda for their east/west positions. When the show starts, the film runs through Evelyn until the reel is almost empty—about 20 minutes. Eight seconds before the reel's end, the dots appear in the screen's upper right-hand corner for an eighth of a second—four frames—and I turn on Wanda's motor and raise the douser to let the light flood into the chamber. In the print's final second, as the second reel is running through Wanda, a second dot appears, and I step on the changeover pedal to project Wanda's image instead of Evelyn's, which is now just black filler, the reel's tail. If everything goes well, the audience doesn't notice.

Of course, Doc regulars know that screenings don't always run so smoothly. Projectionists have nightmares about the bubbling, deep-colored metastasis on screen that signals a burning print



As movies go digital and original prints become rare, the Doc Films tradition of analog projection with student volunteers could be in jeopardy.

inside the projector—the xenon lamp will torch a frame left stationary for even half a second. Fortunately, few of our mistakes have such inflammatory results. If a film breaks below the sound chamber, the outgoing film spills onto the floor in huge ribbons while the projector continues to show the movie on screen. To recover, a projectionist must find the broken end, reattach it to a new take-up reel, replace the original reel with the new one, guide the spilled film back onto this new reel, and allow the stronger tension of the take-up motor to catch up to the film still running through the projector. Unless the print is particularly rare or fragile, we can fix the spill without stopping the show or alerting the audience.

A projectionist's skills are hard to come by these days. In the 1970s theaters adopted a less labor-intensive reel system that used platters to bypass the changeover process. Most multiplexes now use platters: all the film is wound onto one giant reel and fed through the cinema so that the same print runs

through several projectors and appears on multiple screens. A multiplex can handle 12 or more screenings a night with one projectionist.

At Doc the process is less efficient, but it's easier on the film. Using the changeover system, we can screen archival films that require careful handling. **Kyle Westphal**, AB'07, former Doc programming chair and head projectionist at the George Eastman House in Rochester, New York, explained the benefits in a San Francisco Film Festival interview: "It forces the projectionist to actually be there during the screening and maintain the integrity of the print by not cutting and resplicing it at the heads and tails of every reel."

Yet as distribution goes digital and film repositories become more selective about lending, Doc's commitment to showing original prints on analog equipment has become increasingly difficult and expensive. In May 2010 Doc volunteers and board members gathered to discuss how to address the changes. Some proposed establishing an office-

manager position to maintain relations with distributors and handle Doc's finances. Others proposed hiring full-time projectionists, cutting the volunteer staff nearly in half.

**Becca Hall**, AB'10, a former Doc volunteer and cofounder of the Northwest Chicago Film Society, attended the meeting: "Basically, Doc presently operates as if it's still the 16 mm era," she says, "when films were available to anyone and striking new prints was easy—and when the equipment used was simple enough for a schoolteacher to use and maintain. All this puts the possibility of Doc continuing to exist as we've known it in serious jeopardy."

It will be up to future volunteers to decide the fate of film on campus. As part of the University community for more than 75 years, Doc claims the title of longest continually running student film society in the country. As I watch a new group of volunteers thread the 35 mm film into the projector, I hope we don't give that up.—*Mitchell Kohles*, '12

## ORIGINAL SOURCE FIGHTING FAIR

From 1934 to 1955, the University of Chicago radio program *Round Table* provided a forum for genteel political discourse. Broadcast live from Mitchell Tower and syndicated nationwide on NBC radio, the weekly program embraced provocative topics—atomic warfare, McCarthyism, civil rights. Yet whether guests were University faculty, politicians, or public figures, cordiality prevailed. "In one way *Round Table* is the forerunner of Sunday morning TV talk shows," says assistant professor of history Neil Verma, AM'04, PhD'08, "but in another way, it's an anomaly: an intellectual program in an anti-intellectual nation; a consensus-based show in a medium known for acrimony."

Reading program transcripts housed in the Regenstein Library, Verma, author of *Theater of the Mind: Imagination, Aesthetics and American Radio Drama* (University



of Chicago Press, forthcoming), was struck by the dearth of "gotcha" moments. Instead of a face-off between two speakers, the show gathered three guests around an omnidirectional microphone to consider issues from multiple dimensions: "This was a deliberate production decision to create an acoustic environment in which no one person is louder than another."

In a 1953 broadcast, for example, John Kenneth Galbraith cheerfully sparred with Milton Friedman, AM'33. Although their differences were clear, the economists tried to drive toward consensus, concluding, "We are agreed that [capitalism] has shown a great advance in the economic well-being of the people of America."

—*Elizabeth Station*



# Coffee science

Cell biologist Stephanie Levi's Night Labs series makes science accessible.

*Molecular geneticist and cell biologist Stephanie Levi, PhD'09, wants people to understand what she does. To explain the Golgi apparatus, which she studied at Chicago, she uses a simile: it's "a structure in the cell that is like the cell's post office," she says on her website, Science-is-Sexy.com. "The Golgi takes newly made proteins (the mail) and attaches a sugar molecule to them, which acts like a molecular zip code that tells the cell where to send the protein."*

*She doesn't stop at similes. To bring science to a wider population, in 2008 Levi, who coordinates Northeastern Illinois University's Student Center for Science Engagement, started Night Labs, a series of public talks about how science fits into everyday life. "Science intersects everything," she says. After leading lectures on the science of sex and attraction and on the science of extinction, in June she hosted a Night Lab on the science of coffee. The talk, led by Chicago-based Intelligentsia's green manager and buyer, Sarah Kluth, filled the second floor at Schubas Tavern in Chicago's Lakeview neighborhood. Afterward Levi gave an interview about what science can teach us about coffee.*

—Ruth E. Kott, AM'07

## Why do a Night Lab on coffee?

Night Lab is all about helping adults access science in an entertaining, enjoyable way, while highlighting science in their everyday lives. I have long been interested in doing programs on food, since in addition to being a molecular geneticist, I'm a huge foodie who takes full advantage of Chicago's rich food culture.

I don't know of anything more ubiquitous than a morning cup of joe, and I fell in love with Intelligentsia the first time I took a sip of a cappuccino from one of their retail stores. There's tons of science involved in every step of the processing, brewing, and enjoyment of coffee, and I chose to high-



light those. I will be having numerous food programs in the coming years, although this was my first.

## How do you make coffee at home?

I have always used one of those Italian stove-top coffeemakers—you put water in the bottom, coffee in a metal filter right above that, and put it on the stove, and it percolates to a chamber in the top, which you then pour into your cup. I also have a French press and use that mainly at work. I'm switching to an automatic coffeemaker, however, which, I learned from Sarah, gives the coffee preparer—me—less control.

## What did you learn from Kluth's talk? Will it change the way you make coffee?

After the Night Lab event, I'm switching to one of those gold filters instead of paper—the molecules that give coffee its aroma and complexity can stick to a paper filter. I now want to go out and get a burr grinder as well; it provides a uni-

form grind to the coffee beans, unlike an electric grinder, and I learned from Sarah that you really want a uniform grind to your coffee so that the surface area of each grain of coffee is even, and the extraction of coffee into your water is even, giving a good-tasting cup.

I also use purified water, not distilled or tap. Distilled has no minerals to attach to the molecules that give coffee a great flavor, so you wind up with a really weak-tasting, flat cup of coffee if you use it. Tap is loaded with chlorine, which gives you an off-tasting cup. Ideally, the temperature of coffee needs to be pretty precise too—Sarah shared with us that the ideal range of extracting a cup of coffee is about 195–205 degrees Fahrenheit.

[Finally] I will never, ever put coffee in the fridge as a way of keeping it. I will try to use my coffee within two weeks of buying it. Sarah gave guests of the Night Lab program a half pound of coffee, and it had been roasted two days prior.

# Amid a gathering storm, students grapple with 1960s turbulence

BY CARRIE GOLUS, AB'91, AM'93

**C**an we talk a little louder, guys?" associate professor of history **Amy Dru Stanley** urges her students in the course *The 1960s: Politics, Counter Culture, and Social Protest*. "I feel like I'm going deaf."

The miniblinds rattling in the wind are not helping. Social Science 401 has no air conditioning, just casement windows propped open by stays. The air this July morning is oppressively hot and humid; a thunderstorm seems inevitable.

The class is small but diverse. There's a high-school student from Texas and one from Korea; a Chilean student who begins studies at Chicago Booth in the fall; and two kinds of seniors: rising fourth-years and those who will graduate this summer. All of them were born after 1975, when the Vietnam War ended.

The discussion begins with the course's first fictional text, Tim O'Brien's *The Things They Carried* (1990), a collection of stories about Vietnam. "Historians would use this warily," Stanley says. "It's so evocative, but it's ex post facto." The students dissect the title story. Its protagonist, Lieutenant Jimmy Cross, blames himself for the death of soldier Ted Lavender.

"Most wars are about gaining territory," Stanley says. "What is so unprecedented here? How is victory being counted?"

Elizabeth, a rising fourth-year, says softly, "Kill ratio." On the board, Stanley writes "kill ratio"—the number of Vietcong killed compared to US soldiers killed. Then she writes

"\$400,000"—the cost, in 1960s dollars, of killing one Vietcong soldier. She says, "An incredibly chilling thing."

She turns to face the class. "Any of you boys—you or you or you," Stanley says, pointing to the male students one by one, "could have been Lavender. Or Lieutenant Cross. Did any of you think, that could be I?" The men seem taken aback by the question. Finally Sanders, a third-year history major, says no. The others remain silent.

Next on the day's reading list is an excerpt from Lyndon Johnson's 1965 speech defending US involvement in Vietnam. Stanley points to the word "promise," which occurs again and again: "We are there because we have a promise to keep." Emil, a fourth-year soon to graduate, is struck by Johnson's emotive language. He reads aloud: "To abandon this small and brave nation to its enemies ... would be an unforgivable wrong."

Stanley turns to Michelle, the Korean high-school student, to ask how the Vietnam War is taught in her country. "I go to an international school," says

Michelle. "The curriculum is the same as an American school."

"An international school curriculum is the same as an American school?" Sanders asks, incredulous. Michelle nods: "I'm not sure how much the Vietnam War is taught in public schools," she says. "I wish I knew more about the Korean War." The younger generation, Michelle adds, doesn't talk much about it.

At the end of the discussion, Stanley asks Elizabeth to turn off the lights. A giant screen lowers from the ceiling. A young Muhammad Ali appears on YouTube, delivering his famous statement against the Vietnam draft: "They [the Vietcong] never called me n—r."

The wind has picked up outside. Just as Elizabeth stands to close a window, it slams shut. In the next YouTube clip, Martin Luther King Jr. explains in his booming preacher's cadence why he opposes "this tragic war." Outside, the trees blow violently but without sound.

The class takes a ten-minute break. Then it's on to the 1968 protests at Columbia University, where angry students held sit-ins at campus buildings. Philippe, the Chilean student, has prepared a few discussion questions, a required part of each student's participation grade. The authors of *Columbia Liberated*, the statement of the Columbia Strike Coordinating Committee, claimed to be fighting for their freedom, Philippe says, "but for me they were already free. Why did they feel like they were not free?"

The students struggle to answer. "I would agree that they're already free," says Elizabeth, but they were upset about "the psychological distance between themselves and their parents or the government. They felt that they just weren't a part of the system."

"But at the same time they were," says Sanders. "A big part."

"I have a difficult time seeing what they're complaining about," says Imani, the Texas high-school student.

Stanley stops to clarify the geography of Manhattan: "Harlem sits right on top of Columbia," she says. Tensions flared when the university proposed building a new gym in Morningside Park that "would displace a primarily black population," while only part of the gym would be open to the community. "It's about who has access to urban space," says



**Any of you boys could have been Lavender or Lieutenant Cross.**



Bob Dylan, on the set of his 1965 film for “Subterranean Homesick Blues,” provides a lesson in social protest.

Stanley. “Who controls it?”

“What was the phrase,” Philippe says. “‘It’s the issue, but it’s not the issue.’”

“Mark Rudd,” adds Emil, naming the student leader who supplied that famous justification for the Columbia protests.

“Does this strike a chord?” Stanley asks. “You could be the authors of this—these were kids your age. As you read this, do you feel detached and distanced?”

“It strikes a chord with me,” says Imani. When there were bullying problems at her high school, she says, “We wrote a letter to the principal. I could see myself writing a letter like this.”

At UChicago, says Emil, a student was arrested in 2010 after being loud

in the Reg and, police say, not showing identification. Students gave a different account, sparking protests, “but I never went,” he says. “I go to the library every day. It should have struck a chord with me, but it didn’t propel me into action.”

Stanley pulls up YouTube again: first Jimi Hendrix, then Jefferson Airplane performing at Woodstock. As Grace Slick wails, “Don’t you want somebody to love?” an ad pops up at the bottom of the screen. “Single and Over 40,” it reads. “Try Mature Singles Only.”

Stanley passes out the lyrics to “Subterranean Homesick Blues.” Then the students watch a film clip, a forerunner to modern music videos: Bob Dylan, in black and white, flipping through pages

of hand-lettered words from the song. “What’s the key lyric here?”

“‘You don’t need a weatherman to know which way the wind blows,’” says Sanders.

The students puzzle through the lyrics. “It warns you how to deal with the government,” says Emil. “Walk on your tiptoes / Don’t try ‘No-Doz’ / Better stay away from those / That carry around a fire hose.”

“There’s a strong note of paranoia about it,” says Charles, a fourth-year political-science major.

“I see it’s a critique,” says Sanders. “It just isn’t advocating anything.” Philippe nods, pointing at Sanders in silent agreement. ♦

## SYLLABUS

Historian Amy Dru Stanley specializes in American history from the early republic to the Progressive Era. She wanted to teach a course on the 1960s, she says, because “I was too young to understand it when I was living through some of it but too old to have studied it in a class. So for me, it’s this odd decade.”

Required texts included the anthology “*Takin’ It to the Streets*”:

*A Sixties Reader* (1995), as well as *America Divided: The Civil War of the 1960s* by Maurice Isserman and Michael Kazin (2000), *The World Split Open: How the Modern Women’s Movement Changed America* by Ruth Rosen (2000), *The Politics of Authenticity: Liberalism, Christianity, and the New Left in America* by Doug Rossinow (1998), and *The Struggle for Black Equality 1954–1992* by Harvard Sitkoff (1981; revised edition, 1993).

Students also watched the documentary films *Freedom Riders* (2011), *Berkeley in the Sixties* (1990), and *The Weather Underground* (2002), as well as numerous video clips from the era.

During the summer quarter, a ten-week course is compressed into three weeks; each class meeting lasts three hours. Class participation accounts for 30 percent of each student’s grade; two papers account for the other 70 percent.





# Where's the profit motive to keep nuclear power plants safe?

**I**n the wake of the March 11 earthquake and tsunami that damaged Japan's Fukushima 1 nuclear power plant, four UChicago experts addressed "the risks, realities, and future of nuclear energy" during an April 21 panel discussion at the Gordon Center for Integrative Science: **Hussein Khalil**, MBA'96, director of Argonne National Laboratory's nuclear energy division; **Kennette Benedict**, U-High'65, executive director of the *Bulletin of the Atomic Scientists*; urban and labor economist **Robert Topel**, director of the University's Energy Initiative; and moderator **Mark Peters**, PhD'92, deputy director for programs at Argonne. Watch the entire conversation, hosted by the Alumni Association in conjunction with Argonne and the Harris Energy Policy Institute, at [mindonline.uchicago.edu](http://mindonline.uchicago.edu).

**Hussein Khalil** I would like to comment on the earlier observation that the nuclear-energy industry, for its profit motivation, may not be emphasizing safety as strongly as it should be. If we look at Three Mile Island as an example, that accident was, first and foremost, a financial disaster for the utility GPU, which owned the reactor. The release of radioactivity was very minor. The health effects were very minor.

Today, of course, the same is true: all owners of these incredibly expensive facilities have a tremendous incentive to keep them operating, to keep them operating safely. And even in cases where [the reactors have] been paid off, they're cash cows, and they're of tremendous value. So I just want to differ from the view that safety and economics run counter to each other.

**Kennette Benedict** I think [the impression that safety is less a concern

than profits] has to do, perhaps, with the initiation and the design features at the beginning. For instance, even in the '50s we knew about [potentially safer] pebble bed reactors. In the pages of the *Bulletin*, you can see articles about traveling wave reactors; you can see a lot of designs that were shelved, perhaps because we needed reactors that could also produce plutonium for our nuclear weapons. That is a possibility.

