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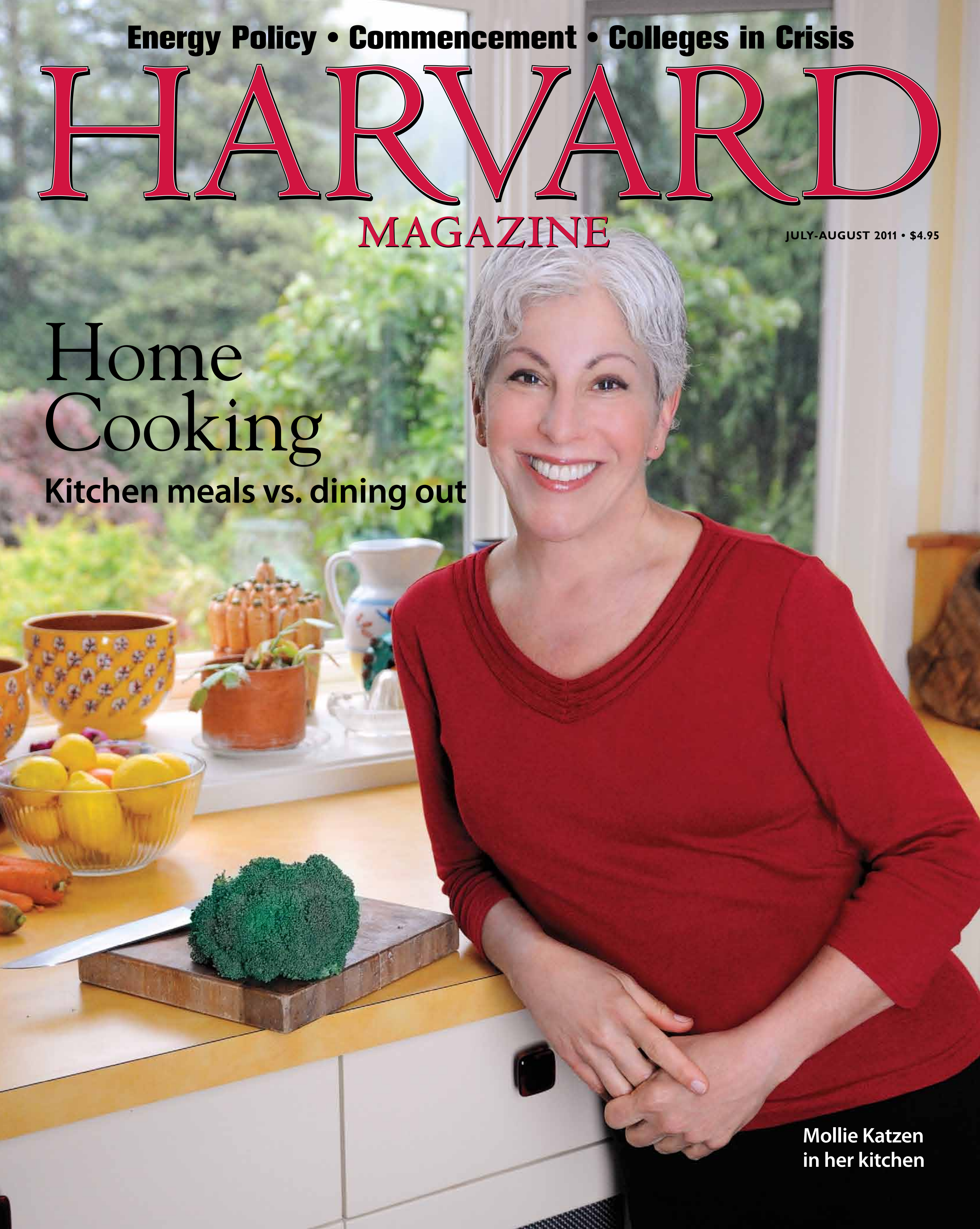

Home Cooking

Kitchen meals vs. dining out

Mollie Katzen in her kitchen


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JULY-AUGUST 2011 VOLUME 113, NUMBER 6

HARVARD MAGAZINE

STU ROSNER

page 44

DEPARTMENTS

On the cover: Photograph by Lisa Keating Photography.com

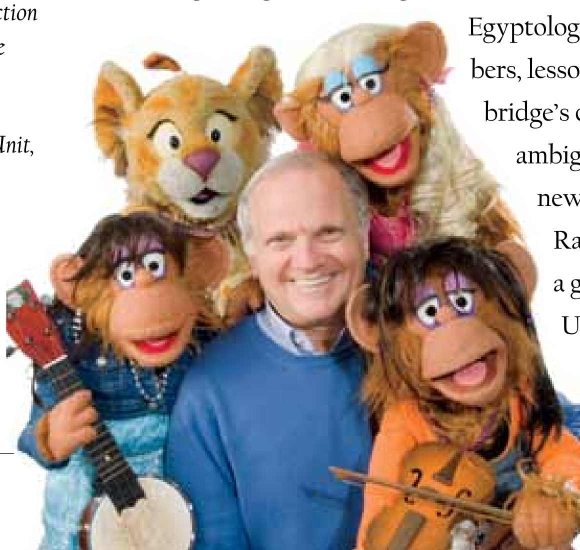
ROBERT NEUBECKER

FEATURES

page 40

DAVID ARNOLD

page 32

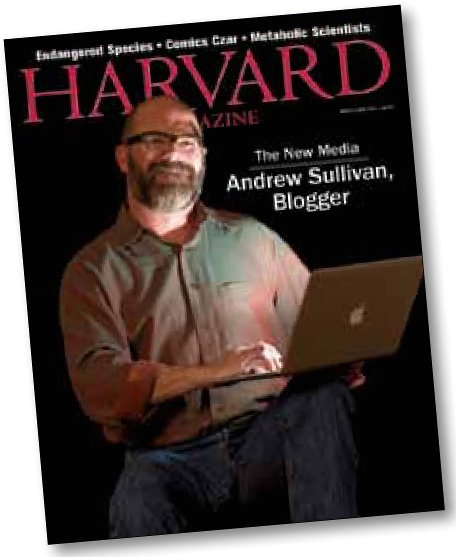


COURTESY OF CHRISTOPHER CERF

page 13

Cambridge 02138

The meaning of life, diabetes, Gandhi, burlesque



BOTHERED BY A BLOGGER

If andrew sullivan can be regarded as even possibly the "World's Best Blogger?" (May-June, page 34), my imagination boggles at how awful the rest must be. His hagiographical profiler writes, "Sullivan's Catholicism didn't allow for situational morality." But Sullivan has been—to be euphemistic—selective in his Catholicism in his personal life. Why should anyone take seriously a self-anointed pundit whose "views are ever-changing and all over the map," who "often goes from one extreme to another," and whose "reasoning" is "as much psychological as political"?

You would have improved the aesthetic quality of the magazine by putting Elise Paschen's picture ["Poetic Paschen," page 22] on your cover. Nothing will improve its intellectual quality beyond the puff-sheet level except a total editorial overhaul.

John Braeman '54
Champaign, Ill.

THE MEANING OF LIFE

I was saddened to read "The Most Important Course?" (The Undergraduate, May-June, page 56) by Madeleine Schwartz, who decried the dearth of student discussions about what was important in life and how to live it. It seems that was all we talked about when I was in college in the early 1960s. We'd meet in cafés, drink black coffee, smoke cigarettes, alas, and no doubt pretended we were Left Bank intellectuals. Getting an education rather than a career was, at that time, considered the purpose of college. Sad to think these discussions have gone the way of parietals.

Carol Delaney, M.T.S. '76
Providence, R.I.

A Note to Readers

In this issue, atypically, there are two Forum essays written by faculty members, drawing on their research and addressing public issues of the day: American energy policy (page 36), and the pressures facing the U.S. higher-education system (page 40). Both seem timely, when the future of the nation—and of many other countries—depends not only on near-term economic issues and longer-term fiscal threats but also on suitable schooling and a sustainable environment. Illuminating the latter priority is the photographic essay by David Arnold '71 that shows the decline of the world's corals as the climate changes (page 32), complementing his "A Melting World," on the shrinkage of glaciers (May-June 2006, page 36); Jonathan Shaw wrote the texts for both articles. We welcome your comments. ~*The Editors*

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Just read the excellent article by Madeleine Schwartz. Her description of students too busy to reflect on the meaning of what they are doing, and their deeper goals in life, is quite troubling. It seems student society has changed a lot since our day, when all-night "bull sessions" about the meaning of life and social issues like civil rights and war were the norm. It's no accident that it turned into a time of political action and rebellion against the status quo.

It seems to me that college has traditionally been a time to think deeply about things. If college students now are too busy getting on with their lives to reflect on society and the world, then who will be prepared to lead? Who will be thinking about the big questions, like building a world economy that preserves the environment, and how to keep our democracy from degenerating into fruitless partisan battling and demagoguery?

John F. Schivell '63, Ph.D. '68
Princeton, N.J.

Editor's note: Dean of freshmen Thomas Dingman, Hobbs professor of cognition and education Howard Gardner, and Gale professor of education Richard Light—the three "architects" of the "Reflecting on your life" sessions for freshmen described in Madeleine Schwartz's column—wrote to note, "We wanted to acknowledge the indispensable role of Katie Steele, director of freshman programming, who has been a partner in the conceptualization of the program and the individual most responsible for putting it into operation."

WILDLIFE, AFOOT AND IN THE YARD

I had the very good fortune as a midcareer professional to enroll in 1989 in the M.D.S. program of the Graduate School of Design (GSD), focusing on "Landscape Planning and Ecology." While I was pleased to see "Throughways for Wildlife" (Right Now, May-June, page 9), I thought it appropriate to share that at least 22 years ago, seminal work at the GSD on wildlife crossings—led by Richard T.T. Forman [now professor of advanced environmental studies in the field of landscape ecology], one of America's preeminent landscape ecologists, and Carl Steinitz [Wiley professor of landscape architecture and planning emeritus]—was a topic of almost daily discussion among a cadre of devotees.

The issues of reconnection of habitat and the safe passage of wildlife—surely measures of global health—were often topics of intense discussion and debate, seeking to elevate landscape ecology from the deep, dark morass of artsy design that too often seemed to inform both process and solution, while almost trivializing essential ecological tenets. The work of Forman and Steinitz in landscape ecology and landscape planning would be a wonderful topic for a future article.

Ted Baker, M.D.S. '90
Miami

Thank you so much for featuring *Honeybee Democracy* (Open Book, May-June, page 16). Your timing is perfect: in 1976, I collected a swarm from a tree branch in the Yard on the morning of Commencement!

Thomas D. Seeley, Ph.D. '78
Professor of neurobiology and behavior, Cornell
Ithaca, N.Y.

METABOLITES AND DIABETES

Your magazine is a great read. However, I feel it is the editor's job to insist that authors clearly make a distinction between diabetes types 1 and 2. In "Fathoming Metabolism" (by Jonathan Shaw, May-June, page 27), professors Gerszten and Wang speak in considerable detail about "diabetes" without telling us which they are targeting. One would hope both are being studied, but expect that they would have quite different metabolomes. In most respects they should not be lumped together.

Frederik Hansen, M.D. '53
Baltimore

Jonathan Shaw responds: Robert Gerszten guesses that there would indeed be metabolic differences between type 1 (juvenile/gestational) and type 2 (adult-onset) diabetes. The patients in this study of a population of middle-aged adults were all adult-onset cases, as the text makes clear.

I was intrigued by the last sentences in the article. In the exercise study, metabolic markers were able to distinguish between the more fit and the less fit, but the fundamental question would be whether metabolomics can explain why some people effortlessly maintain a stable weight throughout adulthood while others with similar lifestyles and dietary habits face a lifelong struggle. The thought that a constant weight simply reflects equal caloric intake and expenditure over days, weeks, or years is simplistic, and we know that metabolic expenditure varies in response to caloric intake. Professor Lewis points out that some people quickly lose weight when they exercise while others cannot, and it has also been shown that an increase in caloric intake over steady-state levels (2,500 calories per day) resulted in weight gain for only some of the study participants. The strength of the metabolome in explaining why some people get fat and others don't is that it encompasses both diet and heredity, and this is the question many of us would love to have answered.

Frank Gump '49, M.D.
Summit, N.J.

ON GANDHI

In his review of Joseph Lelyveld's *Great Soul: Mahatma Gandhi and His Struggle with India* (May-June, page 19), Sugata Bose states that Hermann Kallenbach made "an unsuccessful attempt to enlist Gandhi's support for the Zionist cause. Gandhi consistently supported the rights of Palestinians to their land from 1919…on." Not so fast.