But if we look at the life extension of some of these reactors—which are now 40, 50 years old, like the one at Fukushima—you have to ask yourself, why don't we shut those down, because we know there are better designs out there? Are we interested enough in safety to say, let's go full bore on some new designs that we are pretty sure are going to be a lot safer, rather than keeping around these old reactors, which, yes, may be cash cows, but that do present some really sticky problems.

A nuclear disaster anywhere is one everywhere. And surely the nuclear industry is clear about that, and they understand it. But it's the action in the face of that knowledge that leads me to believe that there's a disconnect there.

**Mark Peters** You're sort of going where I wanted to go. [The United States gets] 20 percent of our electricity from nuclear. There are certain realities that we face. I believe that 23 units have the same Mark I design [as the Fukushima reactor]. So what should the US do in response to Fukushima, Kennette?

**KB** Clearly, we've already taken the right steps. We're talking about inspecting existing plants, once again making sure that all of the safety measures that should be in place are in place.

I believe that this would be a good time to take a very deep breath and a very big pause. ... Let's sit down and think about this. I'm sure you at Argonne are working on new designs all the time. You would probably prefer that some newer techniques go into place. I know the Chinese, for instance, have a pebble bed reactor that they've been working on for ten years. Our expert, [former Argonne director **Rob Rosner**], tells me that the Germans perfected this.



**A research challenge for us is to improve the design of these systems.**

*Hussein Khalil*



**This would be a good time to take a very deep breath and a very big pause.**

*Kennette Benedict*



**Capital markets can get the investments, but there's uncertainty about government policies.**

*Robert Topel*



**The economic barriers to developing new plants are real.**

*Mark Peters*

So there are some new designs around. If we're going to build them, why don't we take a deep breath, pause, and say, maybe we should think about transformation of the industry. Rather than around the edges making sure that we've still got the right things, and the backups to the backups, and this in-depth defense, why not just take a major break now?

Rather than going ahead with a nuclear renaissance, as it's been called—one of [the *Bulletin's*] authors, Alex Glaser at Princeton, calls it an age of discovery—this horrible disaster allows us to take that historical analogy and think about this as a time for new discovery in nuclear technology, ones that will be, hopefully, much safer and take into account, at the outset, safety issues.

**HK** I completely agree that there's a tremendous incentive to develop new reactors that have more inherent, more intrinsic safety features, and we've been doing this for some time at Argonne and at other research organizations. A lot of these reactors, such as the pebble bed reactor and the liquid metal sodium cooled reactor, which have additional passive characteristics, have been developed to a fairly high degree of technical maturity, but none of them has been successfully commercialized yet because it appears that they can't yet compete on an economic basis with the existing technology.

A research challenge for us is to improve the design of these systems and try to simplify them without compromising their innate safety features, but to try to bring them to commercial acceptance.

**Robert Topel** Let's think about the costs of what we've been talking about. Kennette referred to the "horrible" accident, and I agree that it's sort of an extreme event, or "incident," as we used the word earlier. But let's keep in mind that 14,000 people died in the tsunami, and no one has died as a result of the catastrophe at the plant itself. And few have died in the past accidents, although many people die in coal mines and other things related to other sources of energy.

So most of the costs that we're talking about—and I'm using "costs" in an economic sense, and it's cost in the sense that I think you would use the

term as well—are things that we conceive could happen with the use of this energy source, not things that have happened with this energy source. That's not to deny that those things are really important; it's just that we haven't seen the kinds of disasters, as yet, from our historical record, if we act as frequentists in this, that are the same as the ones we might conceive could happen in the future.

**MP** The economic barriers to developing new plants, bringing new technologies online, are real. Quite frankly, from my perspective, I don't disagree with you at all that it would be nice to bring these new technologies online, but when you talk to [Exelon CEO] John Rowe or someone like that, there's no incentive, from his perspective.

**RT** And there's likely to be less incentive, because now we've discovered in this country that we have a lot of natural gas that, while it doesn't have the same carbon advantages that nuclear has, it has a 25 percent smaller carbon footprint.

I don't think we need to think about the scale of [nuclear] operations as a big impediment. Capital markets can handle that. They can get the investments that will fund as big a plant as you want, and they can look out into the future and see what the returns are.

But there's a great deal of uncertainty about government policies and what the tax on carbon or something like that might be; those are the kinds of impediments that I'm thinking about.

It's worth noting that we haven't built a new plant since [1996]. That's a little bit misleading because it's been longer than that since we've built a refinery in this country, but we end up producing more fuel from refineries. The same thing is happening, as I understand it, in nuclear plants. The share of nuclear and our total use of electricity has remained fairly constant, but we're using a lot more electricity, so it's worth squeezing more out of every plant or running them more efficiently than they did before. So it's not as if, by not building plants, the nuclear share or nuclear footprint in the electricity market is declining; in fact, it's been maintained over all those years. ♦

research

# CRYSTAL METHOD

*Nadrian Seeman, SB'66, uses DNA not to study biology  
but rather as a building block for nano-tiny structures.*

BY ANN FINKBEINER

**Ned Seeman invented the field of structural DNA nanotechnology.**

PHOTO BY JEFF SINGER







**Seeman's cube, based on research he published in *Nature* in 1991, "put DNA nanotech on the map."**



**This illustration of a truncated octahedron shows each edge with two double helical turns of DNA.**

**N**adrian Seeman walks to the podium to tell an audience of assorted scientists in Washington, DC, how to build things out of DNA. His first slide is his title, "DNA: Not Merely the Secret of Life"; his second slide is a naked lady. She's *The Dream* by Henri Rousseau, and she's sitting, pale among ferns and lotuses, benignly observed by lions, birds, and snakes. She represents biology, Seeman says, which "is *not* what we're talking about." For Seeman DNA is not just the genetic material by which life reproduces itself but a programmable Tinkertoy he arranges into structures that are nano-tiny—Tinkertoys the size of nanometers, a billionth of a meter. He calls this work "structural DNA nanotechnology."

Seeman, SB'66, looks out at the audience, the annual conference of the American Association for the Advancement of Science, straight on—Midwestern direct, a little amused, and not altogether sweet—and briefly reminds his listeners how DNA reproduces: its twin strands separate, then each becomes a template for its complementary strand. "Anybody who's been to kindergarten since 1960 knows this," he says. He explains how the original and complementary strands snap together: "get these guys naked in a pot, and they pair up." He shows how he's used DNA's complementarity to form the structures he wants it to form: squares, triangles, cubes, rhombohedrons. He's taken 30 years to make these structures, but now, he says, "I know where every atom is on these guys."

He doesn't say that he holds the Margaret and Herman

Sokol chair in chemistry at New York University, nor that in 2010 he was a cowinner of the Kavli Prize in Nanoscience—the biannual prize, designed to be the field's Nobel, was first awarded in 2008. Nor does he say that he created the field of structural DNA nanotechnology in the first place.

He does say that structural DNA nanotechnology now has goals as diverse as nanoelectronics for faster computers and for nanorobots that pick up nanoparticles and walk like inchworms or do somersaults. Seeman runs through his slides, most of which show dense science, some of which show art that illustrates the science, and some of which show science so beautiful it looks like art. He began his research, he explains, out of frustration. He'd always been interested in what he calls "the edge of life," meaning the large biological molecules that carry information, the molecules of life. To study those molecules, including DNA, he needed to make crystals of them, but three years into his first faculty job, he "had managed to crystallize nothing," he says. So "to save my butt," he decided that, rather than trying to crystallize DNA himself, he would make DNA make the crystals for him.

**S**eeman's hair is wild, his shirt is blue, and his jacket is sort of orange. He's overly direct and a little profane. All in all, he looks and talks as though he lives on the happy edge of anarchy.

Seeman was born in 1945; his mother was a schoolteacher and his father a salesman. His mother wanted to name him for her father, Nathan, but her father hadn't liked his name, and besides, she wanted an unusual name that would build character. So his mother made one up: Nadrian. Nadrian didn't like his name either and called himself Ned. He grew up in the Chicago



suburb of Highland Park, an only child, a quiet boy who liked reading. In eighth grade Seeman was put into high-school algebra classes—*Sputnik* had gone up, the country panicked about its scientific competitiveness, and the government sped up educating scientifically adept children—and he continued to be fast-tracked through advanced math and science. He was good at both, but the class that got under his skin was biology.

His teacher, John E. Broming, began the study of life at the bottom: how atoms bonded to form molecules, how molecules were the components of cells, and how cells formed tissues, then organs, then organisms. For Seeman, the information was galvanizing: biology was fundamentally chemical, chemistry was fundamentally physical, and physics was just plain fundamental, and you could choose the level at which you wanted to work, and all of it, Seeman thought, went back to atoms. Toward the end of the course, Broming told his students about a biological molecule, whose structure was discovered in 1953 by **James D. Watson**, PhD'46, SB'47, and Francis H. C. Crick, called deoxyribonucleic acid, DNA, that somehow or other was the center of life. The information was vague, but Seeman was impressed by the vagueness too: the center of life was a molecule?

He graduated from high school in three years, at age 16. His parents wanted him to stay local for college, so he applied to the University of Chicago. For the first time he met other students from all over the country, all as smart as he was or smarter, all holding forth on interesting subjects he knew nothing about. "I was getting dipped in the mental peppermint," he says, "that every first-year student at Chicago gets dipped in."

His third year, he took a biology course and learned more about DNA. Each strand in the double helix is a lineup of four different chemicals—four combinations of hydrogen, carbon, nitrogen, and oxygen—called bases. The base adenine recognizes the base thymine; guanine recognizes cytosine. The complementary bases click together and spiral up into a new double helix. Atoms get together into bases, bases into DNA molecules: Seeman liked the logic.

That same year, Seeman took biochemistry—his major, although he didn't much like it. The field seemed focused less on chemistry as a foundation of biological information than on the biochemical cycles of nutrition and metabolism, one small molecule being turned into the next small molecule, forming pathways, cycle after cycle drawn on huge charts. The charts required a lot of memorization, and Seeman could imagine nothing more boring. He did well

enough to graduate but no better.

He liked the idea of being a researcher, so with bad grades but good GREs, he applied to graduate schools in chemistry. He got into none of them. So he arranged to stay on at Chicago and take biochemistry courses again. It didn't go much better. The graduate adviser, John H. Law, said he should consider a new program at the University of Pittsburgh in biological crystallography. This time he got in.

Crystals are solids whose atoms form an orderly pattern; they're geometry in action. Consider salt: alternating atoms of chlorine and sodium, stacked so the pattern continues, sodium always next to chlorine in every direction and in three dimensions. Crystallography is finding that pattern, that structure, and where in the structure each atom sits. When Watson and Crick figured out DNA's helical structure, they did it largely with crystallography. Seeman had barely heard of crystallography, but it appealed to his sense of order and symmetry, it was fun, and he turned out to be good at it. He earned his PhD in three years.

In 1972 Seeman went to MIT for his postdoc. He'd been working on the crystal structures of RNA and verified a proposal by Watson and Crick about the way specific bases paired up, in detail at the atomic level. That work won him the 1974 Sidhu award from the Pittsburgh Diffraction Society. The award came to a net \$87 (\$100, less a meeting registration fee and a banquet ticket to pick up the award), but it was his first professional recognition. Later *Nature* called his research the "missing link" of nucleic acid structure.

Two years after winning the Sidhu, Seeman was searching for a faculty position. The job market for all crystallographers, not just the biological ones, was bad: of the hundred crystallography postdocs looking for jobs that year, only six would succeed. Seeman found himself kicking his bedroom wall: he'd been working for almost a decade, he'd gotten some recognition, yet he couldn't land a job. Finally, in 1977, by the time the hole in the bedroom wall was a half meter wide, he was offered a position at the State University of New York at Albany in the biology department.

The job was a bad match. His fellow biologists didn't share his appreciation for the chemistry and physics of biology; he felt intellectually isolated. He had longish hair and wore sneakers and jeans at a time when senior male faculty were more likely to wear jackets and ties. He was a bad match for the biology graduate students too; they were more interested in the hot new field of cloning, and they weren't much attracted to Seeman's crystallography. Without graduate students, he couldn't run a crystallography lab. Meanwhile, the field of biological crystallography had developed, and now crystallographers spent less time characterizing the structures of crystals and more time growing them. So although Seeman's strength was quantitative and analytical, and although he hadn't adequate manpower, he needed to spend time growing his own crystals.

He couldn't do it. Growing salt crystals is easy; growing biological crystals is high art. The DNA molecules he wanted to study rarely form crystals in nature. The lucky researcher could force their crystallization by controlling precisely every single thing about the process—temperature, acidity, concentration. If not, the molecules took whatever shapes they wanted to, and time after time they didn't want to be crystals. He'd have lunch every day with his friend

**I WAS GETTING  
DIPPED IN THE MENTAL  
PEPPERMINT THAT  
EVERY FIRST-YEAR  
STUDENT AT CHICAGO  
GETS DIPPED IN.**



Ken Karlin, and in addition to complaining about the administration, worrying about meeting women, teaching the more conservative Karlin how to swear, hoping they'd be recognized for good work, and knowing that good work took years, they fretted about whether they'd get tenure.

In 1980, two years away from the tenure decision, Seeman gave up on growing DNA crystals and decided instead to make computer models of them. In particular, he began modeling one specific step in DNA's metabolism. Two double helices unwind but only partially, leaving each helix with two free ends that join up with free ends of the other helix—a sort of a square dance where two couples break up and go off with each other's partners. The result is DNA restructured, no longer a double helix but a cross, a two-dimensional junction with four arms, four strands: branched DNA.

Seeman thought that branched DNA might have more than four arms. He went to the campus pub to have a beer and think about a six-arm junction, and for some reason he remembered a woodcut by M. C. Escher called *Depth*. In the image, ranks upon ranks of smiling fishes swim obliquely toward the viewer, their bodies parallel, each one with two lateral fins and a dorsal fin and a ventral fin that, along with the heads and tails, made each fish a six-arm junction. And if he joined the fishes—head to tail, lateral fins to lateral fins and vertical fins to vertical fins—they would make a three-dimensional scaffolding of little cages, an apartment building of tiny rooms. It would look like a crystal.

To construct the building, he'd have to join the six-arm junctions of DNA. He knew that genetic engineers could make DNA with what they called "sticky ends," building DNA helices with one strand longer, hanging off the end, and with a particular sequence of bases that in turn would join happily with its complementary sticky end. Put sticky ends on the branched DNA, Seeman thought, and they would "come together to form damn near anything, including crystals. So that was my little epiphany there."

That is, he could build an apartment building out of DNA, and into each room he could place any biological molecule so that whether or not the molecules wanted to, they'd be arranged into a crystal. By analyzing that crystal, he could be a crystallographer again. To celebrate, he had another beer.

By 1982 he had put together his tenure package—including his epiphany, mostly theory, with no successful experiments—and went off to Leiden University in the Netherlands to work with a chemist who offered to teach him to make his own sticky-ended branched DNA—which he did, he says, but "really badly." In the meantime, he'd been awarded tenure at Albany; a few years later, with

\$42,000 from the NIH, he bought a recently invented machine that made DNA to order. He treated the machine like a baby. In 1988 a collaborator of Seeman's became the chair of New York University's chemistry department and offered him a job in a more appropriate department with a lot of graduate students. Seeman took the job, moved his DNA machine to NYU, and he and his new students got to work.

**B**uilding structures with DNA is a little like cooking with ingredients that have a mind of their own. First his team decides what they want to make and sketch out a design. Next they either build a physical model or run the design through a computer model to see whether DNA will let them get away with it: a biological molecule arranges itself into coils, folds, and contortions according to its own rules, which biologists know only imperfectly. Then they work out the sequence of bases they want. Strands with exactly that sequence are made either with Seeman's machine, or, often these days, ordered commercially. The strands, looped and twisted, are put in a solution and cooked to 70, 80, or 90 degrees Celsius until they straighten out and pair up. Over hours or days or weeks, they cool and condense out. If the DNA hasn't formed the intended design, Seeman and his colleagues have screwed up and need to go troubleshooting. "Nothing works the first time you do it," Seeman says. He cites Hofstadter's Law: "it always takes longer than you expect, even if you take into account Hofstadter's Law."

By 1991 they published in the journal *Nature* their first structure, a cube. But the cube couldn't be put with other cubes into a three-dimensional scaffolding for a crystal because it was, Seeman says, "a floppy piece of crap, and you can't make a crystal out of something that's floppy." Their next structure, a truncated octahedron, had some loose sticky ends that could in principle connect to the next truncated octahedron, but the first one took two years to make and it was floppy too. So they moved on to other shapes, trying to find ones that were interesting and nonfloppy and repeatable in a timely manner.

All along, Seeman and his team worked pretty much alone, until they published their floppy cube and it was admired in the popular-science press. Afterward, it became increasingly clear that, by treating DNA less like a biological molecule and more like an architectural widget, Seeman had created a new field, structural DNA nanotechnology.

The DNA structures qualified as nanotechnology because they were between a few and a hundred nanometers across. Nanotechnology itself is not really a distinct field, any more than "kilotechnology," the technology of kilometer-scale things, would be. It's an umbrella term for any number of tiny technologies made from any number of materials. Since 1998 its federal funding has been coordinated by the multi-agency National Nanotechnology Initiative, and the science is housed in centers whose titles include words like nanomaterials, nanomanufacturing, nanobiotechnology, nanomedicine, nanoconductors, nanomechanical. In the mid-1980s nanotechnology had been more promise than practice, and when Seeman invented his subfield of DNA nanotechnology, he had only just heard the term. It made him feel like M. Jourdain in Molière's *Le Bourgeois Gentilhomme*, who was delighted to discover that he had been speaking

**AFTER 25 YEARS  
OF ONE-NIGHT  
STANDS, SUDDENLY  
I'M AN OVERNIGHT  
SUCCESS.**

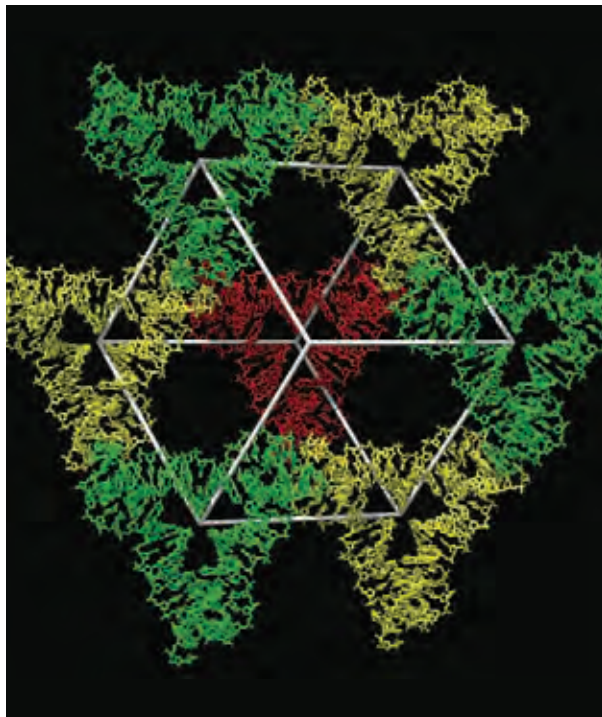


**Over a beer at the campus pub, Seeman had an epiphany when he recalled the M. C. Escher woodcut *Depth*.**

prose all his life. By now Seeman was getting grants, he had good students, and around 1999, “after 25 years of one-night stands,” he says, quoting an old show-business saying, “suddenly I’m an overnight success.”

During the next decade the field blossomed. A scientist at another lab used some of Seeman’s work and invented DNA origami, double helices folded to form a large flat surface, a floor, from which little snippets of sticky-ended DNA stick up. Seeman attached those snippets to strands of DNA that had been engineered into a little pivotable arm. Another scientist used a DNA origami floor and built a four-legged DNA spider to walk across it: the legs are sequenced to attach to the sticky ends of the snippets; then an enzyme cuts one leg’s attachment, and that leg moves on to the next snippet; then the enzyme cuts the second leg’s attachments, and it moves to the snippet after that. Seeman built such a walker with four legs and three arms, so it could not only crawl but could also pick up a nanoparticle and carry it to another snippet and either drop it off or pick up another one—a nanoscale assembly line.

Just what all this is good for is still a little unclear; a June 3 *Science* article says the field is still doing the basic science necessary for real-world applications. So far, scientists have learned to begin with bases that they string together into DNA strands that assemble themselves into three-dimensional structures that further assemble themselves into designed crystals—a level of control that seemed impossible 30 years ago when Seeman started. Today the basic science of structural DNA nanotechnology is practiced in more than 60 labs, all going in different directions. “The



**These triangles represent “the cavity in the first designed crystal that we made,” Seeman says.**

whole notion of this DNA Tinkertoy could be used for a gazillion things,” says Seeman: DNA tweezers can open and close; DNA baskets can hold things. Labs make DNA nanotubes and nanoboxes; one lab makes DNA nanoflasks.

But no one has done what Seeman wanted to do in the first place: build a DNA apartment building with the same biological macromolecules in each room and do crystallography on that macromolecule. So far Seeman’s lab has individual rooms shaped like triangles stacked in a building shaped like a rhombohedron. Seeman knows exactly what each room looks like and where every atom in it is because he designed it that way. Crystallography on DNA apartment buildings could be used to design drugs to fit certain targets, and some day such a building could assemble itself. He hasn’t yet put the macromolecules into the rooms. “We’re working on it,” says Seeman. “Nothing is as easy as it looks.”

With structural DNA nanotechnology now such a large field, Seeman takes comfort in the diffusion of responsibility: “We don’t have to make all the discoveries,” he says. “We don’t have to make all the mistakes.” Another comfort is personal: “I’m still the old man in the field, and I get a little recognition for that.” In 1995 Seeman won the Feynman Prize, and in 2010 he shared the Kavli Prize, which was 5,000 times larger than his first \$100 award. When he summarizes his career, he seems more impressed by his frustrations and near failures than by his eventual success. Still, prizes and a proliferating field—doesn’t that feel good? “It does feel good,” he says. “It’s exciting that there’s a whole field based on what I was thinking about, drinking a beer, in 1980.” ♦





architecture

Cool hue: Mansueto's 691 glass panels have three layers, filter 98 percent of UV rays, and reject 73 percent of solar heat.









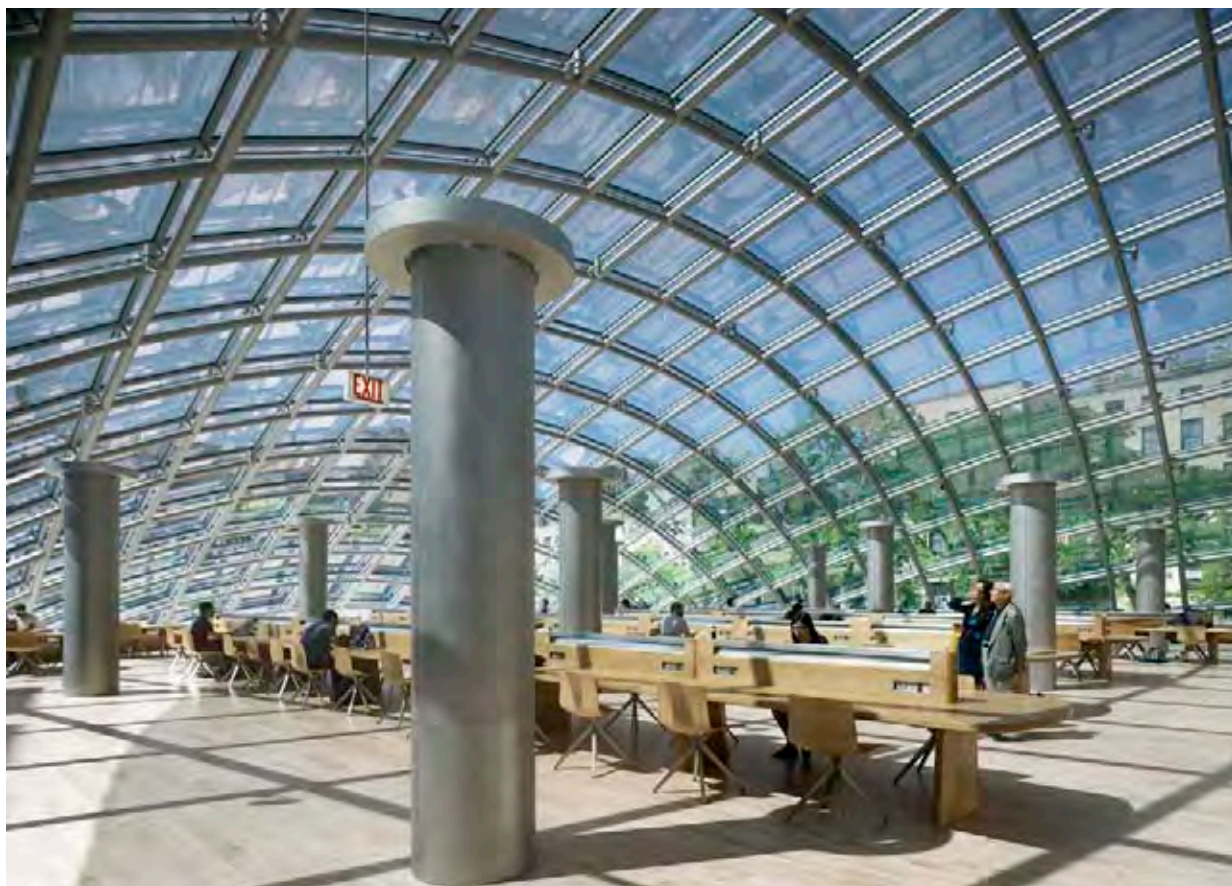
By evening the Mansueto Library emits a glow from its base to the ellipse's highest point, 35 feet.

**T**he critics have visited the Joe and Rika Mansueto Library, had their say, and left: the *Chicago Tribune* praised its “ingeniously conceived and largely well-executed design,” and *Wired* hailed it as “the library of the future.” By summer, organized tours for students and staff had given way to visits by prospective students and parents who wandered in and snapped photos. Jam-packed this past spring with students trying out the most popular study space on campus, the sunny reading room was now less than half full. Two months after the library opened its doors in May, the ordinary routines of daily life in Mansueto were taking shape.

The grand reading room and circulation service center occupy slightly more than half of the space under the Helmut Jahn–designed dome. In the northwest quarter sits the conservation laboratory, where **Ann Lindsey**, head of conservation at the University of Chicago Library, is busy flattening out maps. On work tables lie a pair of partially hand-drawn and -colored maps of Chicago Heights, Illinois, dating from 1906 and 1907. Inside the solvent room (a freestanding space under the dome with its own venti-

lation system), a map of the Chinese city Fuzhou, dating from between 1860 and 1911, sits on a suction table, where a vacuum gently holds the delicate paper in place while the conservators work. Lying nearby is a 1949 map of London that had been folded for so long that it broke along the paper’s brittle creases. Lindsey and her two-person staff had pieced it back together, matching up every lane and alley, with Japanese kozo tissue and wheat-starch paste. A new backlit table made that job considerably easier. In fact, every aspect of their work has gotten easier with the move, Lindsey says. Their former quarters in the Regenstein were so cramped that it was difficult to work on more than one thing at once—to say nothing of spreading out four large maps simultaneously. Now, she says, they have “space for people, space for items, space for equipment”—including paper presses, a sink to wash and deacidify paper, and a freezer to halt water damage or kill insects that feed on books, such as silverfish or moths.

In the digitization laboratory next to conservation, a volume of Diderot’s 18th-century *Encyclopédie*—one of the first encyclopedias—rests in a wooden cradle. The cradle, draped in cloth, supports large books while they’re held open for photographing. A digital scanning back camera, mounted on a copy stand above the cradle, is set to take



By day plenty of sunshine lights the 180 seats in Mansueto's Grand Reading Room.

pictures of the book's illustration plates, adding to the *Encyclopédie's* online version produced by the Project for American and French Research on the Treasury of the French Language. Before the digitization group settled in Mansueto, it had been in temporary space over the past few years, explains **Kathy Arthur**, the library's head of digitization. The new space is more than twice as large and couldn't open soon enough: by July the digitization facilities were booked solid for the coming academic year.

The dome, its 691 unique glass panels, the reading room, circulation desk, and the preservation spaces are all just the tip of the iceberg. Mansueto's *raison d'être* is its high-density automated storage system. The racks occupy a five-story cavern below ground, with room for 3.5 million volumes. By the end of the summer, explains **Jim Vaughan**, assistant director for access and facilities services at the library, the automated storage system will be one-third full, with the remainder reserved for future transfers, to make shelf space in other campus libraries available for browsing future acquisitions.

Stairways and an elevator on the dome's perimeter lead down 55 feet to the building's bottom level, where roughly 70 College students have been hired to fill the automated storage system this summer. For eight hours a day, they load

large journal runs into 24,000 bins and elephant folios into 1,200 racks that comprise the automated retrieval system—the largest, Vaughan says, in North America.

"We believe that having materials close by enhances their use and that storing them remotely will do the opposite," library director **Judith Nadler** told the University News Office this past spring. Placing them in the automated storage racks not only keeps them on campus (some had been in temporary storage in Indiana) but also frees up shelf space for materials more likely to benefit patrons while browsing.

With students loading bins and racks this summer, Vaughan notes, the basement will likely never be this busy again. Once the work is finished, a normal day will find the basement bereft of life; the environment will hover at 60 degrees and 30 percent relative humidity, and the spindly yellow robotic cranes and lifts will do their jobs in the dark.

Mansueto's capacity will let the library keep housing newly acquired works for another two decades. What happens after that is anyone's guess, considering how rapidly digital media is changing the world of publishing. But a little future proofing goes a long way: by accommodating books both electronic and paper, Chicago's library of the future is likely to retain that title for a long time. ♦





**In the digitization lab, Sara Liss, AB'11, uses the Zeutschel face-up scanner to capture a bound manuscript.**



**Head of conservation Ann Lindsey talks with a visitor about treating a century-old map of Chicago Heights.**

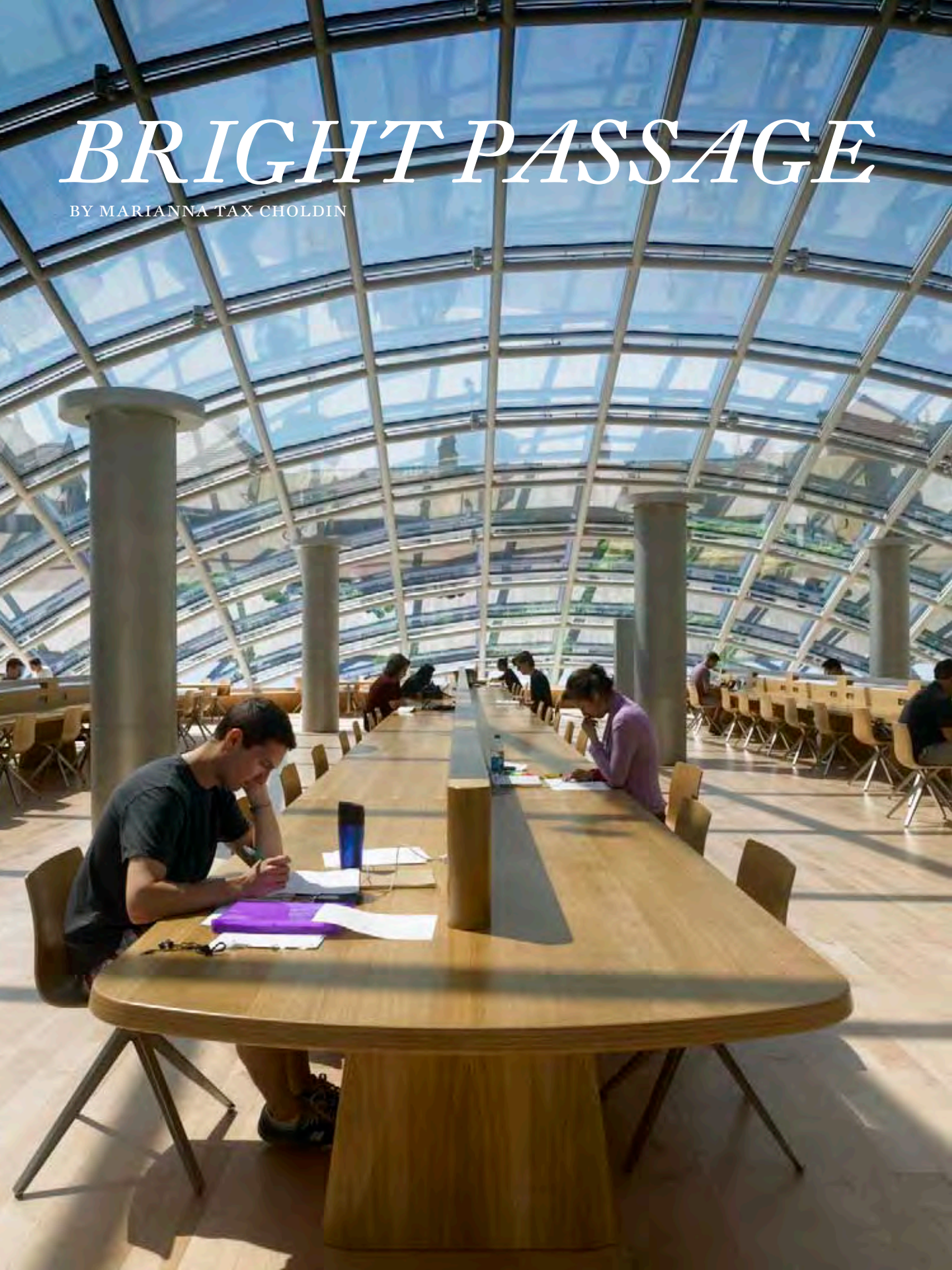






# *BRIGHT PASSAGE*

BY MARIANNA TAX CHOLDIN







**A sunlit walkway connects the Regenstein to the Joe and Rika Mansueto Library.**

I am standing in the cheese department of a shiny new supermarket in Champaign, Illinois, weeping and remembering. It's late October 1991, and I returned yesterday from Moscow, which appears to be going under. Glasnost and perestroika, those reforms from the top, produce wondrous, heady sensations in my friends—librarians, journalists, and other intellectuals—but Soviet life as they knew it is grinding to a halt, and they are suffering. In a cold, wet October, the windows in my crumbling hotel room didn't shut and were rimmed with frost. There was no food for

breakfast, and prostitutes roamed the lobby and halls. Worse by far, one of my friends can't find milk for her baby in any store, no matter how enterprising she, her mother, and her mother-in-law are about finding lines to stand in. And libraries, so important in Soviet times, are suffocating from lack of funds and opportunities to grow and change. Like everything else in Russia, they have nothing. Libraries don't even have rubles to meet their payrolls.