First, it is unclear whether "Palestinians" even existed at this time. Local Arabs generally self-identified as members of clans (one reason for the failure of the local Arab uprising in 1947). George Habash of the rejectionist Popular Front for the Liberation of Palestine bragged that the term "Palestinian people" had been invented, out of whole cloth, to bolster the Arabs' claim on "Palestine." And until 1948 Jews used the term "Palestinian" to define their own culture; I own a book of Hebrew songs from the period, printed in Israel, called *Palestinian Song Book.*

Second, wholly aside from population migrations making "rights" to land irrelevant, the land Jews occupied during Gandhi's time generally was bought by the Jewish Agency—sometimes from absentee landlords, but bought nonetheless. It was not "their [Palestinian] land."

Third, Zionism does not conflict with Palestinian rights to "their land." In fact, in what historian Benny Morris now views as a historic mistake, Israel declined, in the confusion of 1948, to expel all of its Arabs. Those who remained and their descendants live in Israel today, many as citizens. By contrast, Saudi Arabia is officially *Judenrein* [clean of Jews]; nearly all Arab countries expelled their Jews in fact if not in law; and the Palestinian negotiating position—shockingly, accepted by Israel—is that all Jews must leave lands under Palestinian control.

Bose implicitly confirms that from 1919 onward, the "Palestinians" believed that everything east of the Mediterranean was "Palestinian land" on which Jews did not belong. Gandhi evidently agreed.

Orrin Tilevitz '75
Brooklyn

Sugata Bose's review, subtitled "The enigma of Mahatma Gandhi," notes that it took time for Gandhi to shed his racial prejudice against Africans, but fails to note that he never shed his prejudice against Jews. He subscribed to the canard that the Jews killed Jesus, a sin that branded the Jewish People for eternity. He denounced Zionism as depriving Muslims of their rightful claim to Palestine. In the Holocaust, he advised Jews to accept their fate: "I can conceive the necessity of the immolation of hundreds, if not thousands, to appease the hunger of the dictators." In 1946, when it was known that the Germans killed not hundreds or thousands, but 6,000,000 Jews, Gandhi said, "They

William O. Taylor

We note with sadness the death on May 1, at home in Boston, of William O. Taylor '54, chairman emeritus of the *Boston Globe*, where he had served with distinction as publisher. Among his many other pro bono activities, Bill was a member of the Harvard Magazine Incorporated board of directors from 1995 to 2001 (much of that time alongside his classmate, Daniel Steiner '54, LL.B. '58)—a critical period when the forces now transforming publishing and the media took form and accelerated. His early insights into these changes regularly informed the magazine's evolving responses. Even after he was diagnosed with a brain tumor in 2009, Bill remained a magazine incorporator and an informal counselor—roles that we especially remember and value. *~The Editors*

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should have thrown themselves into the sea from cliffs…It would have aroused the world and the people of Germany…As it is they succumbed anyway in their millions."

That is not an "enigma," it's Jew hatred.

Burton Caine, LL.B. '52
Professor of law, Temple University
Philadelphia

I enjoyed sugata bose's thoughtful review and commentary. However, I was surprised that he twice characterized Gandhi's method as "passive resistance" and never used the term "nonviolence." Gandhi's method was the opposite of passive, as the examples in the essay attest. Gandhi once wrote that there are three options when confronted with violence or injustice. The weakest is passivity; stronger than that is violence; most powerful of all is nonviolence (*satyagraha*). It is not merely resistance, but creative action to transform the situation, without violence. This clarification seems essential.

Joel Nigg '80
Portland, Ore.

Sugata bose suggests that Gandhi's relationship with Hermann Kallenbach in the Transvaal during which Gandhi left his wife and shared a bedroom with Kallenbach is of little "relevance" and the same-sex attraction "speculative at best." Irrelevant to what? Informing us that Gandhi had same-sex feelings does not lessen his life or stature. It was an important element in his emotional life. That Bose chooses to denigrate the importance of this chapter in Gandhi's life is his right as a critic, but it should not be his aim as a scholar.

Paul L. Marsolini, M.A.T. '65
New York City

QUOTE-MASTER HARRY LEVIN

Thank you for the wonderful quotes in the May-June issue ("The Quotes Queue," page 6) from my great former professor Harry T. Levin. He was a superb teacher and it was a major honor and pleasure to have also been the assistant in his "Proust, Mann, and Joyce" course. His ironic wit, lexical learning and scholarship, boundless memory, and dazzlingly informative and entertaining lectures were legendary. His friendship, too, was inestimable. But woe unto him who, as I once did, incurred his wrath. Your quotes could be multiplied ad near-infinitum, but I'll limit myself to one, about Gertrude Stein: "Unfortunately for Miss Stein, words have meanings."

John Simon '46, Ph.D. '59
New York City

SPEAK UP, PLEASE

Harvard Magazine welcomes letters on its contents. Please write to "Letters," *Harvard Magazine*, 7 Ware Street, Cambridge 02138, send comments by e-mail to yourturn@harvard.edu, use our website, www.harvardmagazine.com, or fax us at 617-495-0324. Letters may be edited to fit the available space.

POLITICAL PASSIONS, CONTINUED

Editor's note: The letter by Peter McKinney '56 in the March-April issue (page 7), questioning why most Harvard-affiliated members of Congress are Democrats, prompted sharp responses in May-June (page 2) that prompted sharp rejoinders; we offer a sample here. This heat may shed some light on the political divisions in the nation today.

Seven letters responded to McKinney on the unthinking political conformity at Harvard. Two disagreed politely. Five disagreed smugly, asserting the self-flattery that alumni are Democrats because Republicans are stupid, bigoted, evil nitwits. Congratulations for making McKinney's point. I hope at least a few Harvard liberals are thoughtful enough to have been embarrassed by the condescending intolerance.

Eugene Kusmiak '81
Orinda, Calif.

The phrase "herd of independent minds" came to my mind in reading the letters reacting to comments by Peter McKinney.

Most of the letters harp on the same litany of half-truths and out-and-out absurdities about Republicans as a way of explaining why no self-respecting Harvard grad would have anything to do with such conservatives. Writers focused on two specifics above all: Conservatives and Republicans are flawed because they believe global warming is a "hoax" and the world was created 6,000 years ago.

As a conservative, I do not believe global warming is a hoax. But like many conservatives, and MIT's Sloane professor of meteorology Richard Lindzen and a good many other climate scientists, I do believe

(please turn to page 79)

Right Now
The expanding Harvard universe

TECTONIC TREATISE

Swerves

More than 2,000 years ago, a Roman named Titus Lucretius Carus set down his thoughts on topics ranging from creation to religion to death. The format for his observations, many of them highly technical and uncannily modern, was a single elegant poem: readers would stomach such material more easily if it was presented artfully, he suggested, just as a child would drink bitter medicine more readily out of a cup with a honeyed rim.

He was right. In later centuries, when that poem, *De rerum natura* ("On the Nature of Things"), came under siege for its subversive potential, the work's captivating beauty would be key to its survival. Still, it barely weathered the incursions of time and hostile authorities, which conspired to put it out of view for nearly a millennium. The improbable story of how it re-emerged, and how the mindset it advocated informs our present, is the subject of *The Swerve: How the World Became Modern* (Norton), a new book by Cogan University Professor and noted Shakespeare scholar Stephen Greenblatt, to be published in September.

Even with its sugary rim, *De rerum natura* is not an easy read. At six books and some 7,400 lines of Latin, laden with allusion, philosophical reflection, and long forays into ancient physics, the work is demanding even for a highly trained classicist, which Greenblatt, an English professor, readily admits he is not. But neither is he addressing an audience of specialists. "I didn't want to write a book whose central concern is a technical analysis of Lucretius's poem or the detailed reception history of that poem in later literary works," he says. "I wanted to tell a story about its power—how it helped inspire the Renaissance and remade our whole culture."

Watching this power slowly unfold is

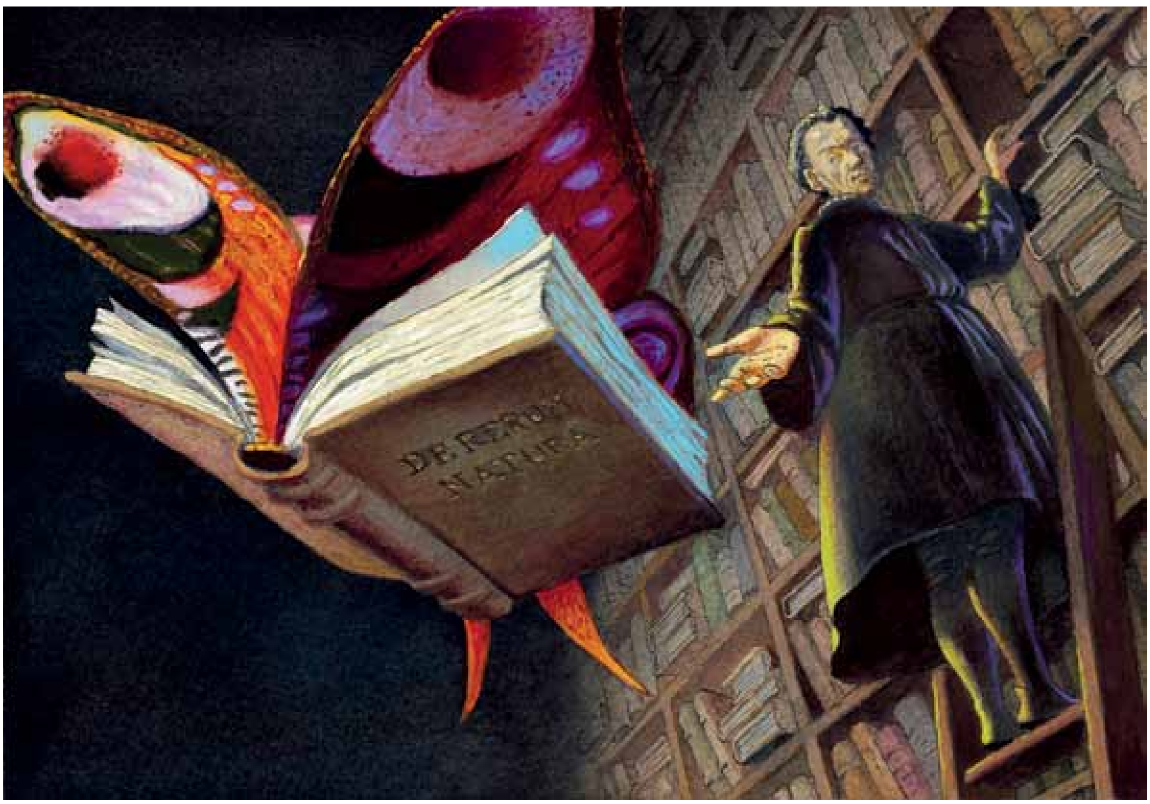

Illustration by Boris Kulikov

one of the book's pleasures. There is in Greenblatt's work a keen appreciation that the course of history is at any moment perched on a razor's edge, and that many of the chains of consequence culminating in the modern *Zeitgeist* can be traced to seemingly inconsequential instances—butterflies flapping their wings to beget faraway storms. In *Swerve*, the butterfly is Poggio Bracciolini, an unemployed papal secretary who, finding himself by chance with the time and the means to hunt down copies of ancient texts, stumbled upon a manuscript of Lucretius in a German monastery in 1417. He then did something that would resonate for centuries: he ordered that the poem be copied, and thereby delivered a long-dead Roman's philosophy, conceived in another time and largely forgotten, into a new era.

It was not an era friendly to what Lucretius had to say. The Roman poet had modeled the universe as a collection of tiny atom-like particles in perpetual motion (the titular "swerve" was his term for the deviation that leads them to collide and compose larger forms). His scheme countenanced no judgment or indeed life after death, just dissemination of body and soul back into particles. The imperative, therefore, said Lucretius, echoing the refrain of his Greek intellectual forebear Epicurus, was for man to maximize pleasure and minimize pain in the one life available to him. In the Lucretian universe it was unthinkable that the gods, caught up in their own pleasures, could take the slightest interest in human affairs. Man was free to make his own way. Part of the reason the poem disappeared in the first place, Greenblatt shows, was that it did not sit well with religious authorities who wished their subjects to cower before divine judgment and who touted earthly suffering as a path to an afterlife. In Poggio's world, with a Renaissance papacy bent on protecting its prerogatives against perceived heresy, the Roman's ideas were disturbing indeed.