Now I'm back in Champaign, jet-lagged and miserable from a cold, my head and my heart still with my friends in Moscow. And here is this incredible cheese department, with dozens—maybe hundreds—of brands and types and sizes and shapes, sliced and unsliced, flavored and plain, hard and soft, gathered from all over the world. Beyond the cheese department are the fresh fruits and vegetables, and beyond that meats of every kind, breads, and cereals. I'm overcome with sadness and guilt.

So what has this moment got to do with the new Mansueto Library? In my mind, quite a bit. As a member of the visiting committee for the library, I've followed the Mansueto from its beginning, when it was just plans on paper. Now it stands, complete and open to the public. Millions

of books and archival boxes deep in the earth, cleverly stored and retrieved by sci-fi-like machines. On the main floor, a short walk from Regenstein Library by means of a wide and bright passage—past the Special Collections Research Center, where faculty, students, and visiting scholars can work in light and pleasant surroundings—are a state-of-the-art preservation lab, a digital imaging room, and a comfortable and attractive reading room, already populated by students. And above it all, a magnificent, airy glass dome, drawing in the light, symbolizing openness, the joy of learning, of creating new knowledge, of access for all, and of free expression.

For me, the Mansueto is the cheese department in the Champaign supermarket: it has everything anyone could want. It is the latest addition to a great academic library, the newest jewel in its crown. And I'm not weeping for Russia anymore, although it gives me plenty of nervous moments. Twenty years have passed, and the world has changed. Many Russian libraries have books again, and technology, thanks to enterprising directors, to government at various levels that recognizes the value of libraries, and to the gradual development of civil society.

The world is still a troubled place, as it no doubt always will be, but we mustn't let that keep us from rejoicing in a magnificent new library and improved access to information and knowledge for scholars everywhere. ♦

**Marianna Tax Choldin, U-High'59, AB'62, AM'67, PhD'79, who received a 2011 Alumni Association Public Service Award, is the Mortenson distinguished professor emerita at the University of Illinois at Urbana-Champaign. Her work to improve library services earned her Russia's Pushkin Gold Medal.**

profile

# SCIENCE? FICTION?

*For 41 years Stanton Friedman, SB'55, SM'56, has traveled the world with a simple message: UFOs are real.*

BY LYDIALYLE GIBSON

**In 2007 the Mutual UFO Network, an organization that investigates UFO phenomena, gave Friedman its highest award for ufology.**

PHOTO: DAREN LEOW





**T**he kid knew his teacher was wrong. And looking back, there was never really a chance that he would let it go. It was the middle of the school year, 1943, and Mrs. Rose Gutkin was giving her fifth graders in Linden, New Jersey, an astronomy lesson: the sun, she explained, remains motionless, and all the planets orbit around it. But **Stanton Friedman** had just read in his encyclopedia that the whole solar system, including the sun, orbits the center of the galaxy. “At 12 miles a second,” he says. “That impressed the heck out of me. I mean, that’s fast.”

So Friedman raised his hand, corrected his teacher, and got a dressing-down. The next day he brought the encyclopedia to school. “And she reluctantly agreed that, well, maybe that’s the way it was.”

Almost seven decades later, Friedman, SB’55, SM’56, still tells this story—in vivid, exuberant detail—to give people a sense of who he is: a methodical researcher, a steadfast debater, an investigator, a scholar. A scientist.

He’s gotten used to proving his qualifications, convincing people that he’s serious and, occasionally, that he’s sane. Since 1970 Friedman, who half a lifetime ago worked as a nuclear physicist with a government security clearance, has been a full-time ufologist—that is, someone who studies unidentified flying objects. In national archives and presidential libraries, Friedman pores over declassified documents and scientific reports on UFO sightings and unexplained aerial events. At times his job is not unlike detective work: tracking down witnesses and collecting their testimony, chasing leads that turn up in his reading or that come to him, as they sometimes do, from someone confiding a name or a place or a piece of evidence. Friedman claims to be the “first civilian investigator” at Roswell, New Mexico, where many people believe that in July 1947 a spaceship crashed in the desert. Indeed, it was largely Friedman’s digging, starting in the late 1970s, that brought widespread attention to Roswell, an incident that had been all but forgotten.

His books have titles like *Flying Saucers and Science: A Scientist Investigates the Mysteries of UFOs* and *Crash at Corona: The US Military Retrieval and Cover-Up of a UFO*. His television appearances are myriad—*Unsolved Mysteries*, History Channel documentaries, network interviews on *Nightline* and *CBS Sunday Morning*. Friedman was a guest on three *Larry King Live* shows dedicated to UFOs, where he sat shoulder to shoulder with disbelievers and witnesses, wearing his usual dark suit and red pocket square, his wild wiry eyebrows flashing above excitable green eyes. “Physical trace cases, radar variable sightings—evidence!” he boomed during a 2007 show, squalling with UFO skeptic Michael Shermer. “You don’t talk about evidence!”

But the cornerstone of Friedman’s career is something much simpler: a series of slides and a stack of lecture notes. He spends months every year traveling to classrooms, conference halls, and auditoriums around the world, giving a lecture called “Flying Saucers ARE Real.” The evidence is overwhelming, he says, that the planet is being visited by extraterrestrials, and that the US government is covering it up. And he’ll debate anyone, anywhere, who argues otherwise.

**T**his past July, Friedman turned 77. He figured he’d be retired by now. But seeing his eyes widen when he imagines alien sojourners propelling themselves to Earth in nuclear rockets (“Fusion! Every astronomer in the world knows that’s what powers the stars, but they never give a thought to using it for a propulsion system”), or hearing story after story tumble out of him—the day he found out about Roswell and went searching for the only witness whose name he knew, the first time he looked up from a podium and saw 400 people looking back—it’s hard to believe that he could ever retire.

Friedman lives in Fredericton, Canada, a university town straddling the St. John River, 60 miles north of Maine. His living room is bright and floral, its walls and tabletops adorned with family photographs and watercolors painted by his sister-in-law. Most are cheerful tableaux: Friedman and his second wife, Marilyn; his three children from his first marriage; his daughter from his second; his 24-year-old grandson; and his great-grandson, James.

His basement study is a different scene altogether: a riot of strewn papers, sprung-open filing cabinets, and groaning bookshelves. Against one wall, rolls of paper held together by rubber bands are stacked up like ancient scrolls. Friedman’s desk and computer occupy a small, semicleared oasis by the door. “See,” he says, surveying the chaos, “what I really needed was a secretary.”

Friedman and Marilyn, a New Brunswick native, moved to Fredericton 30 years ago, and since then he’s become a local celebrity. Mayor Brad Woodside, who declared August 27, 2007, Stanton Friedman Day, wishes his famous citizen would mention Fredericton more often on television. “He’s a scientist, and a good one,” says Rod Cooper, a computer-science professor at the University of New Brunswick. As a college student decades ago, Cooper saw a UFO as he crossed a toll bridge on his way to his parents’ home in Niagara Falls. Five bright objects appeared in the distance, flying in a V. At first he thought they were Piper Cubs, but in an instant they were right overhead. “Amazingly close,” he says, and amazingly fast. Then just as suddenly they were gone. At the tollbooth people were standing beside their cars, looking up. “I think it’s very important,” Cooper says, “to have people like Stan who take a very objective, scientific research view of this thing.”



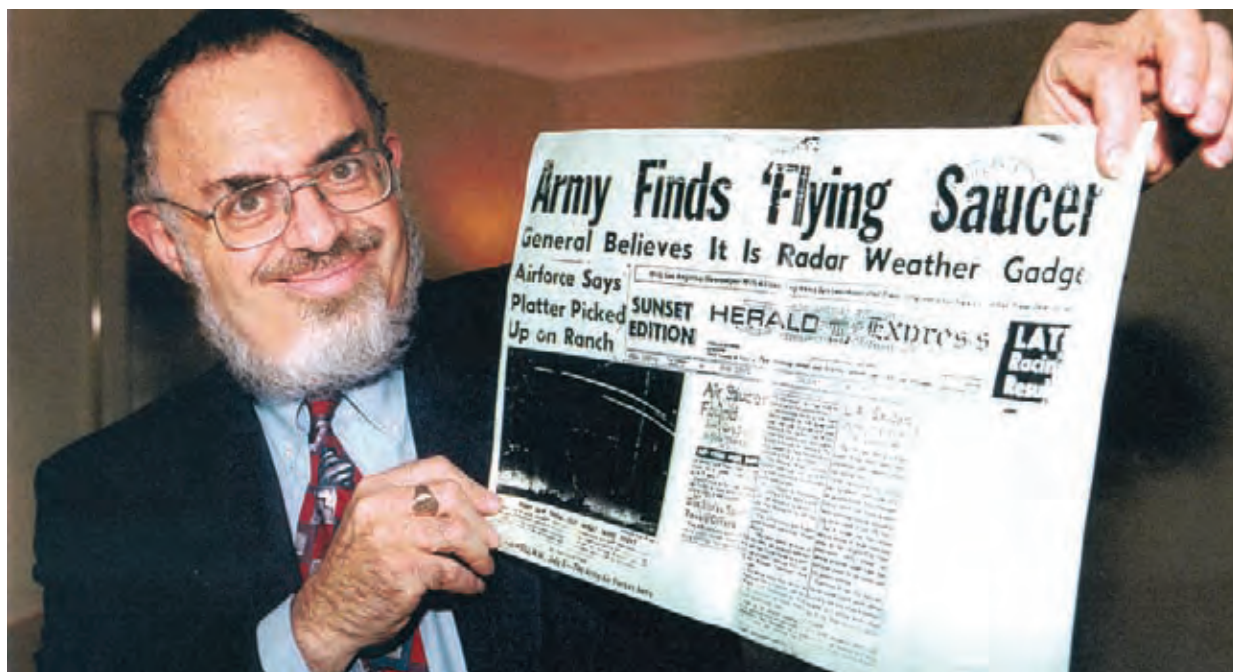
Friedman was living in Pittsburgh when his UFO interest became a calling.

## RESPECTED BY ALL, RIDICULED BY SOME, LOVED BY OTHERS.

“Respected by all, ridiculed by some, loved by others,” is how Roderick Nolan, Friedman’s friend and sometime boss, sums up his hometown reputation. A founding executive at a Fredericton engineering and consulting firm where Friedman freelanced a few projects, Nolan remembers the time a few of the company’s technicians climbed onto the roof to dangle a fake flying saucer outside Friedman’s office window. “He came in one morning and it was hanging there,” laughs Nolan. “All in good fun.”

**A**n impulse buy set the trajectory for Friedman’s life’s work. He needed one more volume to round out an order from a discount bookseller in New York so he wouldn’t have to pay the postage. It was 1958, and Friedman, two years out of grad school at the U of C, was married and living in Cincinnati, working at General Electric on aircraft nuclear propulsion systems.

The title that caught his eye was a hardcover marked down to \$1 called *The Report on Unidentified Flying Objects*, by Air Force captain Edward J. Ruppelt. The first chapter opened with a jolt: “In the summer of 1952, a United States Air Force F-86 jet interceptor shot at a flying saucer. This fact, like so many others that make up the full flying saucer story, has never before been told.” In the early 1950s, Rup-



Among Friedman's Roswell memorabilia is a photocopy of the *Los Angeles Herald-Express* from July 8, 1947.

pelt—who coined the term “unidentified flying object”—headed Project Blue Book, a group of high-ranking military officers convened to analyze UFO sightings and determine if the mysterious things in the sky posed a threat to national security. By the time Project Blue Book folded in 1969, it had evaluated 12,618 reports of sightings.

Friedman found Ruppelt's book intriguing, if not entirely convincing. But he was curious enough to keep UFOs on his reading list. In 1959 a job with Aerojet-General Nucleonics brought him to Northern California, where a local librarian fed him book after book on flying saucers. “I must have read 15,” he says. By that time he was more than intrigued.

Then he made what he calls one of the “big discoveries” of his life: *Project Blue Book Special Report Number 14*, a vast statistical analysis of 3,201 UFO cases, with hundreds of graphs, tables, charts, and maps. “I was in data heaven,” Friedman says. According to the report, about 22 percent of sightings were declared “unknown.” That means their origin couldn't be determined even after all the evidence was in—these were objects that didn't look like airplanes or balloons or any other discernible vessel. They maneuvered in strange ways, hovering or changing speed and direction suddenly. Sometimes witnesses, many of them Air Force pilots, described seeing actual saucer- or cigar-shaped objects.

Unknowns tended to be cases with better information: 35 percent of “excellent” sightings—those with more reliable witnesses and, sometimes, corresponding physical evidence—defied explanation; only 19 percent of poor ones did. And the longer a sighting lasted, Friedman says, the more likely it was to remain unexplained: 36 percent of unknowns were seen for more than five minutes. In *Project Blue Book Special Report Number 14*, Friedman found facts, numbers, evidence to hang his conclusions on. “I'm the

Ralph Nader of UFOs,” he once told a newspaper reporter, “not the Billy Graham.”

The report, which omitted classified information, was released to the public in 1955, and it came with a summary that quoted the Secretary of the Air Force: “On the basis of this study, we believe that no objects such as those popularly described as flying saucers have overflowed the United States.” But Friedman knew that assertion plainly contradicted the numbers in the report. “Now, I was working under security, and sometimes you've got to tiptoe around the truth a little bit,” he says, “because you can't release classified information. But I'd never run across a situation where someone in authority in a very widely distributed press release was lying through his teeth.”

Not only was he now certain that aliens had visited Earth, Friedman also was convinced that the US government was hiding what it knew. “I was shook up,” he says. He joined national UFO organizations and began corresponding with authors who'd written about flying saucers. His family moved from California to Indianapolis, and then in 1966 to Pittsburgh, where Friedman worked on nuclear rockets at Westinghouse Astronuclear Laboratory. He read more UFO reports. “In every large-scale scientific study,” says Friedman, whose lectures cite five—including one by Northwestern astronomer **J. Allen Hynek**, SB'31, PhD'35—“20 to 25 percent of the cases can't be explained. That's a lot.”

In Pittsburgh Friedman's fascination became a calling. He and a few others founded a UFO group and set up a 24-hour hotline people could call to report a sighting. “We hoped to get a team there while it was still happening,” Friedman says. They never quite did. “Got there within ten minutes once. Just after it was over.”





Friedman in his study in 1977—a tidier place back then.

In fact, one of the world's foremost experts on flying saucers has never seen one, although for a moment a few years ago he thought perhaps he had. Friedman was filming a TV spot on an unlit New Hampshire road where, in 1961, a couple named Betty and Barney Hill claimed to have been abducted by a UFO while driving home from Quebec. (Friedman co-authored *Captured!*, a book on the abduction, with the Hills' niece, Kathleen Marden.) As the film rolled, the cameraman looked up and said, "What's that?" Friedman turned to see a mysterious light rise and then darken in the gloomy distance. And then another, and then another. But a little sleuthing revealed a terrestrial source. "We think it was battlefield flares dropped by the Vermont National Guard," Friedman says, shrugging. "That's the closest I've come."

In 1968 Friedman did his first radio show and gave his first UFO lecture at a book-club meeting in a Westinghouse colleague's living room. "I came up with some slides and everything." He got on the roster of a lecture series at Carnegie Mellon University, and afterward the Engineering Society of Detroit booked him for a dinner lecture. The event sold out three weeks in advance, all 1,008 seats.

## I'M THE RALPH NADER OF UFOs, NOT THE BILLY GRAHAM.

By 1969, when Westinghouse laid Friedman off and, he says, "the bottom began falling out of the advanced nuclear and space systems business," the UFO business was booming. His side schedule bustled with lectures and radio appearances. A crowd of 500 nuclear society members came to hear him speak at New Mexico's Los Alamos National Laboratory. When he addressed a joint meeting of Pittsburgh's aeronautics and electrical engineering institutes, people stayed so late, "the janitor had to kick us out."

More than 700 lectures and untold miles later, he's still on the road. In the beginning he went wherever his cold calls could open a door to a lecture hall or a classroom, no matter how obscure the college or how small the town. He's spoken at Cornell and Harvard, but also at Cayuga Community College in Auburn, New York, and Midland Lutheran College in Fremont, Nebraska. These days Friedman travels to conventions and talks around the globe: Saudi Arabia, Brazil, Korea, Italy, Australia, Finland, China.

**W**hat first drew him to UFOs were the stories: mysterious objects appearing on air traffic controllers' radar screens in places where the sky was empty of airplanes, World War II bombers seeing strange metallic spheres and colored balls of light, Air Force pilots engaging with phantasms they could sometimes photograph but never catch. "I have had people quietly tell me," Friedman says, "about cases in which a pilot went up to chase UFOs," with orders to shoot them down. On at least seven occasions, he says, pilots went up but never came back.

The stories are endless. In 1950 a couple in McMinnville, Oregon, took two famous pictures that seemed to show—with arresting clarity—a flying saucer floating above the barns and brambles of their farm. The Canadian navy went searching in 1967 for a UFO that a dozen people saw crash into the water near Shag Harbor, a Nova Scotia fishing village. Friedman wrote about Ronnie Johnson, a Kansas teenager who, in 1971, happened upon a brightly lit mushroom-shaped object hovering two feet above the ground on his father's farm. Johnson and his dog were temporarily paralyzed, and as the UFO sped away, it left behind a glowing ring of dirt, which afterward could not absorb water. Soil samples revealed "too high a level of soluble mineral," Friedman says. "I call it salty, because that's what it boils down to." Even years later, nothing would grow on that spot.

As compelling as the first-person accounts were, what spoke to Friedman most clearly was the data. He's always had a numerical mind, a gift he believes he inherited from his grandfather, a fruit and vegetable peddler and Eastern European immigrant who arrived in America with no money or education, but with a formidable internal arithmetic. He was one of those guys, Friedman says, who could write down a string of prices on a paper bag and add them in his head. "No

**In 1968 Friedman spoke to NASA employees in Downey, California, where the *Apollo* command modules were built.**

# PEOPLE SAY, 'WHY WOULD ALIENS COME HERE?' I SAY, 'I THINK THEY'RE HERE TO QUARANTINE US.'

cash register." Two generations later, Friedman pulled so far ahead of the other third graders in math that, by the middle of the school year, his teachers moved him to fourth grade.

Analyzing UFO data, Friedman drew on his nuclear physics expertise. He looked for clues to extraterrestrial propulsion systems in the fission-powered aircraft carriers and an electromagnetic submarine built in the 1960s by a Westinghouse colleague. "It is possible to envision an airborne analog" of that submarine, Friedman writes in an article posted on his website, "in which seawater is replaced by ionized electrically conducting air, and conventional electromagnetic fields are produced by superconducting magnets which need little space, very little power and weight, and generate very high magnetic fields. ... The resulting system would be symmetric, highly maneuverable, relatively silent, often have a glow around it, and be capable of sudden starts and stops."

The other lure of UFOs was, simply, wonder. He remembers looking up at the New Hampshire sky his first night at Young Judea camp and thinking, "Where did all those stars come from? You sure didn't see them in Linden, New Jersey." And that's exactly the point, he says: "Just because you can't see it doesn't mean it's not there, which is an important lesson to learn as a researcher." Those same stars had hung over his roof every night back home in New Jersey, but he'd never laid eyes on them. "Who ever saw the Milky Way? Well, in New Hampshire, you could see the Milky Way."

**M**ost people believe in aliens. They may not tell their friends and neighbors, but they tell pollsters. In 1997 a CNN poll found that 80 percent of Americans think the government is hiding information about UFOs, and 64 percent believe that extraterrestrials have contacted humans. In a 2007 Associated Press poll, 14 percent said they'd seen a UFO. These numbers do not surprise Friedman. At the end of his lectures, he often asks the audience how many of them have seen a flying saucer. "And the hands go up," he says, "each one thinking he's the only one. They know I'm not going to laugh, but they're not sure

about the other people." Then he starts counting: 1, 2, 3, ..., 10, 15, 20, ... By the time he's finished, he says, usually ten percent of the audience have their hands raised. In a crowd of 500—not unusual for Friedman—that's 50 people. "But then I ask, 'How many of you reported what you saw?'" Nearly every hand drops. "I've discovered," he says, "that there is this huge body of sightings that you won't run into unless you directly ask, in circumstances where it's OK for people to admit it."

In 40 years, Friedman says, he's had only 11 hecklers—"and two of them were drunk." Before he began lecturing professionally, he organized UFO-themed brown-bag lunches with nuclear physics colleagues. People were more interested than incredulous. "I'm not a masochist," he often says. "I wouldn't do this if people gave me a hard time."

**O**ver a lunch of chardonnay and seafood chowder at a restaurant overlooking the St. John River, Friedman and his friend Roderick Nolan start in on a conversation about ancestors from the old country, which leads to the Irish potato famine and the Holocaust, which leads to the definition of God and the brutality of the human race. "Regardless of where we live in this little speck of dust in the cosmos, we are capable of terrible things," Nolan muses. Which sends Friedman, as so many topics inexorably do, back to UFOs. "We're a primitive society whose major activity is tribal warfare," he says, echoing a line from his lecture. "People say, 'Why would aliens come here?' I say, 'I think they're here to quarantine us.'" Now he's off and running: "At the end of World War II, there were three signs that soon these Earthling idiots would be moving out into the galaxy: V-2 rockets, atomic bombs, and radar. ... And isn't it amazing, the only place in the world where you could check on all three of those technologies is southeastern New Mexico. That's what Roswell was."

Probably more than any other single UFO event, the Roswell incident has dominated Friedman's professional life. He heard about it in 1978, 31 years after a rancher reported finding what he described as tinfoil, paper, pieces of rubber, and kite-sized sticks. He went to the sheriff, who went to the authorities at the Roswell Army air field, who, after first issuing a press release saying that remains of a "flying disc" had been recovered, revised their conclusion. What the rancher, Mack Brazel, had found, they explained, was debris from a high-altitude weather balloon. Newspapers across the country picked up the story, but it faded quickly.

Friedman was in Baton Rouge for a lecture at Louisiana State University when he first heard the details. A TV station manager told him about a buddy from his ham radio days named Jesse Marcel, who lived in nearby Houma. In 1947 Marcel had been the first Army intelligence officer on the scene in Roswell. He'd hiked out to where the debris

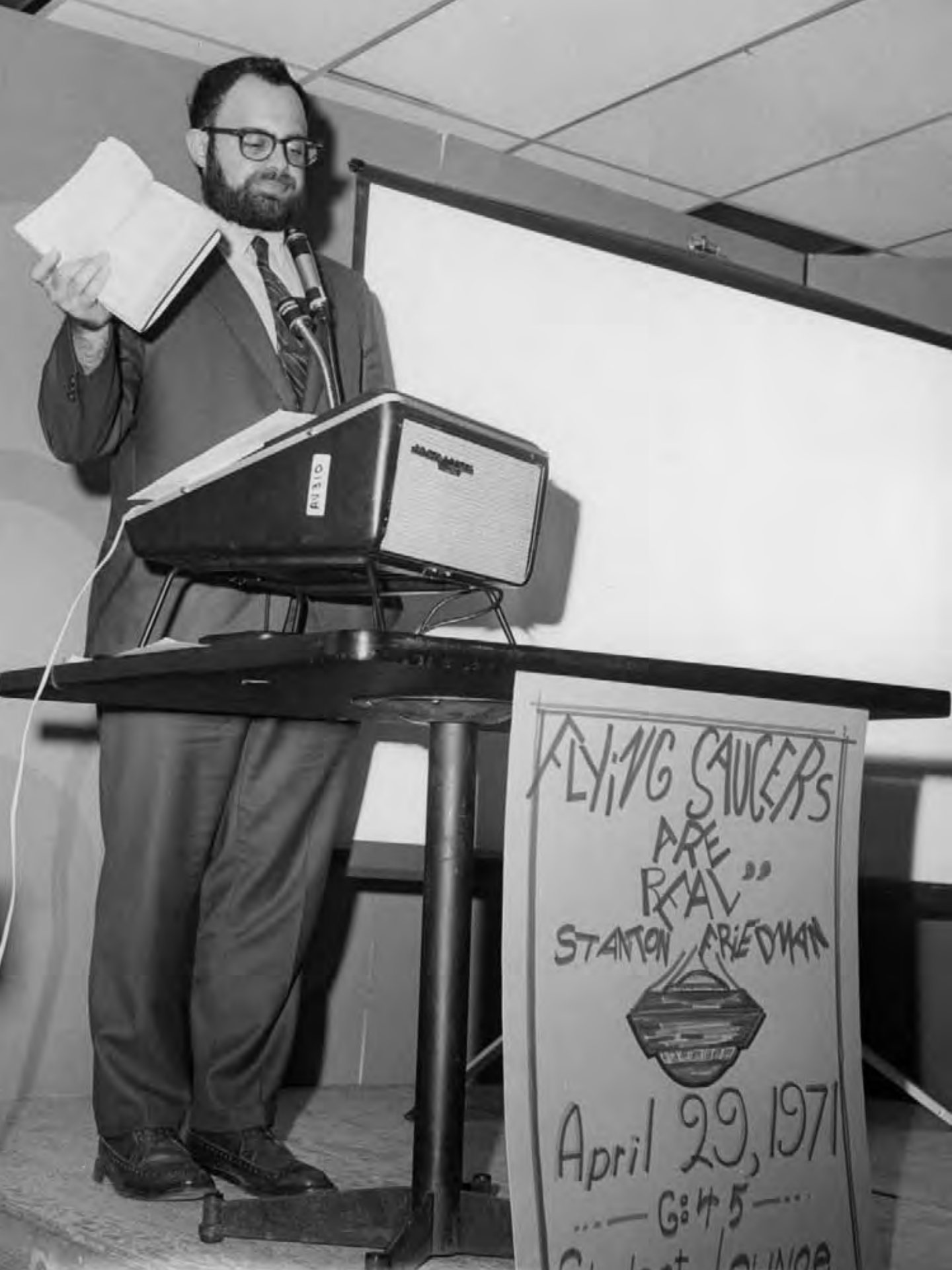
PHOTO COURTESY STANTON FRIEDMAN





APOLLO  
12

Yankee Clipper Sailed With Apollo 12 to November 14, 1969  
October 21, 1969



FLYING SAUCERS  
ARE  
REAL"  
STANTON FRIEDMAN



April 29, 1971

... 6:45 ...

Guest Luncheon



**Early on, Friedman lectured wherever his cold calls opened a door. “I did a lot of student lounges,” he says.**

landed and accompanied it to Wright-Patterson Air Force base. Friedman called Marcel and asked him to share what he remembered from those first few days. After that, the whole story of Roswell started to crack open.

Over the next decade, Friedman and fellow ufologist Bill Norris sought out witness after witness, leapfrogging from one account to another until they had testimony from 62 people, including the rancher’s son and neighbors—by then Brazel was long dead—officers from the air base, and the Army public information officer who wrote the first press release about a “flying disc.” Friedman found Glenn Dennis, the town mortician, who claimed he got a call from the air field, asking about child-sized caskets. “For the aliens,” Friedman explains, whose diminutive bodies would have been thrown from the wreckage. He recalls visiting Dennis in Lincoln, New Mexico, interviewing him amid the celebrations of a Billy the Kid pageant. “I have a tape of him telling me his story, and the mariachi band going in the background.”

Other ufologists followed Friedman’s rediscovery of Roswell, publishing their own books, uncovering other information. The incident took root in the popular imagination. In 1992 the Roswell UFO museum opened, followed four years later by the annual Roswell UFO Festival.

**F**riedman’s audiences may not give him a hard time, but a ufologist’s career isn’t without its skirmishes, and over the decades he has taken on his fair share. He wears his triumphs like badges: the Oxford Union debate where he won 60 percent of the vote, the physics professors he silenced when they tried to sandbag him in front of their students. Friedman sells DVDs of his two-hour “formal debate” against astronomer and retired Air Force pilot James McGaha, and he can recount word-for-word the arguments he’s had with listeners of call-in shows.

His list of antagonists is long. On it are UFO skeptics and UFO frauds, some of whom he has unmasked. He’s disap-

pointed in academic astronomers, who “think they know all there is to know” about interstellar travel, and in reporters who, year after year, fail to examine the “cosmic Watergate” of the government’s UFO cover-up. Friedman calls the SETI Institute, which listens for radio signals from outer space, the “silly effort to investigate,” because, he says, aliens wouldn’t contact us with antique radio technology. He’s still vexed with physics classmate Carl Sagan, AB’54, SB’55, SM’56, PhD’60, for refusing to give credence to UFOs. Friedman liked Sagan; the two corresponded, and Friedman visited him a few years before he died. But Sagan’s attitude bothers him to this day. “The reliable cases are uninteresting,” Sagan wrote of UFO sightings, “and the interesting cases are unreliable.” Says Friedman, “That’s just totally false.”

One spat with skeptic Phil Klass involved a bet over the typography of Truman-era classified memos. It ended with Friedman publishing in his first book a photocopy of the \$1,000 check Klass wrote after losing. Later, when Friedman moved to Canada, Klass wrote to the National Research Council in Ottawa to warn them of his arrival and of the “half-truths and falsehoods” in his work. “Like wrestling with an octopus,” Klass wrote, “when you manage to pin down one leg, the other seven are still thrashing about.”

The “debunkers,” as Friedman calls them, growling out each syllable with disdain, have never shaken him with a question he couldn’t rebut using the facts and figures in his head or the avalanche of documents in his study. Among the debris is a black-and-white photo taken a couple of years after he went on the road full time. A 36-year-old Friedman stands on a riser behind a tabletop lectern, a microphone at his chin and a projector screen to his left. The hand-drawn sign at his feet reads: “Flying Saucers ARE Real, Stanton Friedman, April 29, 1971, 6:45, Student Lounge.” His suit hangs baggy at the knees, and a tie clip holds a striped necktie to his shirt. As he gazes down at his notes, you can see, behind his beard, the hint of a smile. He looks as if he is just about to speak.