"For the Renaissance world, a Christian world, the question was, 'What happens when something comes along that violates every one of your fundamental beliefs?'" Greenblatt says. "How were these radical things transmitted in a time when there was quite a repressive apparatus?" It was a question that Poggio's character helped to answer. Himself subject to the service of a repressive Church as the secretary to a notoriously corrupt pope, he found freedom in discovering and perusing the wisdom of the ancients.

There were others like him. Once Poggio delivered *De rerum natura* from its monastery prison, the beauty of the poem and the power of its ideas did their work. Greenblatt traces the emergence, from an exposition, and ambivalent denial, in the writing of the humanist Lorenzo Valla, to reproduction by Machiavelli and an appearance in the pages of Thomas More, to its place in the thought of the unhappy Giordano Bruno, the sixteenth-century friar whose execution is a testament to the murderous reflexes of a threatened Church.

That was only the beginning. When he read the poem initially, Greenblatt recalls, he was amazed at its apparent prescience. "So much that is in Einstein or Freud or Darwin or Marx was there," he says. "I was flabbergasted." And indeed, from Galileo to Darwin to Einstein, who paid tribute to Lucretius in the preface to a 1924 translation of the poet's work, science would begin to describe empirically a universe of atomic particles with behaviors dictated by forces independent of the divine. Meanwhile, Greenblatt finds Lucretius in the very roots of the American tradition: "I am an Epicurean," proclaimed Thomas Jefferson, the owner of at least five editions of *De rerum natura*, who put his stamp on a Declaration of Independence emphasizing the "pursuit of happiness."

In the end, Greenblatt acknowledges, history is complicated—there is not a straight line between Lucretius and the modern world. "And yet the vital connection is there," he writes. "Hidden behind the worldview I recognize as my own is an ancient poem, a poem once lost, apparently irrevocably, and then found."

Once Poggio delivered *De rerum natura* from its monastery prison, the beauty of the poem and the power of its ideas did their work.

~CHRISTIAN FLOW

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GENDERED BENDER

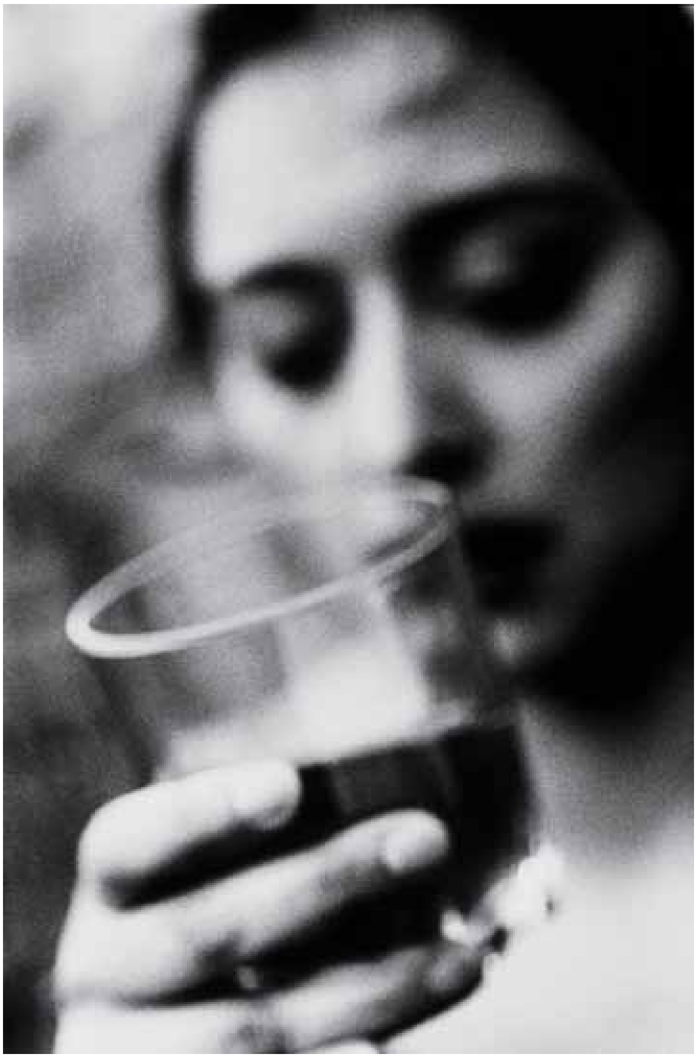
Women and Alcohol

When Shelly F. Greenfield joined the Harvard Medical School faculty in 1992, scientists were just beginning to document the fact that men and women become addicted to alcohol, and recover from that illness, differently—to recognize that "there may be gender-specific variables that affect health," says the professor of psychiatry at McLean Hospital.

During the last 15 years, scientists have documented notable gender differences in the physiological effects of alcohol—differences summed up in *Women & Addiction*, a 2009 volume co-edited by Greenfield, who has pioneered more effective treatment programs for women struggling with addiction to alcohol and other substances. Women initially metabolize only about a quarter as much alcohol in the stomach and intestines as men do (a fact not documented until 1990); consequently, more alcohol enters the bloodstream as ethanol. Women's generally lower body mass, and lower body water content, also act to intensify alcohol's effects.

Due at least partly to these physiological differences, the disease of alcohol dependence proceeds on a faster course in women, requiring medical treatment four years sooner, on average, than for male problem drinkers. Alcohol-addicted women are also quicker to develop cirrhosis, fatty liver, and cognitive impairment, and have a greater risk of dying in alcohol-related accidents than men do. These gender differences are not confined to humans: female rats become addicted to a wide range of substances, including alcohol, nicotine, cocaine, heroin, and methamphetamines, more quickly than males.

Epidemiological data suggest why earlier studies of alcoholism used mostly men: as recently as the early 1980s, the ratio of alcohol-dependent men to alcohol-dependent women in the United States was 5:1. By the early 1990s, though, that ratio had narrowed to 2.5:1—a trend mirrored in Europe. A common explanation blames changing social norms: for women to drink in public or talk about having a glass of wine with dinner at home became more socially acceptable, even fashionable. Data on the age at which teenagers first try alcohol also reflect this cultural shift: girls used to wait much longer than boys to take their first drink, but since the 1990s, that gap, too, has disappeared.

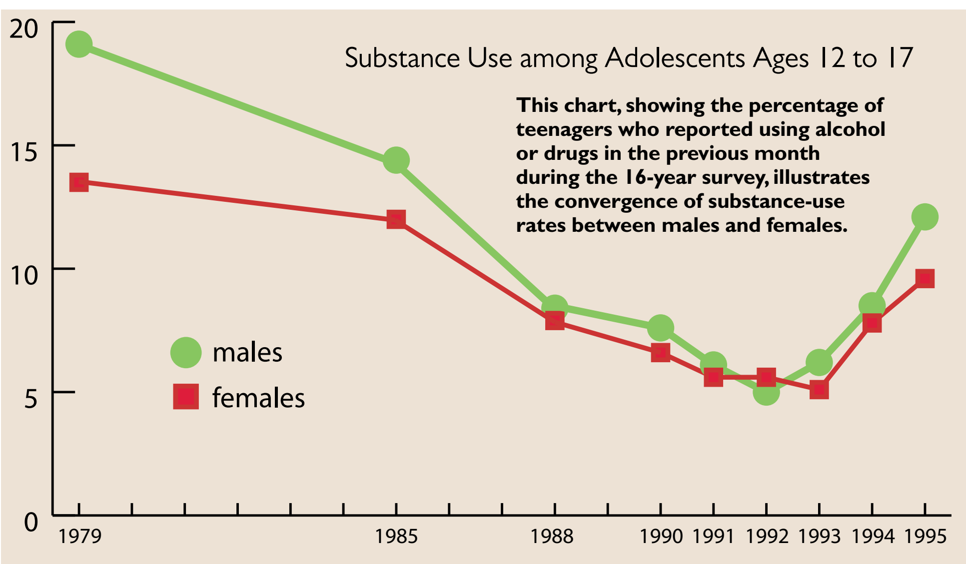


JOSH PULMAN/STONE/GETTY IMAGES

After six months, women from the all-female group continued to improve, whereas women in the mixed group were likely to have relapsed.

The male-female gaps have narrowed not only for alcohol but for other substances—a fact that has made Greenfield's work increasingly important. Taking issue with the notion that addiction treatment strategies developed for men will work equally well for women, she and colleagues have developed a treatment manual with a focus on issues specific to women—for example, their tendency to act as caretakers, sometimes to the exclusion of their own needs. A pilot study of this woman-centered approach found it to be just as effective as a typical, mixed-gender, 12-week treatment program during the course of treatment; more significant are the results indicating that after six months, women from the all-female group continued to improve, whereas women in the mixed group were likely to have relapsed. Women with "low self-efficacy" (a lack of faith in their own ability to stay clean), who have proven more vulnerable to relapse with typical treatment, did best in the all-female treatment group, faring even better than women with greater self-confidence. Perhaps, says Greenfield, the woman-focused program, administered in a single-gender environment, "isn't important for all women, but will be really essential" for some.

Greenfield believes the combination of woman-centered content and group dynamics are what make her treatment so effective. In the all-female groups, "From day one, people shared personal information very quickly," she reports. "There seems to be a kind of bond of understanding." Seeking to quantify the dynamics of this supportive environment, Greenfield and colleagues are monitoring so-called "affiliative statements" in the different treatment groups by tallying how many times one group member voices support or empathy



SOURCE: OFFICE OF APPLIED STUDIES, SAMHSA, NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE for another. In particular, tabulating the dynamics of the mixed-gender groups enables them to compare the flow of these statements between men and women.

Following up the pilot study, Greenfield is now evaluating her woman-focused treatment in a randomized controlled trial with a larger group. Meanwhile, she is gratified by the "explosion" of work on women and addiction. If anything, she says, there may now be a shortage of researchers who are investigating factors specific to men, because the treatments for male addicts were developed before recent discoveries about addiction dynamics. "People often ask, 'Well, what about men? Is there something that would be most helpful to *their* recovery?'" she reports. "That's a different question, and we don't know the answer."

~ELIZABETH GUDRAIS

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BLASTING BLAZES

Snuffing Flames with Electricity

THREE YEARS AGO, the Defense Advanced Research Projects Agency (DARPA) laid down a challenge to scientists: find a way to use electric fields or sonic waves to suppress fire *instantly*. "Fire, especially in enclosed military environments such as ship holds, aircraft cockpits, and ground vehicles, continues to be a major cause of material destruction and loss of warfighter life," noted the agency in its announcement. This spring, scientists in the lab of Flowers University Professor George Whitesides succeeded in extinguishing a flame a foot and a half high with a strong electric field.

A flame, explains Ludovico Cardemartiri, the postdoctoral fellow who ran the experiments, is really a chemical reaction in which part of the combustible fuel source is being ionized—separated into positively and negatively charged particles that form a gas cloud of charged particles called a plasma. That much has been known for a long time, and scientists have even used static electric fields to "bend" flames.

The Whitesides team found that by using an oscillating electric field (of the kind generated by alternating current), rather than a static field, the flame could actually be snuffed out. Because a flame is a complex system, composed of myriad dynamic parts, Cardemartiri explains, scientists still don't have a complete quantitative understanding of this process. But they think that the soot in the flame might play an important role, by concentrating the positively charged ions in the plasma; when a high-voltage electric field emanating from the tip of a wire is pointed at the flame, it exerts a repelling force on the charged particles, which drag the plasma with it. Pushed off its fuel source, the flame dies.

Whether this discovery will yield fire-suppression technologies of the kind that DARPA hopes for remains to be seen. Nevertheless, Cardemartiri points out that this kind of basic research, which has yielded new insight into how electrical waves can control flames, could have an impact on other important applications of combustion—perhaps even in cars or power plants.