“Facts in hand before mouth in gear.” That’s Friedman’s ethos. Of all of the catchphrases he’s invented over the years—and there are many—it’s the one he tries hardest to live by. In 2001, decades after challenging his fifth-grade teacher on the motion of the solar system, Friedman returned to Linden for his 50th high school reunion. An old friend mentioned that Mrs. Gutkin still came to synagogue. Friedman’s eyes widened. Here was a chance to see her again, to tell her the story that for years he’d been telling everyone else, about how his life was changed that day, how he learned the value of facts in hand—how, all those years ago, he’d been right. “So I went to the temple for old time’s sake,” he says. He found Mrs. Gutkin, by then in her 80s, and he told her the whole story. She didn’t remember him, but that didn’t matter. “I needed to tell her,” he says, “that she had inspired me to go for the facts. Always to go for the facts.” ♦

## HE’S STILL VEXED WITH CLASSMATE CARL SAGAN FOR HIS REFUSAL TO GIVE CREDENCE TO UFO SIGHTINGS.

PHOTO COURTESY STANTON FRIEDMAN



Alzheimer's has erased the stories behind Lou Foucher's images, but his photographs of a demolished West Side neighborhood have stirred memories in former residents.

photography

# LOST & FOUND

BY JASON KELLY  
PHOTOGRAPHY BY LOU FOURCHER, PHD '71



**Lou Furcher**, PhD '71, came to Chicago from a Massachusetts fishing village, by way of Maine's Bowdoin College, to study psychology. He wanted to see inside people, to understand the forces that shaped them. His curiosity extended beyond his own cultural experience: as an undergraduate in the mid-1960s, Furcher spent a semester at Atlanta's historically black Morehouse College.

In 1971 he took his interest in people and his Pentax 35 mm camera into Chicago's Near West Side neighborhood known as the Valley. Now the area encompasses the Illinois Medical District, the site of the new Cook County Hospital, Rush University Medical Center, and the University of Illinois at Chicago health-sciences campus. Before the medical development displaced many residents, the Valley was a vibrant, if troubled, neighborhood. Flamboyant neon, polyester fashions, and static-electric Afros date Furcher's images of the vanished community, yet they feel like the present tense. "Because they show soul," says his son Mike Furcher.

That's what Lou Furcher went looking for with his camera. While working for UIC's Valley Project, which included a health clinic, he befriended a gang member whose protection gave him access to parts of the neighborhood where he otherwise might not have been welcome. "My dad described this guy walking around showing his gun to people," Mike Furcher says. He also captured candid and intimate moments in private homes. "I don't know how my father managed to be a part of these people's lives."

Now suffering from Alzheimer's and living in a Rogers Park facility, the 68-year-old Furcher no longer remembers many details about the people from the Valley—and even when he did, he didn't talk much about them. He still has some images framed on his wall and recognizes them as his work, but the disease has robbed him of the details. Last winter Mike Furcher, the publisher of two online North Side publications, the *Center*

*Square Journal* and *Roscoe View Journal*, turned to technology to help satisfy his curiosity about the photos.

Scanning 300 slides that filled three carousels in a basement closet, he created a public Flickr stream. Almost 6,000 page views later, he has accumulated colorful nuggets in the form of online comments, and he's tapped into nostalgia expressed in emoticons and exclamation points: "omg look at my uncle bunko :)" "What memories!!!"

Former Valley resident Bill Roddy, whose memoir *Manhood from the Hood* (Beaver's Pond Press, 2010) recounts his experiences there, recognized childhood buddies Fat Jaw, Chuckie, and Mickie Williams clowning for the camera in a few shots. In another, Roddy identified his friend Jerry McDonald leaning against a graffiti-sprayed wall. "We were young 'pool sharks' at the Y," Roddy writes under his Flickr handle M\_Sin-cerely. "We both use to 'run' the tables after school. The older youth and adults hated us because we were very good at shooting pool at a very young age."

There are photos of the adults playing pool on a duct-taped table beneath sketches of Martin Luther King Jr., Thurgood Marshall, and Sidney Poitier. Others show men hanging out on stoops and street corners or kids playing baseball, riding bikes, swinging at a playground. Shops, bars, churches—the Sunrise Grocery, the Washburne Lounge, the Timmons Holy Temple—all have scissor gates protecting their windows and doors. Boarded-up buildings and brick walls spray painted with true love and gang messages pock the landscape. Behind a fence, a menacing snout looms above a sign that reads, "Beware of Bad-Dog."

Amid the blight, bright life shines. Groups of kids play on porches, in vacant lots, in alleys. High-school-age girls preen for the camera. Another group of girls waits for a bus at a Roosevelt Road stop, resplendent in bright red, yellow, and blue coats. A commenter on Furcher's Flickr stream speculates that they probably attended Simpson High School, where pregnant girls were sent. "And if you take a look, they're pregnant," says Furcher, who hadn't noticed that before.

Other details are hard to miss, like the YMCA



**Lou Furcher's self-portrait in 1981, a decade after he photographed the Valley.**

employee in red, white, and blue striped pants and an American flag hat. Or, Furcher notes, "the young woman who is clearly trying to be all sexy, but her outfit just makes her look like Santa Claus. What's that all about?"

Those what-were-we-thinking embarrassments scream 1970s, but a poignant thread runs through the photos. From babies to grandparents, Lou Furcher documented ordinary lives that otherwise could have been lost to history. "It's a neighborhood that no longer exists," Mike Furcher says, "and a neighborhood where people really didn't have the means to take a lot of pictures."

The photos have gotten the old neighbors reminiscing about people and places—the market offering five loaves of bread for a dollar, the dank interior of Ms. Mary Sweet Shop, the working men who tinkered with their cars to race on the weekends. "My father was always interested in unflinching truth and interested in the soul of people," Mike Furcher says. His psychologist's mind and photographer's eye revealed the soul in the Valley. ♦



**To see all of Lou Furcher's photos from the Valley, visit [magazine.uchicago.edu/furcher](http://magazine.uchicago.edu/furcher).**







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# Picture the possibilities

BY MARGARET OLIN, AB'68, AM'77, PHD'82

She's about to scream; that's the only explanation." Mom's trying to analyze a photograph, or rather a photocopy of one. In it, a baby lies in a crib, arms outstretched. The sallow colors of the reproduction drain the cheerfulness out of her pink dress and blue flowered mattress. Mom is contradicting our pediatrician. He said, "She has cerebral palsy. Many of these children from Third World countries have serious disabilities."

A one-page medical report stapled to the photocopy explains that five-month-old Sheba has had all her immunizations and a test, negative, for AIDS. These two pieces of paper compose the first positive response to the many letters we sent earlier in the fall to adoption agencies. We can sign across the picture and return it to signal our acceptance, but our social worker tells us to show it first to the pediatrician who takes care of our six-year-old son, Ben. "Adopt an American child," the doctor says, sending us away with offers to connect us with right-to-life groups.

Instead of contacting any of them, my husband, Rob, and I go home and stare at our photograph for hours. Her legs and arms stick out like twigs on a snowman. Mom continues: "They put her down to take the picture, and now she's mad." At first only my mother and sister mull this over with us, but then the rest of the extended family joins in, and soon many others voice their theories. Most of us think Sheba should see a doctor in India, and the University's Department of South Asian Languages and Civilizations,

near our home, proves a great resource. Within days I have more recommendations for pediatricians in Hyderabad, India, than in Chicago. Some months pass, and in the winter I finally convince the orphanage to take Sheba to one of them. A ten-page report arrives, certifying the healthy development of a small orphan in every possible respect. The only problem is that the name of the healthy orphan is Rebecca. Soon Rebecca's prospective adoptive parents in Texas have more information than they need. There is, after all, nothing wrong with Rebecca's photograph.

What can a photograph tell us? I must expect a great deal, because in my frustration I rummage through piles of them: photographs of Ben at that age, of myself, of our friends' children. But nothing compares. Once a child can sit up, no more pictures show him lying down. Pictures of American children in families are progress reports; they demonstrate development: "Show us how you can crawl, sweetie!" I pore over photographs of Sheba and the other children in her orphanage. Against the blue mattresses, you can count every limb, every finger: the pictures are inventories.

Spring comes. One day I set off down Chicago's Lake Shore Drive, photocopy settled next to me in the passenger's seat, for an hour's drive to a suburban hospital. There Sheba's photograph and I have a consultation with a neonatologist, whom another friend has found for us. Doctor Caplan, I am told, has an adopted child of his own from South America. We will have a second opinion.

He examines the photograph and the list of inoculations. He

patiently explains what our (by then former) pediatrician saw. He doubts it is cerebral palsy, although that's possible. Sometimes, he says, malnutrition in pregnancy can cause weakness in the legs and make them seem stiff. Often it goes away. Sometimes it doesn't. "But," he adds, smoothing the crumpled edges of the photocopy, "you don't really care, do you?" As he returns the photo, he adds: "She looks alert."

On the long drive home, I ask myself when Rob and I became the parents of a photograph. The moment came, I think, before the photograph did, during a telephone call from an adoption agency. A baby girl named Sheba was available in Hyderabad. "Shall we send you her picture?" The photocopy that arrived soon afterward has served ever since as a material token to stand in for the absence of a girl whose mother I have been ever since I first heard her name. It is a placeholder to introduce to the relatives, to take to appointments, to save a spot in our family until Sheba, its namesake, arrives.

It is lucky that I know this now, because although we sign our photocopy the next day, and soon receive the original snapshot in the mail, the rest of the process will take an entire box of staples and the help of many: senators, State Department officials, and other adoptive parents including Rebecca's, with whom late-night phone calls will have made us long-distance friends. More than two years will pass before Rob, Ben, and I sit in the office of an orphanage in Hyderabad, facing a door through which a long-awaited caregiver leads a three-and-a-half-year-old girl. "She doesn't look much like her picture," our son comments.

That was 15 years ago. It did indeed take years before Sheba walked very much. She preferred to skip and twirl, run and dance. She could be lethal with a soccer ball, as many of our family snapshots show. Soon she will leave for college, and we will treasure those photographs. ♦

**Margaret Olin is a senior research scholar at Yale Divinity School and the author of *Touching Photographs* (University of Chicago Press, forthcoming).**

## NOTES

### IN DEFENSE OF CHILDREN

In September the Family Defense Fund honors **Carolyn Kubitschek**, JD'73, an expert in family and child welfare law, for her "achievements advancing the rights of children and families in the child-protection system." In 1981 the New York City attorney filed the first case that established a foster child's constitutional right to be protected from abuse in a foster home.

### GUN, INTERRUPTED

Anticrime organization CeaseFire, founded by **Gary Slutkin**, MD'75, is the subject of a 2011 Kartemquin Films documentary, *The Interrupters*. (Kartemquin was started in the 1960s by **Gordon Quinn**, AB'65; **Stan Karter**, X'66; and **Jerry Terner**, AB'57.) Filmmakers Steve James and Alex Kotlowitz follow three Chicago "violence interrupters," former gang members who work with CeaseFire to help prevent violence in the city. The interrupters attempt to stop retaliatory shootings and to break up fights they see starting among gang members.

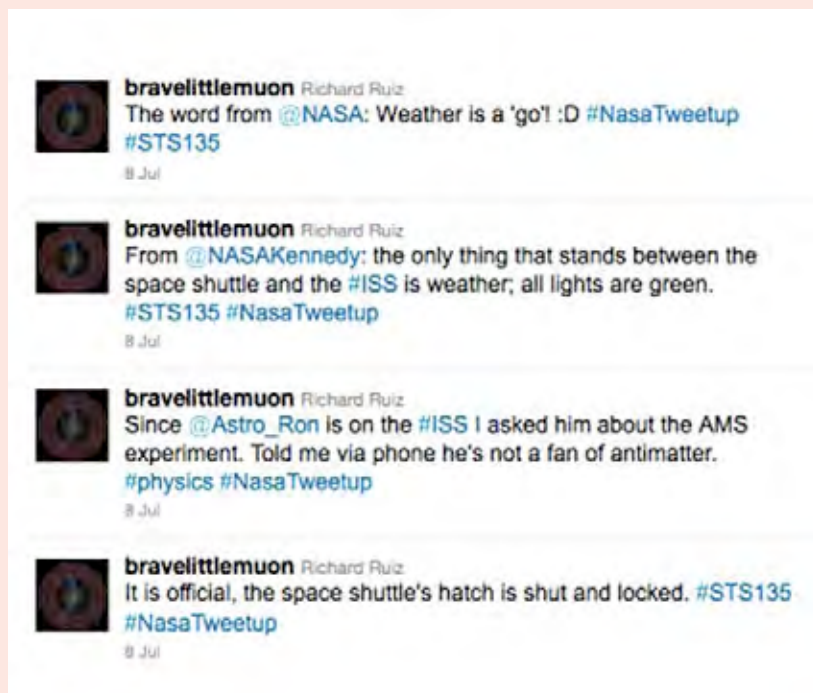
### THIS ALUMNA WON JEOPARDY!

In May **Monica Iyer**, AB'06, a law clerk for magistrate judge Ronald L. Ellis of the US District Court for the Southern District of New York, won \$32,000 as a contestant on *Jeopardy!* In addition



**Monica "Barracuda" Iyer appears on *Jeopardy!***

PHOTO COURTESY THEJEOPARDYFAN.COM



### TWEETING THE FLEET

For NASA's final space shuttle launch July 8, **Richard Ruiz**, AB'10 (aka @bravelittlemuon), was there to live tweet the event from the Kennedy Space Center. For the last several shuttle and rocket launches, NASA invited a select number of bloggers and tweeters to cover the events as a form of public outreach. For more, see page 88.

to her earning a one-time *Jeopardy!* champion title, host Alex Trebek gave her the nickname "Barracuda."

### PROTECT AND SERVE

In July President Barack Obama nominated **Richard Cordray**, JD'86, former Ohio attorney general, to direct the new Consumer Financial Protection Bureau, created in 2010 as part of the law that overhauled banking regulations. Cordray currently works as the bureau's chief enforcement officer. Trivia: He is also a five-time *Jeopardy!* winner.

### CITY SYSTEMS

In fall 2011 economist **Paul Romer**, SB'77, PhD'83, joined New York University's Stern School of Business. An expert in how technology contributes to economic growth, he also leads Stern's Urban Systems Project, which the school launched with a \$10 million gift. Cities "are the modules of the

modern world," Romer wrote in a planning document. "Externally, they connect via such standardized interfaces as the shipping container, the airplane, the Internet. Internally, they can be diverse, experimental, and innovative. As they respond to technological and environmental change, new and restructured cities will be our most important source of social progress."

### DIGITAL ELITE

After serving as head of the Chicago Police Department's Predictive Analytics Group, in April **Brett Goldstein**, SM'05, became Chicago Mayor Rahm Emanuel's chief data officer as a part of the mayor's office's new information technology department. In the role, Goldstein promotes open access to government data, listing online information such as employee salaries, building permits, fire station locations, towed vehicles, and crime reports.



## RELEASES

*The Magazine publishes a selection of general-interest books, films, and albums by alumni. For additional alumni releases, see “In Their Own Words” at [magazine.uchicago.edu/books](http://magazine.uchicago.edu/books).*

### HOUSE SIGNS AND COLLEGIATE FUN: SEX, RACE, AND FAITH IN A COLLEGE TOWN

By Chaise LaDousa, AB’92; Indiana University Press, 2011.

Anthropologist and linguist **Chaise LaDousa** studies how undergraduates in the college town of Oxford, OH, imagine and reflect on partying—which mostly consists of alcohol, sex, and drugs. He focuses specifically on more than 200 off-campus house signs at Miami University of Ohio, where LaDousa was a visiting professor from 2000 to 2003. The signs bear names such as “Boot ’N Rally” and “Hot Box” and have been a part of student life at the university since the 1970s.

### KEEPING YOUR CHILD IN MIND: OVERCOMING DEFIANCE, TANTRUMS, AND OTHER EVERYDAY BEHAVIOR PROBLEMS BY SEEING THE WORLD THROUGH YOUR CHILD’S EYES

By Claudia M. Gold, AB’83, MD’87; Da Capo Lifelong Books, 2011.

Children’s behavioral problems, says pediatrician **Claudia Gold**, are symptoms of disruptions in relationships. From her 20 years of working with children, she argues that the most effective method of managing excessive crying and explosive outbursts is by strengthening the emotional relationships between parent and child. Sharing stories from personal experience, Gold shows parents “how to be with a child,” validating his emotions so that he can eventually manage those emotions on his own.

### THE AMERICAN ACADEMIC PROFESSION: TRANSFORMATION IN CONTEMPORARY HIGHER EDUCATION

Edited by Joseph C. Hermanowicz, AB’90, AM’93, PhD’96; Johns Hopkins University Press, 2011.

In a compilation of essays—most presented at a 2008 University of Georgia conference—contributors examine how the academic profession has evolved. Many of the essays address the eroding position of tenured professors at the undergraduate level. One contributor, for example, imagines a new system emerging in which the majority of academic appointments are non-tenure-track, full-time hires.

### TRAFFIC STOP

By Janet Ruth Heller, PhD’87; Finishing Line Press, 2011.

Written over four decades, this poetry collection from **Janet Ruth Heller**—who won national awards for her 2006 children’s book *How the Moon Regained Her Shape* (Sylvan Dell)—draws from her experiences during the anti-Vietnam War movement; as an entertainer, writer, and artist; and mourning her father’s death.

### THE INVENTION OF MARKET FREEDOM

By Eric MacGilvray, AM’95, PhD’99; Cambridge University Press, 2011.

Examining the modern rise of market freedom, political scientist **Eric MacGilvray** argues that the notion of individuals’ unregulated economic behavior was invented, displacing a classical tradition of republican thought in which freedom meant collective political self-determination, free from dependence on another’s will. He also explores the ethics of freedom and how the language around it—“liberty” as an absence of constraint—shapes and distorts our contemporary conception of politics.

### THE SPORT OF KINGS AND THE KINGS OF CRIME: HORSE RACING, POLITICS, AND ORGANIZED CRIME IN NEW YORK, 1865–1913

By Steven A. Riess, AM’69, PhD’74; Syracuse University Press, 2011. Thoroughbred horse racing thrived from the mid 19th century until the early 20th century, largely through its gambling connection. **Steven Riess** chronicles the sport’s history—during its early period, the New York metropolitan area was the national capital—and the politics that allowed horse racing to continue despite illegal practices.

### THE CONSTITUTIONAL RIGHTS OF CHILDREN: IN RE GAULT AND JUVENILE JUSTICE

By David S. Tanenhaus, AM’91, PhD’97; University Press of Kansas, 2011.

A 1967 Supreme Court case marked one of the most important children’s-rights cases of the 20th century, granting children some of the same rights as adults. After 15-year-old Gerald Gault was arrested by Globe, Arizona, police for making an obscene phone call, he was sentenced to six years in juvenile detention, much harsher than an adult punishment for the same crime. The extreme sentence inspired the ACLU to take the case to the Supreme Court. **David Tanenhaus** explores the case and its legacy.

### I FEEL SO GOOD: THE LIFE AND TIMES OF BIG BILL BROONZY

By Bob Riesman, AM’88; University of Chicago Press, 2011.

**Bob Riesman**’s biography of the early 20th-century Chicago blues star follows his personal life and career, with stories of his performances in jazz clubs and concert halls. His life is also recounted through interviews with Eric Clapton, Pete Townshend, and Ray Davies, who discuss how Broonzy inspired their music.



# ALUMNI NEWS

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# DEATHS

## FACULTY AND STAFF

**Vijay S. Dayal**, professor emeritus of surgery, died June 30 in Chicago. He was 74. An expert in hearing and balance diseases, Dayal taught at the University of Toronto before joining Chicago's surgery department in 1986. As director of neuro-otology, he created a special rotating chair to diagnose balance issues and patented an artificial voice box. Recipient of the University of Chicago Medical and Biological Sciences Alumni Association's 2007 Gold Key Award, Dayal wrote and illustrated the text *Clinical Otolaryngology*, first published in 1981. He is survived by his wife, Sheela; two daughters, including **Anjali Dayal**, AB'88; son **Amit Dayal**, U-High'88; and two grandchildren.

**Paul Meier**, the Ralph and Mary Otis Isham distinguished service professor emeritus of statistics, pharmacological and physiological sciences, medicine, and the College, died August 7 in New York City. He was 87. A cofounder of the Kaplan-Meier estimator, a statistical method that estimates survival rates in clinical trial data, Meier joined the Chicago faculty in 1957. In his 35 years at the University, he chaired the statistics department for more than a decade. After retiring as professor emeritus in 1992, Meier joined Columbia University as head of its biostatistics division. Named the 1986 Statistician of the Year from the American Statistical Association's Chicago chapter and recipient of its 2004 Samuel Wilks Award for his contributions, Meier also was a founding member of the Society for Clinical Trials. He is survived by his wife, Louise; three daughters, **Diane E. Meier**, U-High'69, **Karen E. Meier**, U-High'72, and **Joan Susan Meier**, U-High'75, JD'83; and five grandchildren.

**James B. Nachman**, a professor of pediatrics, died from a suspected heart attack on a rafting trip in the Grand Canyon June 10. He was 62. A childhood-cancer specialist, he led studies that improved the survival rates of young leukemia patients and helped develop a treatment regimen for acute lymphoblastic leukemia. Nachman joined Chicago as an assistant professor in 1980 and became a professor in 1999. Survivors include his father, **Adolph R. Nachman**, SB'32, MD'36; brother **Robert Nachman**, AM'73; and a sister.

**William Sumner**, director emeritus of the Oriental Institute, died July 7 in Columbus, OH. He was 82. An expert on ancient Iran, Sumner served in the Navy and retired as lieutenant commander before joining Ohio State University. From 1972 to 1978, he directed the University of Pennsylvania's excavations at the Tal-i Malyan site in western Iran, overseeing the publication of a monograph series based on

five seasons of fieldwork there. In 1989 he came to Chicago as a professor of Near Eastern languages and civilizations and director of the Oriental Institute, where he headed its largest building expansion. Sumner retired in 1997. He is survived by his wife, Kathleen; a daughter; a son; two stepchildren; a sister; seven grandchildren; and five great-grandchildren.

## 1930s

**Milton Sills**, PhD'31, JD'32, died May 31 in Hayward, CA. He was 101. Sills began his law practice in Illinois before moving to Hayward in 1950. There he launched a practice with his brother, who died in 1968. Sills ran the office until his early-1990s retirement. Survivors include a sister and three nieces.

**Miriam Bazelon Knox**, X'36, died May 21 in Washington, DC. She was 96. The first female president of the Jewish Social Service Agency in the 1950s and '60s, Knox later helped launch the Head Start preschool program and was a Peace Corps recruitment consultant. Knox was an honorary trustee of Washington's David L. Bazelon Center for Mental Health Law, named for her first husband. She is survived by her husband, Robert; two sons; a stepdaughter; a sister; four granddaughters; and six great-grandchildren.

**Carl Marcus Olson**, PhD'36, a chemist and physicist, died May 16 in Solomons, MD. He was 99. During WW II Olson worked on the Manhattan Project. Later, as a researcher at the DuPont Company, he discovered how to produce hyperpure silicon in quantity, which led the company to develop semiconductor technology. Olson directed DuPont's Experimental Station pigment department for 18 years before retiring in 1971. Survivors include a daughter, a son, and a granddaughter.

**Lloyd G. Lewis**, SB'39, PhD'46, a physicist, died March 8 in Madison, WI. He was 93. Lewis taught physics at Princeton and was a research scientist at Standard Oil before joining Argonne National Laboratory as a senior physicist. Holder of eight patents, he designed and built a digital computer control for nuclear accelerators. He is survived by his wife, Elizabeth; four children, including **Perry Lewis**, AB'75; four grandchildren; and a great-grandson.

## 1940s

**Nicholas Helburn**, AB'40, died June 11 in Boulder, CO. He was 92. Helburn launched the earth-sciences department at Montana State College, directed the National Science Foundation's High School Geography Project, and chaired the University of Colorado's geography department. A former president of the Association of American

Geographers, he helped run an organic-gardening community for 34 years. He was predeceased by his first wife, Tess Loth Helburn, AB'38. He is survived by his wife, Suzanne; two sons; a stepdaughter; and six grandchildren.

**Maurice M. Tennant**, SB'40, an anesthesiologist, died June 17 in Olympia Fields, IL. He was 92. An Army veteran, Tennant worked at Oak Lawn's Christ Hospital for more than 30 years. His first wife, Helen (Isenberg) Tennant, AB'41, AM'42, died in 1984. He is survived by his wife, Bernetta; a daughter; two sons; three stepchildren; seven grandchildren; and two step-grandchildren.

**George Cotsirilos**, AB'41, LLB'42, a defense attorney, died March 27 in Chicago. He was 90. A WW II veteran, Cotsirilos worked in the Cook County state's attorney's office, founded two law firms, and taught at John Marshall Law School. A regent with the American College of Trial Lawyers, he was an inaugural member of the Illinois Supreme Court's Registration and Disciplinary Commission. He is survived by his wife, Joan; a daughter; two sons; four stepchildren; sister **Betty Angelos**, PhD'46, SB'47; and eight grandchildren.

**Harriet Field Augustus Swanson**, AB'41, died March 19 in Chicago. She was 91. After working for the Chicago Public Library, Swanson spent more than 20 years teaching in the Chicago Public Schools. Survivors include her daughter, **Abigail Swanson**, U-High'72; a son; and three grandchildren.

**Robert L. Meyer**, AB'42, died March 24 in Chicago. He was 90. A WW II and Korean War veteran, Meyer was editorial director of the National Safety Council. He is survived by his wife, **Catherine (Leinen) Meyer**, PhD'47; two daughters, including **Cathy Luchins**, MD'85; and two grandchildren, including **Kerith Luchins**, U-High'00, and **Matt Luchins**, U-High'10.

**Morris B. Parloff**, AM'42, a psychiatrist, died April 2 in Teaneck, NJ. He was 92. After serving in WW II, Parloff spent three decades with the National Institute of Mental Health, where he rose to branch chief. In retirement he had a private practice and taught at American University in Washington, DC. Recipient of the Public Health Service Superior Service Award, Parloff was a past president of the Society for Psychotherapy Research. He is survived by his wife, **Gloria Harnick Parloff**, SB'43; two sons; and a grandson.

**Jerome "Jerry" P. Scheidler**, AB'43, MBA'47, died April 3 in Fishers, IN. He was 89. A WW II veteran, Scheidler worked in marketing at Eli Lilly until his 1985 retirement. Survivors include a daughter, four sons, 18 grandchildren, and two great-grandchildren.

**Shirley DoBos Patterson**, SB'43, died June 9 in Bethesda, MD. She was 88. She was a child-health and family-planning specialist for the US Public Health Service, a

central program officer for the American Revolution Bicentennial Commission, and a senior staff member with the US Agency for International Development. Patterson later worked for the National Park Service, writing its 1979 National Recreation Plan. She is survived by her husband, **Bradley Patterson**, AB'42, AM'43; a daughter; three sons, **Bruce Patterson**, AB'70, **Glenn Patterson**, AB'72, and **Brian Patterson**, AB'83; ten grandchildren; and five great-grandchildren.

**James T. Pritchett**, SB'44, an Emmy Award-winning actor, died March 15 in New York City. He was 88. A WW II veteran, Pritchett practiced law before starting an acting career that led to 20 years on the NBC soap opera *The Doctors* as Dr. Matt Powers. He also appeared in Broadway productions of *Sail Away* and *Two for the Seesaw*. He is survived by his wife, Cynthia; two daughters; a son; and three grandchildren.

**Marjorie (Penniman) Kaplan**, AB'45, AM'54, died April 16 in Marshfield, WI. She was 88. Kaplan taught elementary school and worked in economic development at Ford Motor Company before teaching English composition at Purdue University. Survivors include her daughter, **Katherine Kaplan**, AB'76; a son; five grandchildren; and two great-grandchildren.

**Ruth Janet (Oostmeyer) Servies**, AB'45, died May 11 in Pensacola, FL. She was 85. A registered nurse, she worked at Sacred Heart Hospital. Survivors include a daughter, two sons, seven grandchildren, and three great-grandchildren.

**Carol Yeomans Farwell**, PhB'46, died July 15 in Ephraim, WI. She was 85. With her husband, **Robert L. Farwell**, JD'49, she lived in Chicago; Door County, WI; and Santa Fe, NM, where she volunteered for several causes. In 1965 she marched with Martin Luther King Jr. in Selma, AL, to fight racial segregation. She also played piano and sang. Survivors include her husband, two daughters, two sons, and eight grandchildren.

**Herbert C. Kriesel**, X'47, died April 17 in Manassas, VA. He was 95. A WW II veteran, Kriesel did economic research for the US Department of Agriculture, the US Agency for International Development, and the Ford Foundation. He also was an agricultural economist at Michigan State University. In 1982 he started a second career as an agent with Lutheran Brotherhood Insurance. He is survived by his wife, LaVonne; three daughters; a son; four brothers; two sisters; eight grandchildren; and eight great-grandchildren.

**Richard Lieber**, AB'47, died March 30 in Carmel, IN. He was 88. A WW II veteran, Lieber directed the band at Hamilton Southeastern High School until his 1984 retirement. Survivors include a daughter, three sons, and two grandchildren.

**Lore (Weinberg) Ostwald**, AM'47, of Swarthmore, PA, died May 14, 2010. She

was 86. A psychiatric social worker who worked with developmentally disabled and autistic children, Ostwald also was an art-history scholar. Her husband, **Martin Ostwald**, AM'48, died April 10, 2010 (see below—*Ed.*). She is survived by two sons, including **David Ostwald**, AB'77, and three grandchildren.

**Maxine (Schwartz) Slomka**, AB'47, died April 18 in Half Moon Bay, CA. She was 82. A past president of the Newcomers Club of San Mateo County, she also designed jewelry. She is survived by her husband, Steven, and two daughters.

**Charles L. Stewart**, JD'47, died May 17 in Northbrook, IL. He was 91. Serving in the Office of Strategic Services's research and analysis branch during WW II, Stewart later became a partner at law firm Mayer Brown. He then served as corporate secretary and general counsel for Hartmarx Corporation. In retirement he volunteered as an arbitrator with the Circuit Court of Cook County. He is survived by his wife, Edalee; a daughter; three sons; nine grandchildren; and six great-grandchildren.

**Elizabeth (Ferwerda) Fox**, PhB'48, of Chelsea, MI, died July 5. She was 87. After her husband, **Winslow Fox**, SB'45, MD'48, finished his medical internship, the couple moved to Puerto Rico, where she befriended many of her neighbors. After moving to Michigan, Fox became involved with Ann Arbor's International Neighbors, taking in visitors from around the world for weeks or months. She is survived by her husband, four daughters, seven grandchildren, and two great-grandchildren.

**Roscoe "Rusty" Hankin**, MBA'48, died May 30 in Cranbury, NJ. He was 86. A WW II veteran, Hankin worked for J. C. Penney Company. He is survived by his wife, Marjorie; three daughters; and five grandchildren.

**Wesley Keith Lind**, SB'48, died May 13 in St. Joseph, MI. He was 88. Lind spent nearly two decades as a chemist at Paint Research and McCrone Associates before teaching chemistry and physics at Bloom Township High School. He retired in 1984 and became assistant treasurer for Chikaming Township. He is survived by his wife, Inga; three daughters, including **Diane Fenster**, MD'78; a sister; and three grandchildren.

**Martin Ostwald**, AM'48, a professor emeritus of classics, died April 10, 2010, in Swarthmore, PA. He was 88. A concentration camp survivor, Ostwald taught classics at Columbia University before joining Swarthmore College, where he stayed for more than 30 years. His 1989 book, *From Popular Sovereignty to the Sovereignty of Law: Law, Society, and Politics in Fifth-Century Athens* (University of California Press), won the 1990 Goodwin Award of Merit from the American Philological Association. A member of the American Academy of Arts and Sciences, Ostwald was longtime editor of the journal *Cam-*

*bridge Ancient History*. His wife, **Lore (Weinberg) Ostwald**, AM'47, died May 14, 2010 (see above—*Ed.*). He is survived by two sons, including **David Ostwald**, AB'77, and three grandchildren.

**Edward F. Wilt Jr.**, U-High'43, PhB'48, SB'49, MD'53, an internist and gastroenterologist, died June 21 in McHenry, IL. He was 85. A WW II veteran, Wilt taught at the University of Illinois College of Medicine and practiced in McHenry his entire career. The inaugural president of the McHenry County Board of Health, he also served as president of the McHenry County Medical Society and the Illinois Association of Boards of Health. He is survived by his wife, Marie; a daughter; two sons; a brother; a sister; and five grandchildren.

**William L. Gordon**, SM'49, died May 6 in North Haledon, NJ. He was 84. A WW II veteran, Gordon taught at Duke University before joining the National Security Agency as a cryptanalyst. As an engineer at Honeywell during the 1960s, he designed a small business computer. Gordon later founded the Boston Computer Group. He is survived by his wife, Gloria; a daughter; a son; two grandsons; and a great-granddaughter.