~JONATHAN SHAW

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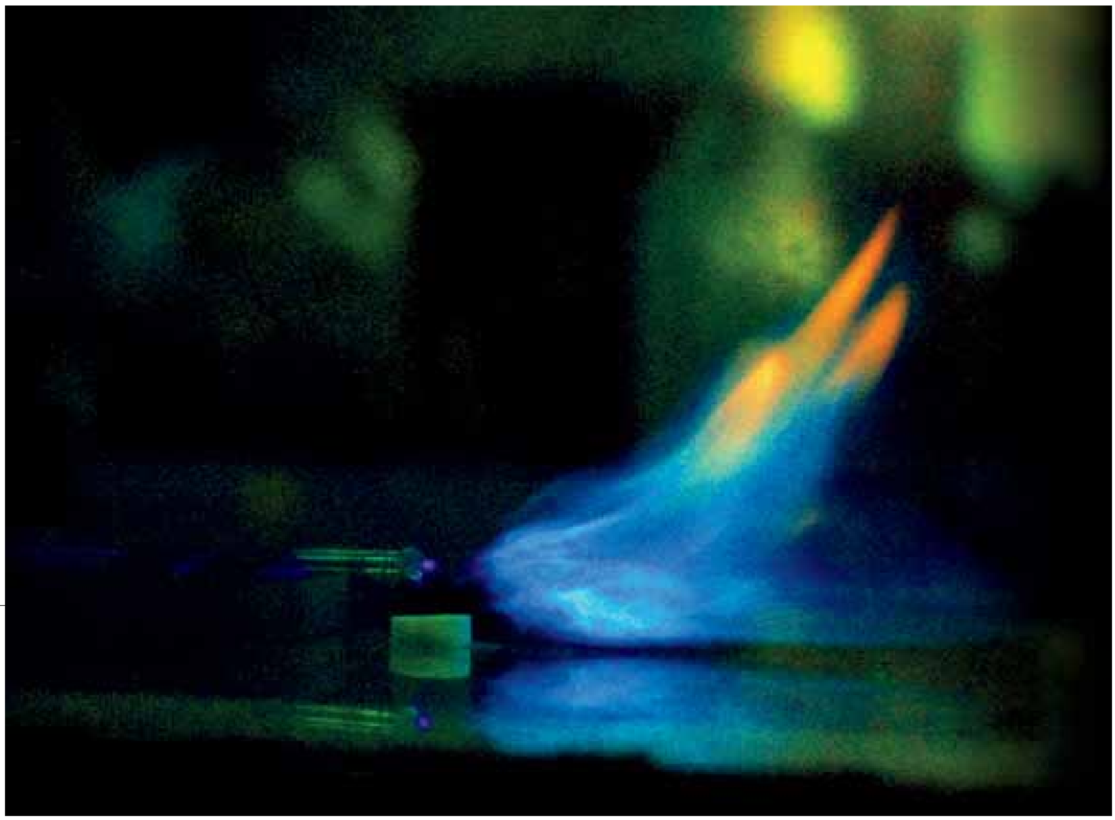

George Whitesides and colleagues have discovered that they can extinguish a flame by pushing it off its fuel source, using an electric field that emanates from the tip of a wire.

Photograph courtesy of George Whitesides

New England

REGIONAL SECTION

Extracurriculars

SEASONAL

The Farmer's Market at Harvard
www.dining.harvard.edu/flp/ag_market.html
In Cambridge:
Tuesdays, noon-6 P.M. (rain or shine)
Lawn between the Science Center and Memorial Hall, at the corner of Oxford and Kirkland streets.
In Allston:
Fridays, 3-7 P.M.
Corner of North Harvard Street and Western Avenue.
Organized by Harvard University Dining Services, this outdoor market runs through October, emphasizing local goods—fresh produce, baked treats, jams, herbs (from Gilson's Farm, see page 12K), chocolates, and cheeses—and sponsoring cooking demonstrations and other events.

THEATER

American Repertory Theater
www.americanrepertorytheater.org
617-547-8300 (box office)
• August 17 through October 2
The Gershwins' Porgy and Bess. This classic American story premiered at the Colonial Theater in Boston in 1935 and now returns featuring Audra McDonald, Norm Lewis, and David Alan Grier under the direction of Diane Paulus.
Loeb Drama Center, 64 Brattle Street.

Continuing: ***The Donkey Show,*** a high-energy Studio 54 adaptation of *A Midsummer Night's Dream* featuring chiseled male fairies, an acrobatic Titania, and a cross-gendered mix-up of lovers. Wear your 1970s-era attire and prepare to "boogie…on down!"
Oberon Theater, 2 Arrow Street.

MUSIC

Harvard Summer Pops Band
• July 28 at 4 P.M. in Harvard Yard
• July 31 at 3 P.M. at the Hatch Shell on the Charles River Esplanade in Boston
Concerts are free and open to the public.
Harvard Summer School Chorus
• August 5 at 8 P.M. Sanders Theatre.
Harvard Summer School Orchestra
• August 6 at 8 P.M. Sanders Theatre.
Both concerts are free and open to the public.

NATURE AND SCIENCE

The Arnold Arboretum
www.arboretum.harvard.edu; 617-495-2439
• July 30 through September 11, with an artist's reception on August 3, 6 - 8 P.M.
All Around Us features works by self-taught painter Ricardo Maldonado, who captures the ever-changing character of trees through varying degrees of light, shapes, and colors.

FILM

The Harvard Film Archive
http://hcl.harvard.edu/hfa; 617-495-4700
Visit the website for complete listings.
• July 22-24
World on a Wire, by Rainer Werner Fassbinder. Recently restored and re-released, this visionary science-fiction thriller was made for German television in 1973.
• July 29-August 29
The Complete Joseph L. Mankiewicz offers a retrospective celebrating this prolific Hollywood writer, director, and producer, including *All About Eve, Suddenly Last Summer, Cleopatra,* and *Guys and Dolls.*
• August 12-13
George Kuchar's Weather Diaries. The director will appear in person to talk

Left to right: *Bankers Receive News from a Dak Runner* (detail), India, c. 1850, at the Harvard Art Museums; a painting by Ricardo Maldonado from *All Around Us,* at the Arnold Arboretum; do-it-yourself cuneiform at the Peabody Museum's Wonders of Writing family event

FROM LEFT TO RIGHT: KIM MASTELLER/HARVARD ART MUSEUMS/ COURTESY PRESIDENT AND FELLOWS OF HARVARD COLLEGE; RICARDO MALDONADO/ARNOLD ARBORETUM; PEABODY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY

PATRICK ROGERS/©PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Denizens of *New England Forests,* a new permanent exhibit at the Harvard Museum of Natural History

about and screen his favorite personal video journals, filmed while he was holed up in motels chasing tornadoes and other extreme weather conditions.

EXHIBITIONS

Harvard Art Museums

www.harvardartmuseum.org; 617-495-9400

• Continuing: ***Company to Crown: Perceptions and Reactions in British India*** highlights a hybrid Indo-European painting style.

Peabody Museum of Archaeology and Ethnology

www.peabody.harvard.edu; 617-496-1027

• July 16, noon to 4 P.M.

Wonders of Writing

This drop-in family event provides the chance to explore cuneiform (from the ancient Middle East), Maya glyphs, and Aztec code-writing. Recommended for ages five and up.

• August 20, noon to 4 P.M.

Trash Tales

Learn about artifacts and the stories behind shoes made from tires, toys created from scrap wire, and other trash-to-treasure transformations. Recommended for ages five and up.

Harvard Museum of Natural History

www.hmnh.harvard.edu; 617-495-3045

Oxford Street

New England Forests, opened in late May, is the museum's new permanent exhibit. This multimedia display with exquisite

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CAMBRIDGE, MA
A short distance to Harvard Square off Brattle Street on almost ½ an acre of secluded landscaped grounds is this unique 9+ room shingle and glass contemporary residence. Every room has its own leafy outlook – on a courtyard, patio, terrace or a planting bed. Garage plus ample extra parking. $3,500,000

BELMONT, MA
Rarely available this close to Boston. Elegant & celebrated 16+ room brick Georgian Revival w/ unparalleled views of Boston. With its southeastern exposures, the residence is set on the crest of 3.6 acres of magnificently landscaped grounds on Belmont Hill. 2-room museum; terraces; 3-car garage. $6,250,000

CAMBRIDGE, MA
Avon Hill - Exquisitely designed & renovated 11-room Victorian. Living room w/ bay & French doors; dining room w/ cove ceiling; chef's kitchen open to family room w/ fireplace. Master w/ walk-in, balcony & 4-piece bath. Library w/ built-ins & skylight. Deck & yard w/ stone patio. 3-car parking. $2,250,0000

CAMBRIDGE, MA
Agassiz – 2 completely renovated townhouses. Both units have open living/dining/kitchens, 3 beds & 3 ½ baths (including a top floor master suites), lower level family rooms, skylights, hardwood floors & parking. Close to Harvard & Porter Squares. $985,000

BELMONT, MA
Belmont Hill - Handsome, 13+ room brick Colonial Revival, c.1910, w/ exquisite details. Foyer w/ beautiful staircase; Living room w/ fireplace; dining room w/ fireplace; 5 beds, 4 full & 2 half baths. Solarium; deck; sep. ent. office suite w/ beamed ceiling & fireplace. Garage. Near the Center. $1,200,000

CAMBRIDGE, MA
On a cul de sac in Harvard Sq., this single family has been magnificently renovated by America Dural. 2 fireplaces; pocket & French doors; chef's kitchen; 4+ beds, 3 ½ baths (master w/ walk-in closet & marble bath); lower level guest suite; c/a; deck, patio & fenced yard. $1,995,000

CAMBRIDGE, MA
Mid-Cambridge. Renovated 5 bed, 2 bath condominium with lovely details. Dining room with fireplace & built-in china cabinet; chef's kitchen with soapstone counters, island, stainless steel appliances & 2 skylights. Bay windows, pocket doors, radiant heat floors & deck. Parking. $885,000

CAMBRIDGE, MA
Avon Hill – Set back from the street, this delightful 3 bed, 1 ½ bath home is surrounded by lush gardens containing flowering trees & shrubs. Open living/dining room with fireplace & built-ins; chef's kitchen with island, SubZero & Miele cooktop; mahogany decks; patio & brick driveway. $987,000

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HARVARD FILM ARCHIVE

The Harvard Film Archive screens a restored print of Rainer Werner Fassbinder's sci-fi thriller *World on a Wire* in July.

dioramas and other features examines the natural history and ecology of regional forests and their responses to human activity. (The exhibit was made possible, in part, by a gift from Paul Zofnass '69, M.B.A.-J.D. '73, who grew up in nearby Belmont and enjoyed visiting the museum as a child.)

LIBRARIES

www.hcl.harvard.edu/info/exhibitions
617-495-2417

Houghton Library

• Through August 26
Peace If Possible, or Justice At Any Rate: Wendell Phillips at 200 documents the influential career of this champion of civil rights. Letters from Harriet Tubman, Lucretia Mott, Charles Sumner, and William Lloyd Garrison are on display along with some of Phillips's papers. 617-496-4027.

Pusey Library

• Continuing: ***Going for Baroque: The Iconography of the Ornamental Map*** explores how decorative cartographic devices—cartouches, vignettes, figural borders, title pages, and frontispieces—could provide narrative underpinnings for the geospatial content of maps. 617-496-8717.

Tozzer Library

• Continuing: ***Native Life in the Americas: Artists' Views*** showcases the work of little-known Native American and women artists who were primarily illustrators, designers, and printmakers rather than painters. 617-495-1481.

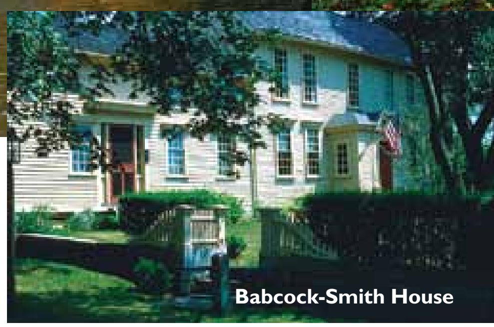
Events listings also appear in the *University Gazette*, accessible via this magazine's website, www.harvardmagazine.com.

Celebrate Summer in New England

Forays within two hours' drive of Boston • by Nell Porter Brown

Wilcox Park

Watch Hill



Babcock-Smith House

CLOCKWISE FROM LEFT: COURTESY WESTERLY PUBLIC LIBRARY; ©RADIUS IMAGES/CORBIS; COURTESY OF THE WESTERLY CHAMBER OF COMMERCE

Westerly, Rhode Island

Located near popular public beaches and the Watch Hill seaside community, Westerly is a year-round center of arts activity and percolating revitalization.

Grand nineteenth- and twentieth-century brick and stone buildings in various states of refurbishment and occupancy sit around the wonderful Wilcox Park. This arboretum-styled landscape was designed by an associate of Frederick Law Olmsted and boasts old-growth trees, a giant cedar grove, and perennial gardens pleasant to walk in. An open meadow also slopes toward a renovated fish pond, offering sunny expanses for reading, napping, and playing on the grass.

The park is owned and operated by the Westerly Public Library, opened as a memorial to Civil War soldiers and sailors in 1894, during the community's heyday as a primary source of granite for buildings and monuments across the nation. The Babcock-Smith House Museum (www.babcock-smithhouse.com), near the spot where granite was discovered in the area in 1845, helps elucidate this industrial history.

The library itself, a private, nonprofit organization, is a town hub. It will soon reopen its Hoxie Gallery, which displays the work of local artists, and hosts many popular gatherings, including art festivals and summer concerts in the park.

There has been an on-again, off-again concerted effort to revitalize Westerly, which sits just across the Connecticut border, during the last two decades. Organizations like the Artists' Cooperative Gallery (www.westerlyarts.com)—started in 1992 as a focal point for regional artists, it now offers rotating monthly exhibits and juried shows—and the Westerly Land Trust (www.westerlylandtrust.org), active in preserving both rural land and urban properties, have been instrumental in the process, as has the concentrated financing and attention of mutual-fund manager Charles Royce, a longtime summer resident.

In recent years the trust has bought the former United Theater, built in 1928, and the majestic, granite-faced Industrial Trust Bank. Plans are under way to preserve and try to re-adapt those sites. The Colonial Theater (www.thecolonialtheater.org) runs an annual Shakespeare festival—in July there are free outdoor performances of *The Tempest* in Wilcox Park—while the Granite Theatre (www.granitetheatre.com) offers plays and musicals year-round. A heralded jazz venue, the Knickerbocker Café (www.theknickerbockercafe.com) has been newly renovated and boasts a line-up of bands and danceable music.

Not every redevelopment effort comes to fruition, of course, or ultimately succeeds. Visitors may see some obvious lags in the local rebuilding efforts. But Westerly's clear draw lies in this very dynamic, in its eclectic, organic mix of funky and traditional: it has not been "quaintified." The Corks and Perks (coffeehouse by day, dynamic bar by night) coexists smoothly with the "real drinks for real people" Danny's Bar; the natural-foods store and the auto-parts outlet serve the same patrons.

Moreover, the number of independently owned, diverse restaurants is reassuring in this age of commercial sprawl and chain businesses. Take the Van Ghent Café (www.vanghentcafewesterly.com), a Belgian breakfast and lunch place, for example, and 84 High Street (www.84highstreet.com), known for generous portions of American food, or the Prime Time Café (www.ptcafe.com), a great place for dining with young children. The relatively new Bridge Restaurant (www.bridgeri.com) has a diverse menu with good vegetarian options along with fresh seafood. Its relaxing outdoor patio overlooks the Pawcatuck River, which separates Westerly and its neighboring sister community, Pawcatuck, Connecticut (which is part of the town of Stonington and includes a historic district with sites ranging from shipworks and mills to worker housing).

The beaches, about a 15-minute drive from Westerly (or a longer but doable bike trip), tend to please everyone. Misquamicut State Park offers public access to sand and sun, and the usual assortment of snack bars and ice-cream and T-shirt shops. The more affluent Watch Hill, on a spit of land leading to Narragansett Bay and the Rhode Island Sound, is a car or bike ride away from the public beach and has restaurants, shops, and hotels. The most opulent is the Ocean House (www.oceanhouseri.com), a $140-million hotel, resort, and condominium complex (that opened in 2009, once again through the efforts of Charles Royce). A replica of the eponymous Gilded Age hotel, the new version is beautiful to behold, and, not surprisingly, expensive.

For other options just minutes from Misquamicut, try the quiet country setting of the Woody Hill B & B (www.woodyhill.com), the homey ambience of Grandview B & B (www.grandviewbandb.com), *or* head back downtown, take in a show you can easily walk to, and stay within sight of Wilcox Park at the Parkside East B & B (www.parksideeastbandb.com).

Worcester, Massachusetts

It may surprise some to know that this former industrial giant of a city is more than worth spending time in as a tourist. The urban center rivals Providence in size and offers not only a wide range of art, culture, and history but a disproportionate number of great restaurants, parks, a lake—and a string of fun vintage-clothing and home-goods stores.

Where to begin? The Higgins Armory (www.higgins.org) is a testament to founder John Woodman Higgins's passion


Higgins Armoy


Higgins Armoy

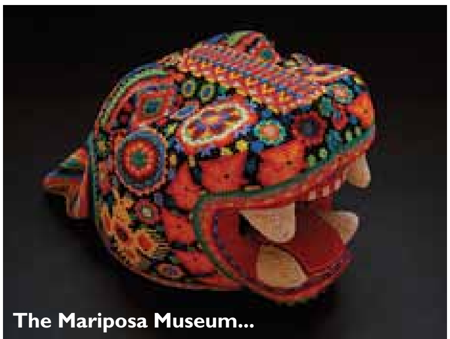

Clark University Hadwen Arboretum

FROM LEFT TO RIGHT: COURTESY OF THE HIGGINS ARMORY; COURTESY OF CLARK UNIVERSITY

for steel. He spent his life collecting it, mostly in the form of armor, finally erecting a four-story Art Deco-style building (now on the National Register of Historic Places) to house most of it as an educational resource for the public. The building holds more than 5,000 items, including European swords, daggers, gauntlets, spears, and complete suits of armor, as well as elaborate helmets (including one from 550 B.C.E.), along with less familiar weapons and armor from African nations, India, Turkey, and Japan. Weekend programs may offer combat demonstrations, living-history group reenactments, and explorations of the culture of knighthood. There is also a unique "OverKnight" interactive parent-child program for groups, and the building may be rented for parties.

Downtown's Worcester Art Museum (www.worcesterart.org) has a dynamic permanent collection of creative works from around the world, as well as thought-provoking temporary exhibits, such as *The Strange Life of Objects: The Art of Annette Lemieux* (through October 9) and an exploration of *Leisure, Pleasure, and the Debut of the Modern French Woman* (through September 11) featuring eighteenth- and nineteenth-century prints and illustrations. Children, teenagers, and adults can also take a range of art classes and workshops.

For outdoor fun, Regatta Point, on Quinsigamond Lake, a short drive from downtown, offers swimming, sailing, and inexpensive canoe rentals. There is also the 60-acre Elm Park, among the first parcels of land bought (28 initial acres in 1854) by a municipality with the intention of creating a park; it was later developed by the firm of Frederick Law Olmsted and is still an oasis with walking and biking paths, fountains, and places to picnic. Less well known is Clark University's Hadwen Arboretum (www.clarku.edu/students/outingclub/resources/Arboretum_historical_notes.pdf or www.massachusetts-mapsite.com/us_ma_hadwen_arboretum_vt.html). A 1907 bequest, it had at one time more than 400 varieties of trees; though it could be more thoroughly cared for today, it is still a wonderful place to poke around in.



The Mariposa Museum...

and World Culture Center

Worcester's long industrial history has always drawn immigrants; today, the city houses newer arrivals, including Brazilians, Iraquis, Southeast Asians, and immigrants from various African nations.. Ethnic restaurants abound. Try the Vietnamese food at Pho Dakao (593 Park Avenue) and the vegetarian dishes at Quan Yin (56 Hamilton Street), or African fare at Tropical Gardens (344 Chandler Street). For big portions and a fun twist on pastas and Mexican food, go to the Flying Rhino (www.flyingrhinocafe.com) on Shrewsbury Street—Worcester's restaurant row.

The newer Haiku Sushi (www.haikurestaurant.com) doubles as a steakhouse: where else can you order the 14-ounce "cowboy rib-eye" steak with your miso soup? Seafood lovers who want a more buzzing social milieu might want to experience the favored Sole Proprietor (www.thesole.com), which features a giant inflatable crab on its roof during the summer. The menu offers classic New England maritime fare along with sushi specialties and irresistible desserts, such as whoopie pies and banana splits. For a full taste of the range of Worcester's restaurants, visit the city's weekly alternative newspaper at www.worcestermag.com/chow/reviews.

Worcester has a few shopping districts, but those looking for unusual items should stop into Unique Boutik and the Futon Co. (home goods and local art), across the street from the Sole Proprietor. Or drive across town to a burgeoning restaurant and retail area called the Blackstone Canal District and check out Blackstone Vignettes (a resale cooperative), vintage clothing store Alexis Grace, or two home goods/salvage places called Provenance and Architectural Garage.

Lodging options are far more routine. The chains—Hilton, Marriott, Quality Inn, and Hampton—all have hotels in Worcester, and the "luxury" choice is the largely impersonal Beechwood Hotel and conference center (www.beechwoodhotel.com), located away from downtown near the University of Massachusetts medical center by Lake Quinsigamond.

Peterborough, New Hampshire

The "Peterborough idea," conceived around the turn of the last century, was a way to give diverse artists a peaceful place to create in the company of their peers. It was the founding principle of the MacDowell Colony, started on a local farm by composer Edward MacDowell and his wife, Marian, and has since grown into a major force in the art world. It has also helped shape the course of this scenic New England town—immortalized in *Our Town*, written by Thornton Wilder, a one-time colony resident.

Nestled along the Contoocook River, Peterborough is home to about3,000 residents. It was historically a prosperous mill town within the Monadnock region but has long reveled in its reputation as a serious center for the arts, summer residents, and culture-minded retirees. The Sharon Arts Fine Craft Gallery downtown (www.sharonarts.org/shop/fine-craft-gallery-info) offers works by regional artists and exhibits; it is an arm of the nearby Sharon Arts School of Art and Craft, which runs classes for all ages, year-round. The Mariposa Museum and World Culture Center (www.mariposamuseum.org) seeks to teach people about art and traditions across the globe. It holds a small but intriguing collection of international folk art, and encourages visitors to "Please Touch"; children can dress up in kimonos, play musical instruments, and put on puppet shows.

Peterborough Players

The museum, co-founded by David Blair '70 and his late wife, Linda Marsella '70, also hosts unusual exhibits and events that explore world culture, art forms,

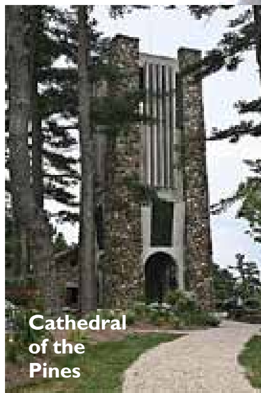
COUNTERCLOCKWISE FROM TOP LEFT: COURTESY OF THE MARIPOSA MUSEUM AND WORLD CULTURE CENTER; COURTESY OF THE PETERBOROUGH PLAYERS and spirituality: this spring, for example, visitors could learn about an *ikonostasi* (a Greek Orthodox home altar) and an elephant orphanage in Kenya, or they could watch a Mevlevi Turning Ceremony, a sacred whirling exercise founded in Turkey hundreds of years ago.

The town has a rich theatrical tradition and still boasts the Peterborough Players (peterboroughplayers.org), a professional theater troupe established in 1933. Summer shows include *Arms and the Man*, *Measure for Measure*, and *Puss In Boots*.

Accommodations run the gamut. The Peteridge at the Pond (www.peteridge.com) has two guest houses for larger families or groups and the Three Maples (www.threemaples.com) in Sharon has hiking and walking trails from the back door. In nearby Troy, The Inn at East Hill Farm (www.east-hill-farm.com) is a great, old-style, low-key family resort, complete with bingo and ping-pong tournaments, while the Jack Daniels Motor Inn (www.jackdanielsmotorinn), located right in downtown, is simply clean and comfortable—and an easy walk for coffee at Aesop's Tables in the welcoming Toadstool Bookstore.

Food choices downtown include the hearty American-style bistro lunch or dinner at Harlow's Deli, Café, and Pub (www.harlowspub.com) with great live jazz and dance music at night. Or visitors of all ages may enjoy sliding onto stools at the historic Peterborough Diner (www.peterboroughdiner.com), housed in an original 1950 Worcester Lunch Car.

For outdoor trips, the Monadnock region offers its eponymous mountain, one of the most-climbed in New England, but also has a surprising diversity of other parks and trails of interest, such as the 1,672-acre Wapack National Wildlife Reserve (www.fws.gov/wapack) southeast of Peterborough, which includes a 21-mile spur of the Appalachian Trail, or Casalis State Forest (www.greater-peterborough-chamber.com/new-hampshire-camping.html), with hikes that connect to Temple Mountain. For quiet contemplation, consider a trip to the Cathedral of the Pines (www.cathedralofthepines.org), an interfaith center and memorial grounds open May through October.


Cathedral of the Pines


Sharon Arts Fine Craft Gallery

FROM LEFT TO RIGHT: COURTESY OF CATHEDRAL OF THE PINES; COURTESY OF THE SHARON ARTS FINE CRAFT GALLERY

An Evening with Chef and Author Joanne Chang '91

On May 11, 2011, loyal magazine donors gathered at Harvard's Murr Center Lounge for a reception and book signing with Joanne Chang '91, chef, restaurant owner, and author of the new cookbook *Flour: Spectacular Recipes from Boston's Flour Bakery + Cafe*.

To learn how you can become a Friend of Harvard Magazine, and for details about our fall friends event, please visit www.harvardmagazine.com/friends.