**Albert L. Johnson**, AM'49, died June 6 in Southport, NC. He was 92. A WW II veteran, Johnson was a professor and associate dean at the University of North Carolina at Chapel Hill's School of Public Health. He is survived by his companion, Margaret, and a daughter.

## 1950s

**Donald B. Baer**, MBA'51, died March 26 in Burr Ridge, IL. He was 81. Baer spent 40 years at Chicago's Continental Bank, where he was vice president. He is survived by his wife, Betty; two daughters; a son; and four grandchildren.

**Abraham Mort Casson**, PhB'51, died June 6 in Richmond, VA. He was 82. Casson worked on substance-abuse treatment, including a post as the Virginia state assistant mental health commissioner for substance abuse. Survivors include a son and a sister.

**John S. deBeers**, PhD'51, an economist, died May 20, 2009, in Santa Rosa, CA. He was 94. A conscientious objector during WW II, deBeers specialized in Latin American development. After the war, he worked for the Treasury Department's Latin American division until the McCarthy-era Treasury loyalty board cut his staff and denied him a top-secret clearance after an investigation. He resigned in 1955, joining the Government Development Bank of Puerto Rico. Five years later deBeers joined the Inter-American Development Bank, where he worked on Latin American development projects until his 1979 retirement. Survivors include his wife, Jan; two daughters; three grandchildren; two step-grandchildren; and one great-grandson.



**Kenneth K. Inada**, AM'51, died March 26 in Honolulu. He was 87. A WWII veteran, Inada taught Buddhism at the University of Hawaii for a decade before joining the University of Buffalo in 1969. An expert in East-West comparative philosophy, in 1990 he became the second American in 150 years to receive the Cultural Award from the Japanese Society for the Promotion of Buddhism. He is survived by his wife, Masako, and son **Ernest Inada**, MBA'74.

**Hugh J. Kennedy Jr.**, DB'53, died March 22 in Muskegon, MI. He was 84. A WWII veteran, Kennedy was the longtime president of Goodwill Industries of Muskegon County. Earlier in his career, he served as a Unitarian minister in Alton, IL. Survivors include two daughters, a brother, a sister, and two grandsons.

**Margaret Lyne Moser**, AB'53, died March 25 in Beeville, TX. She was 77. Recipient of the 2003 Bee County Citizen of the Year award, Moser wrote a two-volume history of the county. She also was a trustee emerita of the Joe Barnhart Foundation. Moser is survived by her husband, William; a daughter; three sons; a brother; a sister; six grandchildren; and a great-granddaughter.

**Charles J. Adams**, PhD'55, died March 23 in Mesa, AZ. He was 86. A WWII veteran, Adams taught religion at Princeton and at McGill University, where he was director of the Institute of Islamic Studies for 21 years. He later joined Arizona State University as a professor of Islamic studies. Survivors include a brother.

**Henry H. Finck**, PhD'55, died March 31 in Vilas, NC. He was 85. A WWII veteran, Finck taught anatomy at the University of Pittsburgh's medical school. He is survived by his wife, Paula; two daughters; a son; and six grandchildren.

**Robert A. Heavilin**, AB'55, died February 25 in Bloomfield, CT. He was 75. Heavilin taught middle school in Verona, NJ, for more than 40 years and was a psychology professor at Capital Community College and Central Connecticut State University. He also ran a private marital and family counseling practice. He is survived by his wife, Mary; six daughters; two sons; a sister; and many grandchildren and great-grandchildren.

**John A. Weil**, SM'50, PhD'55, a chemist, died November 17, 2010, in Saskatoon, Saskatchewan, Canada. He was 81. Weil taught at Princeton and was a senior scientist at Argonne National Laboratory before joining the University of Saskatchewan, where he retired as professor emeritus in 1996. An expert in electron paramagnetic resonance spectroscopy, Weil won the Spectroscopy Society of Canada's 2000 Gerhard Herzberg Award. Survivors include a daughter; a son; brother **Claude Weil**, X'56; four grandchildren; and two great-grandchildren.

**William P. M. McNiff**, MBA'58, died April 12 in Tustin, CA. He was 90. After retiring from the Air Force in 1963, McNiff started a second career as a cost accounting

manager in the aerospace industry, working for several aircraft-manufacturing companies including McDonnell Douglas. He retired in 1987. Survivors include four sons, three daughters, ten grandchildren, and two great-grandchildren.

## 1960s

**Lois Adelman Solomon**, AB'60, JD'61, died April 25 in Wilmette, IL. She was 71. A lawyer, Solomon also worked with the New Trier Democrats and was an election judge. Her husband, Arthur Solomon, AB'52, JD'61, died in 2004. She is survived by a daughter; a son; sister **Charlotte Adelman**, AB'59, JD'62; and four grandchildren.

**Shelley C. Stone Jr.**, PhD'60, a professor emeritus of counseling and development, died March 8 in Asheville, NC. He was 82. A Korean War veteran, in 1960 he joined Purdue University, remaining until his 1994 retirement. Author of two textbooks, Stone also was Purdue's assistant dean of the graduate school and associate dean of the education school. Survivors include two sons, two daughters, and six granddaughters.

**George F. Bruder**, JD'63, died June 8 in Cos Cob, CT. He was 73. A public-utility lawyer, Bruder founded Bruder, Gentile & Marcoux in 1976 after working as a staff lawyer for the Federal Power Commission. A past president of the Federal Energy Bar Association, he sat on the Edison Electric Institute's legal committee and was counsel to the board of trustees at St. Andrew's Episcopal School in Potomac, MD. He is survived by his wife, Jean; two daughters; a sister; and two grandchildren.

**Simon K. Chen**, MBA'64, a mechanical engineer, died June 13 in Middleton, WI. He was 85. Former president of Beloit Power and Energy, Chen specialized in diesel-engine development and helped establish exhaust emission standards before launching the consulting firm Power and Energy International in 1979. He also was an adjunct professor at the University of Wisconsin-Madison. Chen is survived by his wife, Rosemary; three daughters; a son; two brothers; two sisters; and nine grandchildren.

**Susan A. (Blessing) McConnell**, AB'64, died May 23 in Glenview, IL. She was 69. McConnell taught math at Glenbrook North High School before teaching confirmation classes at a Mt. Prospect Lutheran church for 17 years. She also was a scout leader for more than 25 years. McConnell is survived by her husband, **John W. McConnell**, SB'64, MAT'66; two daughters; three sons; and eight grandchildren.

**Margaret "Peg" A. Olsen**, U-High'63, AB'67, an expert in fiscal law, died May 10 in Arden, NC. She was 64. Olsen spent more than three decades with the US Department of Defense, serving in the Navy's Office of the General Counsel. She retired in 2003. Survivors include her stepmother

and two brothers, including **James M. Olsen**, U-High'69.

## 1970s

**David Michael Crnic**, AB'70, MD'74, a surgeon, died of pancreatic cancer November 8, 2010, in Coto de Caza, CA. He was 61. Crnic ran a surgical practice at Hoag Memorial Hospital in Newport Beach. He also was a pilot and musician. He is survived by his wife, Sharon; four daughters; a son; and three grandchildren.

**Richard "Rocky" Beach**, MBA'73, died April 18 in New Buffalo, MI. He was 68. A Vietnam veteran, he founded communications company Beach Consulting. He is survived by his wife, Jill, and two sisters.

**Terry D. Keegan**, SM'78, died April 27 in New Orleans. He was 57. Owner and CEO of Keegan Geophysical Company Inc., he was a member of the American Geophysical Union, the Society of Exploratory Geophysicists, and the American Association of Petrochemical Geologists. Survivors include two daughters, a son, his father, two brothers, and four sisters.

**Albert Huckins Meers**, MBA'78, died of a heart attack March 12 while in Florida. He was 63. Meers began his career with the First National Bank of Chicago before moving into real estate with LaSalle Partners. Since 1990 he had been a partner with Broadacre Management Company in Chicago. He is survived by his wife, Kristin; two stepdaughters; and two brothers.

## 1980s

**Patricia Hawkins Jobe**, AM'81, died of a stroke June 23 in Chicago. She was 65. Jobe was a Renaissance historian and a real-estate agent. She served on the University of Chicago Children's Hospital Committee, the U of C Service League, and the Blue Gargoyle. She is survived by her husband, **Thomas Jobe**, MD'69, and a son.

**Sharon C. Walsh**, AM'71, PhD'88, died July 25 in Chicago. She was 69. An English professor for 28 years at Loyola University Chicago, Walsh founded and directed Loyola's Shared Text Project, in which writing faculty work with groups of students around a particular theme or text. Serving for two years as freshman dean of the College of Arts and Sciences, she also published three books on argumentation for composition courses. She is survived by her husband, Richard, and a sister.

## 2010s

**Morgan Buerkett**, '14, died in a private-plane crash July 24 near Rantoul, IL. She was 19. A member of the University's volleyball team and the Delta Gamma sorority, Buerkett graduated in 2010 from St. Thomas More High School in Champaign, IL. Her parents also died in the crash. She is survived by her grandparents and a sister.

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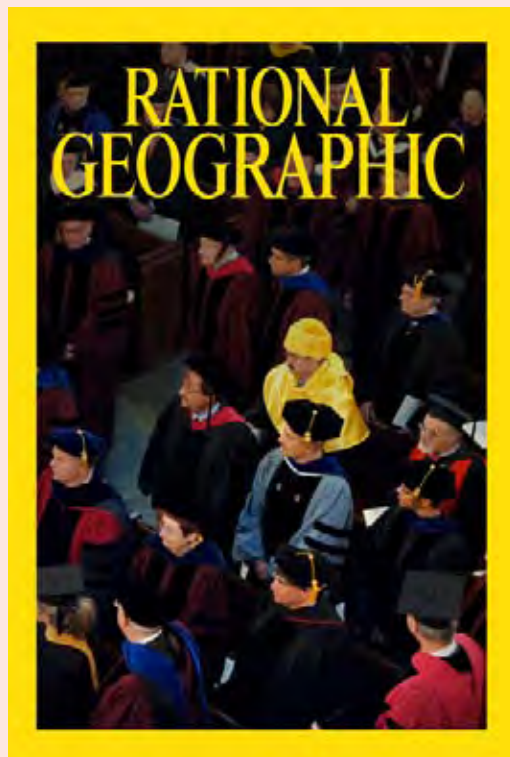
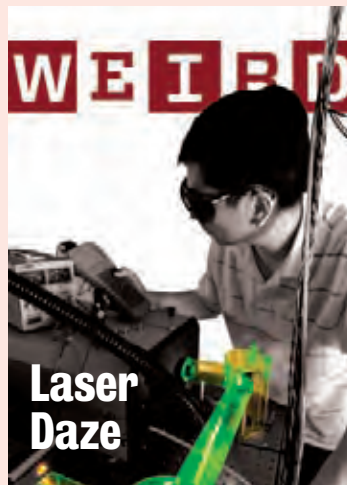
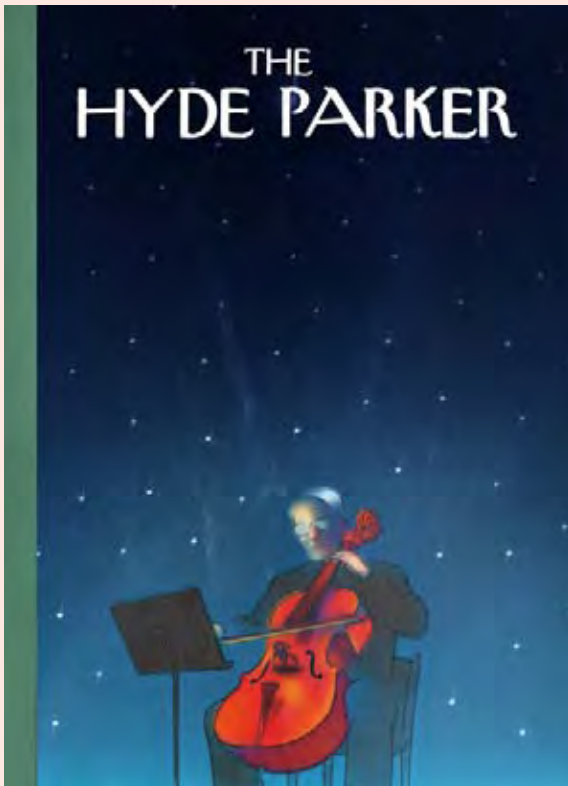
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Comparisons may be odious, but that hasn't stopped readers from comparing the *Magazine* to numerous other publications—whether as a compliment or as an insult. (See Letters for the latest musings in this vein.)

As we worked on the redesign unveiled with this issue, we started making our own comparisons, imagining newsstand titles revamped to emphasize different niches of the University of Chicago reading

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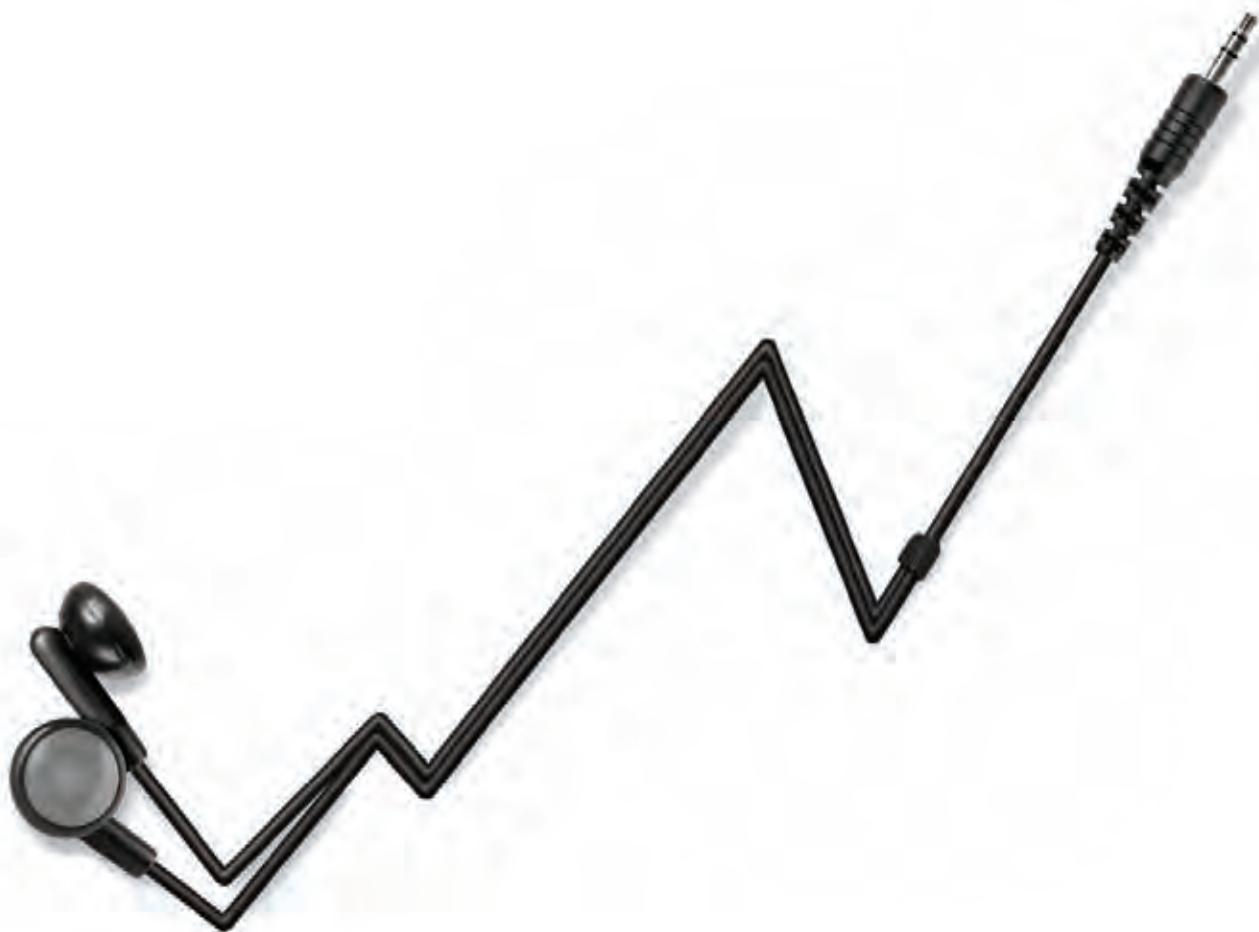
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