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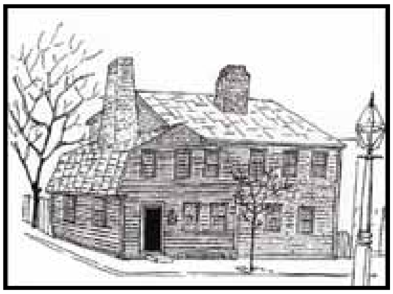
John Frye House c 1760



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HARVARD MAGAZINE

Rustic Charms

Conviviality, slow food, and the freshest herbs around

COURTESY OF THE HERB LYCEUM AT GILSON'S FARM

Above: Meals are served at two communal tables in the restored barn.

DINNER GUESTS at The Herb Lyceum at Gilson's Farm are free to wander through the European-style gardens or the greenhouses filled with lush rosemary, thyme, and spearmint. Or they can sit out on a stone terrace with a glass of wine, breathing in the fragrant air, before settling in for a $55 prix fixe, six-course meal in the handsome, wood-beamed barn.

Open year-round on Fridays and Saturdays, this largely unheralded restaurant is set amidst a charming, five-acre working herb farm in the historic town of Groton, Massachusetts, off Route 2. Proprietor David Gilson counseled special-needs kids before switching to farming in 1989. He greets guests, emphasizing the kitchen's "slow food" philosophy, then leaves the evening to chef Paul Callahan. A bouncy young man, Callahan seems to enjoy hanging out with diners, revealing how the food is prepared, just as much as cooking it. "I'm your personal chef for the evening," he said one night. "Ask me anything you want." (One woman inquired, as the evening and wine-drinking wore on, if he was married.)

In all, about 28 diners sit together European-style at two tables: you are next to strangers if you don't come with your own large party. (Reservations are required.) There is also a BYOB policy, which can lead to sharing your wine and others' during the three-hour meal. People become chatty, and even loud. Because it's a self-selecting group, most of whom have traveled a good distance to dine in a beautiful spot, a jolly mood abounds, especially as each artfully prepared dish, on a menu that changes seasonally, arrives.

Callahan's *amuse-bouche* was a refreshing Vietnamese spring roll with Gilson's cilantro and edible Johnny jump-ups. This was followed by farm-raised Vermont lamb tartare, flavored with lemon and thyme. Each accompaniment—rye croutons, pickled Groton-grown ramps with a spicy Asian kick, a dollop of tomato-and-mirin sauce, and a bean purée—paired interestingly with the meat.

The rich lamb was offset by the next course, a nuanced sweet-pea soup made with a twist of spearmint and goat's milk, "not as heavy as cream and an earthier flavor," Callahan noted. On the side were ravioli filled with barbecued pork and chopped cranberries.

Smoked salmon, quick-cured with salt, sugar, herbs, and citrus, had a nice crustiness and tasted of lavender, thyme, and basil. The fillets came with a Provençal-style stew (*barigoule*) of artichokes, leeks, and fennel mixed with navy beans, celery, carrots, and a scattering of pea tendrils—earth and sea combined. Then the small slabs of regionally made artisanal cheeses arrived with a homemade biscuit, a stellar green-tomato jam, and Marcona almonds encrusted with rosemary and lavender. (The farm also sells its herbs and jams at farmers' markets around Greater Boston.)

Dessert was a coconut and lemon verbena *panna cotta* served with spare elegance on a plate decorated with grapefruit slices and an innovative juniper-berry sauce; the cutting sweetness merged with the soft chunks of white cream in your mouth.

Sprigs of lemon verbena also graced each place setting and could be swirled in one's water glass, creating a delicious scent and flavor. At Gilson's, the focus is on the herbs, not surprisingly, and the subtle art of mixing and matching extracted flavors, just as a painter dabs to get just the right color. Or, as Callahan puts it, each course aims to be "performance art for the palate." ~N.P.B.

Editor's note: Groton is also the site of the Kalliroscope Gallery, a converted church, that features chamber music, readings, and exhibits, and is owned by Paul Matisse '54 (www.harvardmagazine.com/2002/05/pure-fabrications.html).

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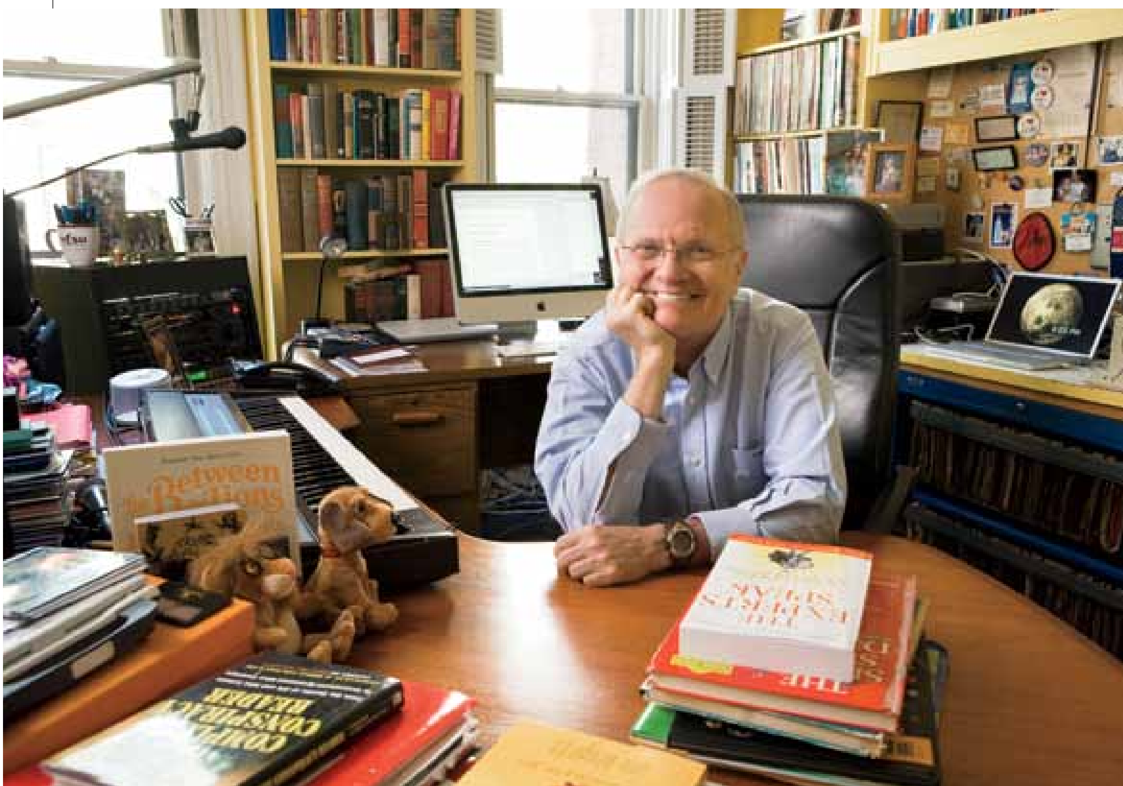


Christopher Cerf in his home office in Manhattan, surrounded by his books, keyboards, files, screens, and stuffed animals

Channel Cerfing

With sound, image, and word, Chris Cerf teaches the basics.

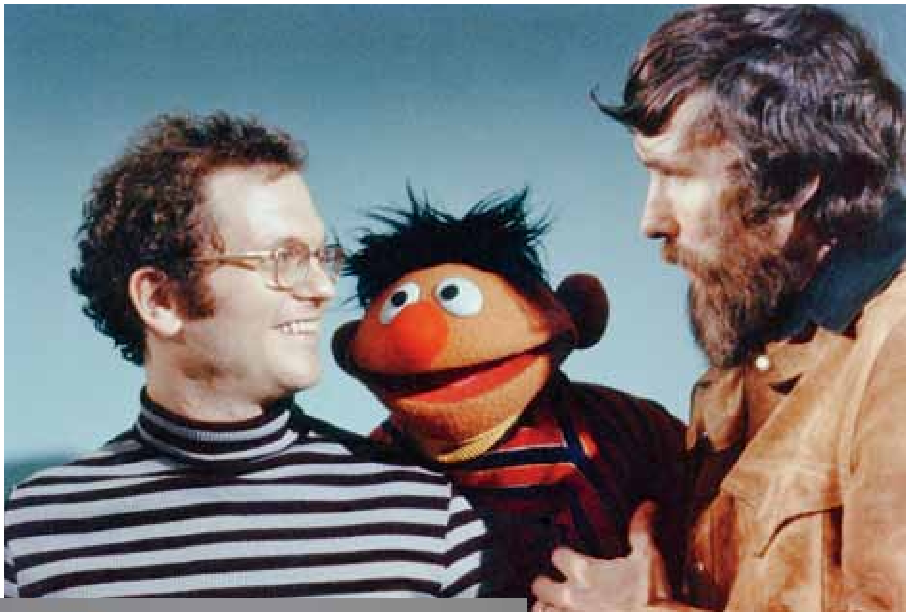
by CRAIG LAMBERT

Christopher Cerf '63 had laughter in his blood even before he was born: *New Yorker* founder Harold Ross introduced his parents and comically brandished a shotgun at their wedding. Those parents would be Phyllis Fraser, a onetime Hollywood actress and later book editor, and Bennett Cerf, cofounder of Random House publishers, author, columnist, and TV panelist on *What's My Line?*

Like his father, the jovial Cerf is a creator in several media. "I've found that the most interesting way to go, too," he says. "To build on what you learn in one place and use it somewhere else." His professional career also began in his father's footsteps. For eight years after college, Cerf was an editor at Random House ("Don't know how I got the job…," he marvels), working with authors ranging from Abbie Hoffman to Theodor Seuss Geisel ("Dr. Seuss"). He was also involved with the publisher's Beginner Books imprint (started by Seuss and his wife, Helen, along with Phyllis Cerf), which published easier-to-read Seuss titles.

Then he branched out, applying his facility at writing parodies (honed as an undergraduate on the staff of the *Harvard Lampoon*, where he and Michael Frith '63 co-wrote the James Bond parody book *Alligator)* at the *National Lampoon*, which Cerf joined in 1970 as a contributing editor from its first issue (see "Funniest Pages," November-December 2010, page 27). That same year, he signed on with a fledgling children's television program, *Sesame Street*—his Beginner Books experience came in handy—and to date has composed more than 200 songs for it. "If you write four or five songs a year and the show lasts 40 years, you have a huge body of work!" he explains. That body of work has earned

Photograph by Robert Adam Mayer



Above: A younger Cerf with Muppeteer Jim Henson (right) and Muppet Ernie. Left: Cerf and colleague Norman Stiles flank dog star Lomax as Cerf holds Delta the cat. Below: Cerf today with characters from *Between the Lions*

him three Grammys and eight Emmys, for both songwriting and producing.

Cerf's songs include parodies of pop hits, including Beatles classics like "Let It Be" ("Letter B") and "Hey Jude" ("Hey Food," sung by the Cookie Monster). As "Bruce Stringbean," Cerf belted out a send-up of The Boss's "Born in the U.S.A." that featured various farm animals making sundry sounds while getting along famously, a lesson in diversity called "Barn in the USA." *Sesame Street* puppet-meister Jim Henson even created a stuffed character based on Cerf: the piano-banging lead singer of "Little Chrissy and the Alphabeats." (Cerf's rock-piano style, which owes much to Jerry Lee Lewis, is energetic enough to fracture a keyboard occasionally.)

For some years Cerf headed *Sesame Street*'s "non-broadcast division," which spun off educational products like books and records from the show. "*Sesame* uses all the media, just like we did on both *Lampoons*," he explains. (He and *National Lampoon* co-founder Henry Beard '67 have collaborated on several humorous books, including *The Experts Speak.*) His versatility embraces a 1987 collaboration with actress/producer Marlo Thomas on *Free to Be...A Family* (the book/record/TV special sequel to *Free to Be...You and Me*) and *Not the New York Times,* a parody of the Grey Lady published during the 1978 strike that closed down the newspaper. Co-conspirators on the latter, among his "most enjoyable adventures," included George Plimpton '48, editor/writer Rusty Unger, and writer/satirist Tony Hendra. The group discovered that the *Toledo Blade* used the same typefaces as the *Times* and was willing to print the parody, and the *Washington Post's* Carl Bernstein agreed to write the lead story.

"He had the voice down to a T," Cerf says. "We wrote the paper just like the *New York Times*, only more so. The *Times's* own writers were all available—they were out on strike! Nora Ephron was involved, and Frances FitzGerald ['62] did a book review. Nobody slept for four weeks; it was one of the highlights of my professional life. Our big terror was that the strike would end and the real *Times* would start publishing again before we went to press. Luckily it didn't, and we sold millions of them."

In recent years Cerf has been rolling out his own educational programs under the auspices of Sirius Thinking Ltd., the media company he launched with three partners, including Michael Frith, in 1995. *Between the Lions,* co-produced with WGBH-TV in Boston, a children's literacy initiative that includes a daily television show, a website, and print and multimedia components, premiered on PBS in 2000. It stars a pair of lions who live in and run an enchanted library. Cerf co-produces and writes songs for the show, which has won six Emmys. "*Sesame Street* targets preschoolers, three- to five-year-olds, and early fives," Cerf says. "*Lions*' sweet spot is pre-kindergarten to first grade: four- to seven-year-olds."

Lomax: The Hound of Music, another Sirius project, launched in 2008. It follows Lomax, a good-natured dog hooked on melodies, around the country with his human and feline companions, Amy

PHOTOGRAPHS COURTESY OF CHRISTOPHER CERF and Delta, as they scout out folk songs and teach viewers about musicality and America's musical heritage. The pedagogy draws on the ideas of twentieth-century Hungarian composer Zoltán Kodály, who advocated "using folk music to teach music," Cerf explains. "Folk songs are a great way to teach young children—they've got lots of repetition, and call-and-response."

The dog star's namesake is, of course, Alan Lomax '34, who unearthed and recorded much of America's folk music, and "'Hound of Music' is about as bad a pun as you can do, so we just had to use it," Cerf notes. He and his Sirius colleague Norman Stiles visited Anna Lomax, the musicologist's daughter, to ask permission to use the family name. As they explained the show's concept of a roaming puppet dog obsessed with tunes, "She just sat there looking blankly at us, and we thought we were in more and more trouble the more we said," Cerf recalls. "Then she said, 'You guys are crazy—you're nuts! But I *love* it!'"

Lomax doesn't do "kiddie music." "We got the best bluegrass and folk musicians we could possibly find," Cerf explains—people like two-time Grammy-winning guitarist Larry Campbell. The program has aired on about half the PBS stations in the country, but depended on a one-time grant from the Bingham Trust and, Cerf says, "in this environment, it's kind of hard to find millions of dollars to keep making new episodes." Should those millions turn up, we'll not have heard the last of *Lomax*, but if not, it's safe to say that Chris Cerf will find something else—or 10 other things—to do.

HM▶ Visit harvardmag.com/extras for video and audio of Cerf's work.

Fakery and Shakespeare

A con man, his son, and a fiction on two levels

In some circles, the debate still rages about who Shakespeare really was: A mere actor? A pseudonymous earl? Rival playwright Christopher Marlowe? The novelist Arthur Phillips '90 is not typically listed among the contenders but, with *The Tragedy of Arthur* (Random House), he has briefly thrown his hat into the ring.

Structured, *Pale Fire*-like, as a lengthy introduction to a newly discovered Shakespeare play, the novel concludes with a full five-act play in impeccable iambic pentameter written by Phillips himself. Phillips presented the play to a handful of scholars and theater companies before letting them in on the joke—and managed to persuade a few of them of its authenticity along the way. (One company regretfully declined, its managers said, not because they didn't believe it was Shakespeare, but because their line-up was booked through 2013.)

Phillips won instant acclaim with his first novel *Prague* (2002), about expats adrift, ironically, in Budapest, the less glamorous of the two post-Iron Curtain capitals. *The Tragedy of Arthur* is no less funny and no less mischievous than his previous four novels, but takes up an especially rigorous line of questioning: Why are we so inclined to worship Shakespeare? Phillips seems to take the question personally. "I've read Shakespeare since I was a kid and I liked some of it, but I always felt that either I was missing something or he was missing something or that everybody who was telling me I was missing something was missing something," he explains. "I love a lot of it, but somehow that's not enough for a lot of people."

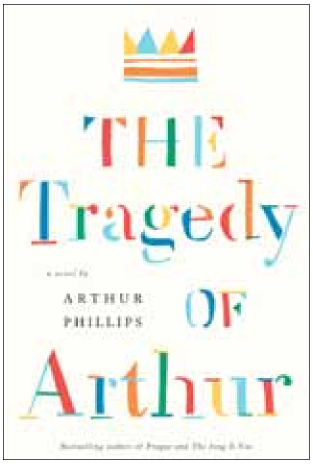
The Tragedy of Arthur plays an elaborate game with the reader. A narrator named Arthur Phillips, who bears an uncanny resemblance to the author—he has written novels called *Prague* and *The Egyptologist* and went to Harvard—is under contract to write an introduction to an unpublished Shakespeare play unearthed by his father, a con man whose unsuccessful track record has landed him in jail more often than not. Convinced that the play is his father's final con—a sophisticated forgery meant to make good on his life's goal of adding "to the world's store of wonder and magic, disorder, confusion, possibility"—Phillips uses the introduction to challenge the play's genuineness. Along the way, his introduction gradually morphs into a confessional memoir as he becomes increasingly "addicted to the pleasures of self-revelation."

Except that the life he recounts is only glancingly autobiographical. The real Phillips's father is distinctly not a con man. "Conservative, lawyer, bow-tied,"

Arthur Phillips

BARBI REED

says the son, succinctly. Phillips is happily married to a Pilates instructor named Jan, not divorced from a former Czech model named Jana. And he has definitely never seduced his twin sister's girlfriend; he doesn't have a twin.



In person, Phillips comes across as far more sympathetic than his self-pitying fictional alter ego. Slender, verging on gaunt, with icy blue eyes, he is at once soft-spoken and commandingly charming. Unlike many novelists, he doesn't seem loath to think of himself as an entertainer. "One of the rules I set for myself about 15 years ago was, 'Sit down every day and try to have fun or amuse yourself or entertain yourself or don't worry about anything other than holding your own attention, and if you can't do that, there's no point to this,'" he says. This pursuit of amusement accounts, perhaps, for the variety of Phillips's career track: before turning to fiction, he had stints as a child actor, a jazz musician, and five-time winner on *Jeopardy*. "Maybe it's the *Jeopardy* thing," he surmises. "I'm interested a little bit in a lot of things."

Like English royalty. "By the time I was in fifth grade I had memorized all the English monarchs from Egbert through Elizabeth II," he recalls. He studied medieval history at Harvard, hoping for a chance to wield this knowledge, but the program wasn't for him. "We never talked about any of the kings, we never got to talk about sword-fighting," he recalls. "All we talked about was climate change in the fourteenth century and what that did to the labor supply and how the potatoes…." He trails off. Luckily, with *The Tragedy of Arthur*, he's been able to put his knowledge of English kings to good use.

At a recent reading at the Harvard Book Store, he launched into a deadpan presentation of *The Most Excellent and Tragical Historie of Arthur, King of Britain*, the play at the end of the new novel. "The best place to start when dealing with a possible Shakespeare play is probably my childhood," he began, to laughter, and then refused to break character for the better part of an hour, insisting that his novel was every bit the true story it claims to be. He read from one of its comic high points, a scene in which Arthur absconds with Heidi, a fellow Shakespeare-skeptic from Germany. "Old King Hamlet's ghost just walked by! Also, wait, don't get yourself excited about this, though, because first let's talk about the Norwegian army for an hour first," he exclaimed excitedly in Heidi's Teutonic accent.

It's not that Phillips isn't a Shakespeare enthusiast—it would require years to imitate the Bard's verse so well—but he finds that the mythology surrounding the playwright obscures the more workaday realities of being a writer: Shakespeare was just a guy writing on deadline like everyone else. What if, 400 years from now, he suggests as an analogy, the only television writer known from our era was *Sopranos* creator David Chase?

~AMELIA ATLAS

A Baton with Sting

Conductor Sarah Hicks spans Prokofiev and the Police.

by DAVID MENCONI

COURTESY OF THE NORTH CAROLINA SYMPHONY

A DECADE INTO her career as a conductor, Sarah Hicks '93 had "the first of two turning points." She was conducting a Minnesota Orchestra program featuring the group Pink Martini, the first pops show she'd ever done (see "Stirred, Shaken, and Sung," January-February 2008, page 17). Some classical musicians look at such work as slumming, but Hicks found it a revelation: "I thought, 'Wait a second. This is legitimate, well written, evocative. I'm having fun, the orchestra's having fun. What's not to like?'"

The second turning point came with her second pops show, conducting the music of singer/pianist Ben Folds, who was amazed that Hicks was enough of a fan to know the words to his songs. Once Folds saw her singing along during rehearsal, he relaxed—and Hicks realized that such crossover ventures could be a way to pursue two passions: her work, and the music she listened to when not working. "Few people with my background and training" attempt this, she explains. "Most pops conductors are arrangers who fell into conducting and probably aren't classically trained. But I have a composition degree from Harvard and I went to Curtis, so I've got the classical training."

That made Hicks the perfect choice

for her latest crossover coup, conducting Sting's Symphonicity tour on 30 European dates this summer. The show features orchestrated versions of songs from throughout Sting's career, both solo and with the Police. "The Sting tour is a true marriage of both worlds," Hicks says. "Presenting his music in this way makes it different, changes the whole nature of what he's written. That's a reason to do crossover projects. It shouldn't be one thing supporting another. You're trying to make something new."

Born in her mother's native country, Japan, Hicks grew up mostly in Hawaii as a child-prodigy pianist, playing music rather than leading it. When she developed chronic tendonitis as a teenager, she thought her music career was over. It hurt too much to play the piano, and her father found her crying in her room one day. His advice: "Stop crying. You can still hold a stick." She switched to the viola, because it was less painful to play, and joined the high-school orchestra. One day she asked her instructor if she could give conducting a try. He handed over his baton and disappeared for 20 minutes. "That gave me enough time to conduct the first movement of Dvorak's Eighth Symphony," she says. "I was hooked." At Harvard, though she specialized in composition because of music department requirements—her senior thesis, The AIDS Oratorio, set poetry and prose written by people with AIDS

GREG HELGESON

Sarah Hicks conducting the Minnesota Orchestra

to music—she recalls having "a fantastic time conducting: so many groups to work with, doing things like opera and musical theater."

Hicks's current posts with the Minnesota Orchestra (principal conductor of pops and presentations), North Carolina Symphony (associate conductor), and Curtis Institute of Music (staff conductor) keep her busy with works from both the classical and modern canon. Between those responsibilities and endeavors such as Symphonicity, her schedule can be mind-boggling. A typical workday involves rehearsals, studying music she'll conduct next week, writing an arrangement she'll conduct next month, and working on a contract for an event next year.

Arranging is her professional specialty, with a special emphasis on pop/classical projects. One recent work was an "'80s-themed show" ("the 1980s, not the 1880s," she quips) that takes the likes of Dexy's Midnight Runners and Cyndi Lauper into the classical world. "I think it's a more interesting process than conducting something for the fiftieth time," she says. "I branch out into everything I can. The future of classical music has to be more inclusive than it's been in the past, and that's part of my vision for myself. I want to work until I retire, and I don't intend to retire until I die. We shouldn't just be playing the great classical composers. Arts organizations have a curatorial responsibility, yes, but they also have to serve the community—and survive. Those go hand in hand. Now we're scrambling to become relevant. This is a conversation we should have been having generations ago."

With a foot in both the pop and classical worlds, Hicks is just the person to lead the discussion. Some years ago, she was briefly in a garage band with other classical musicians. And even though she claims not to be much of a singer, Hicks was the lead vocalist because, she says, "There's something therapeutic about screaming into a microphone.

"Part of me always wanted to be a rock star, which is why I'm attracted to the kind of projects I do," she admits. "I find it satisfying to be onstage with my hair down, in four-inch heels and sequined tank top—and I dare you to find any other conductor who regularly performs in that—listening to a standing ovation."

O P E N   B O O K

(Un)common Sense

There is no more powerful gambit in contemporary political rhetoric than resorting to "common sense," to principles grounded in the sentiments of "the people." But it is not evident why this is so, nor how it came to be. Sophia Rosenfeld, Ph.D. '96, associate professor of history at the University of Virginia, has dug deeply into this fertile ground. Readers can draw contemporary resonances. This excerpt is from the introduction to her book, *Common Sense: A Political History* (Harvard, $29.95).

Hot things can burn you. Two plus two make four. Seeing is believing. Blue is different from black. A leopard cannot change its spots. If I am writing these words, I exist.

There are many reasons not to write a book about common sense, especially if you happen to be a historian. For one, common sense is, by definition, ahistorical terrain. In modern parlance, we sometimes use common sense to mean the basic human faculty that lets us make elemental judgments about everyday matters based on everyday, real-world experience.... Other times we mean the widely shared and seemingly self-evident conclusions drawn from this faculty, the truisms about which all sensible people agree....

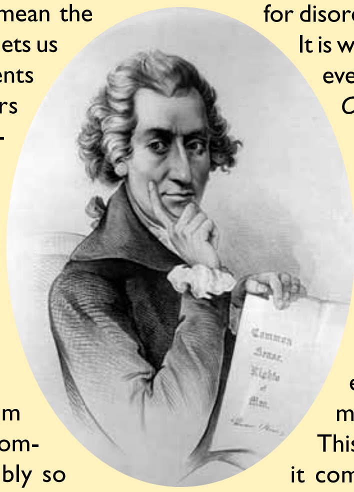
If that is not problem enough, the tenets of common sense are ostensibly so banal, so taken for granted, that they generally go without saying....

Moreover, when historians do consider common sense, they generally do so from a position of hostility: it is what social scientists see as their professional obligation to work against....

There *is* a good reason, however, why historians might well want to pause and reflect on the history of common sense itself, including its evolving content, meanings, uses, and effects. That reason is the centrality of the very idea of common sense to modern political life and, especially, to democracy.

Consider for a moment Thomas Paine's eighteenth-century boast that common sense is firmly on the side of the people and thus opposed to the rulership of kings. We have no reason, even now, to accept this pairing of common sense and republican governance as anything more than wishful thinking or a rhetorical masterstroke on the part of Paine. For most of history, and indeed even in North America in early 1776, the opposite was surely the case; the direct rule of the people was deemed an obvious recipe for disorder, instability, and worse. It is worth noticing, though, that ever since the appearance of *Common Sense*, Paine's famous call to arms of that fateful year, Americans in particular, but ultimately exponents of democracy everywhere, have paid enormous lip service to the epistemological value of the collective, everyday, instinctive judgments of ordinary people. This is particularly true when it comes to matters of public life....Trust in common sense—meaning both the shared faculty of discernment and those few fundamental, inviolable principles with which everyone is acquainted and everyone agrees—has, in the context of contemporary democratic politics, itself become commonsensical. Politics has been recast (no matter the growing complexity of the world we inhabit) as the domain of simple, quotidian determinations and basic moral precepts, of truths that should be self-evident to all.

...How did this come to be? How—and with what lingering consequences—did common sense develop its special relationship in modern times with the kind of popular rule that we call democracy?



Thomas Paine

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CHRIS '84 AND SILVANA '83, JD '86 PASCUCCI

Research has the power to yield new ideas for relieving suffering in the world. That concept inspired Chris Pascucci '84 and his wife, Silvana '83, JD '86, to create an endowed fellowship for Harvard graduate students working on their dissertations—especially in fields that benefit society, such as microfinance and community building. "We wanted to help them explore their passions and pursue research that could greatly improve the lives of disadvantaged people everywhere," says Chris. The couple is excited to see how their gift will translate into hope for people who need solutions.

To read more, please visit www.alumni.harvard.edu/stories/pascucci.

JOHN CAREY PHD '79

History and business have long fascinated John Carey PhD '79. After earning a doctorate in history from Harvard, John chose to develop his financial skills and join Pioneer Investments, where he has managed the Pioneer Fund for many years. But his shift in career ambitions has not stopped him from helping others pursue their scholarly dreams in the humanities. John and his late wife, Harriet Stolmeier Carey '74, chose to support a PhD student in history through an immediate-use gift to the Graduate School Fund Fellows Program. "I was a scholarship and fellowship student myself from college on, and I've always felt it was important to give back," he says. "It's a kind of social contract between generations."

To read more, please visit www.alumni.harvard.edu/stories/carey.

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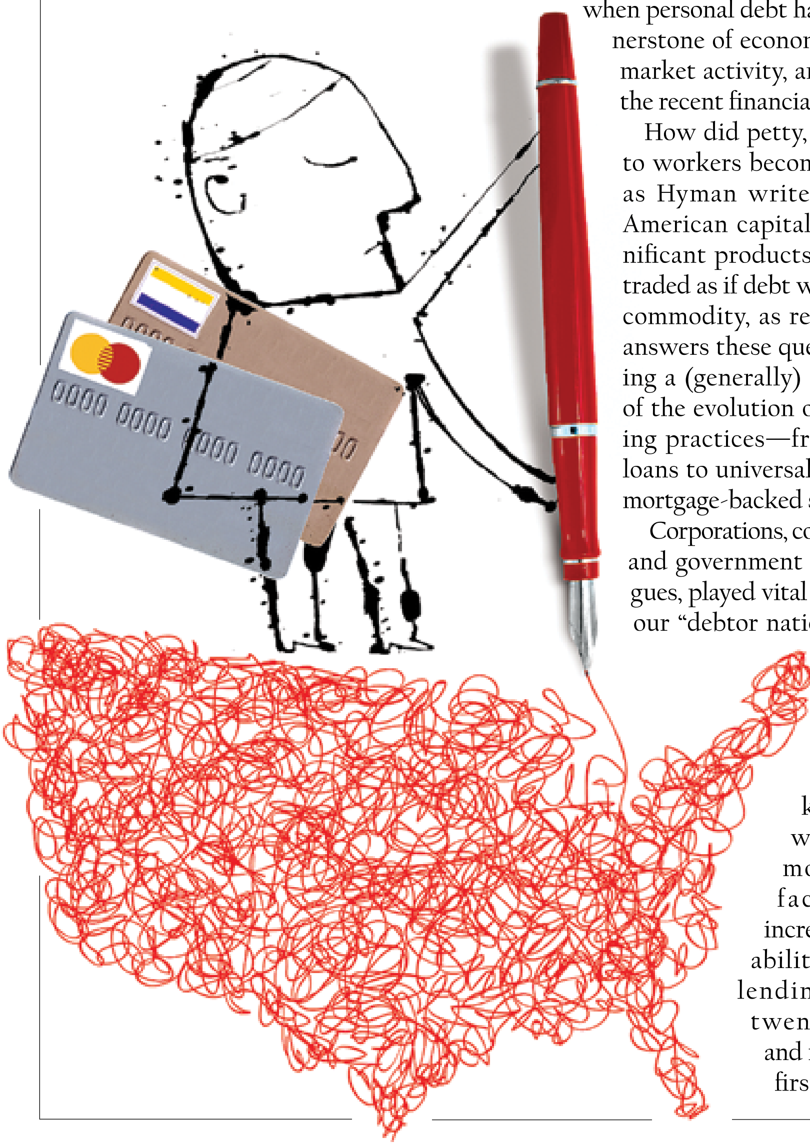
Devoted to Debt

The American love affair with credit—and the new realities of economic constraint and income inequality

by NANCY F. KOEHN

In the first quarter of 2011, the average American household carried $115,000 of mortgage, credit-card, and other forms of debt—a huge sum, but less (because of the recession) than the figure for the third quarter of 2008, when the average family owed more than $125,000 to financial institutions and other organizations. This enormous ocean of red ink has become big, big business. In both the go-go years of 2006 and 2007, for example, the nation's largest credit-card issuers earned more than $18 billion—more than Wal-Mart or Microsoft.

In *Debtor Nation: The History of America in Red Ink*, Louis Hyman, Ph.D., '07, reconstructs the history of personal debt in modern America. This is a fascinating, important, and at times ominous story. It begins around 1917, when personal indebtedness existed at the fringes of the economy, the province of struggling merchants and loan sharks, and ends in our own time, when personal debt has become a cornerstone of economic and capital-market activity, and the center of the recent financial crisis.



How did petty, scattered loans to workers become transformed, as Hyman writes, into "one of American capitalism's most significant products, extracted and traded as if debt were just another commodity, as real as steel?" He answers these questions by offering a (generally) careful analysis of the evolution of modern lending practices—from installment loans to universal credit cards to mortgage-backed securities.

Corporations, commercial banks, and government agencies, he argues, played vital roles in creating our "debtor nation"; so, too, did financial-product innovation and the evolution of debt markets. In different ways at different moments, these factors greatly increased the profitability of consumer lending during the twentieth century and into the twenty-first. This growing profitability was *not*, he writes, the result of a sinister cabal or conniving scoundrels, but rather of countless choices that lie at the heart of a market economy. "The same banal investment decisions—where can this dollar get the greatest return?" that "produced our nation's wealth-producing farms and factories also produced our omnipresent indebtedness."

The first half of the book examines the origins of installment loans, national mortgage markets, and credit cards. Although business owners historically extended informal loans to their customers, Hyman explains, most did so reluctantly. Recordkeeping was cumbersome. Butchers, bakers, and candlestick-makers lacked information about a given customer's finances, and few had excess capital to tie up in such loans. In the early 1900s, only self-financed companies such as Sears, Roebuck or Singer Sewing Machine could afford to offer installment-buying plans—and even they generally lost money on such loans, making the losses up on larger volumes and the economies of scale that powered their business models.

Louis Hyman, Ph.D. '07, *Debtor Nation: The History of America in Red Ink* (Princeton, $35)

In the 1920s, however, lending practices and attitudes began to change. One factor behind this shift was the emergence of the finance company, which first appeared in the automobile industry, to help dealers fund their inventories and later, to help customers who could not pay cash for a car. Over time, some of these companies began diversifying, buying up the consumer debt of refrigerator, radio, vacuum-cleaner, and other appliance manufacturers.

The breadth and magnitude of finance operations spread quickly, helping power both the mass production of durable goods and their consumption by millions of American families. By the end of the decade, companies such as General Motors and General Electric had absorbed retail finance as a core aspect of their businesses, and installment credit had spread throughout the retail world. Not surprisingly, collective attitudes toward credit began to shift. By the eve of World War II, a quarter of American families were using installment loans to buy cars and other consumer durables.

Illustration by Miguel Davilla

Off the Shelf

Recent books with Harvard connections

Constitutional Redemption: Political Faith in an Unjust World, by Jack M. Balkin '78, J.D. '81 (Harvard, $35). The author, a professor at Yale Law School, turns from questions of constitutional theory and judicial review to public attitudes toward the "constitutional project," and explores and critiques the "Great Progressive Narrative" that underlies Americans' story about their basic law.

Big-Time Sports in American Universities, by Charles T. Clotfelter, Ph.D. '74 (Cambridge, $29). Now a professor of economics, public policy, and law at Duke, Clotfelter takes advantage of that venue to explore his subject. Commercial athletics, he finds, has become a core function of the universities that host it—a fact "as unremarkable to most adults who were raised in this country as it must surely be strange to a first-time visitor from abroad."

The Sorcerer's Apprentices: A Season in the Kitchen at Ferran Adrià's elBulli, by Lisa Abend, A.M. '93, G '99 (Free Press, $26). A journalistic look behind the scenes at the famous restaurant whose proprietor inspired the School of Engineering and Applied Sciences' recent cooking class. You, too, can learn how to plate the artichoke rose.

Reasoning from Race: Feminism, Law, and the Civil Rights Revolution, by Serena Mayeri '97 (Harvard, $39.95). An examination of the connections between race and sex equality, civil rights and feminism—from Jim Crow to "Jane Crow"—by an assistant professor of law and history at the University of Pennsylvania Law School. Mayeri was a Ledecky Undergraduate Fellow at this magazine.

The Deal from Hell, by James O'Shea Harvard Kennedy School Fellow '86 (PublicAffairs, $28.99). The former managing editor of the *Chicago Tribune* and editor of the *Los Angeles Times* details the disastrous merger of those enterprises, and the even more destructive leveraged buyout of the Tribune Company, during troubled times for journalism. Useful background on the Nieman Foundation's new curator, Ann Marie Lipinski (see page 59), another *Tribune* veteran (and casualty).

Nancy Holt: Sightlines, edited by Alena J. Williams '98 (California, $49.95). A young curator (still a doctoral student at Columbia) presents, with others, a comprehensive look at the work of a monumental sculptor (*Sun Tunnels*) and installation artist who has also worked in photography, video, and film.

Near Andersonville: Winslow Homer's Civil War, by Peter H. Wood '64, Ph.D. '72 (Harvard, $18.95). A close reading of a rediscovered Civil War painting by Homer reveals deep meanings about the conflict, slavery, and race—from an enslaved black's perspective. The Nathan I. Huggins Lectures, delivered by the professor of history emeritus at Duke.

Strange New Worlds: The Search for Alien Planets and Life beyond Our Solar System, by Ray Jayawardhana Ph.D. '00 (Princeton, $24.95). A readily accessible account of the increasingly successful search for other planets, by a University of Toronto astrophysicist (and 2011-12 Radcliffe Institute fellow).

Divine Art, Infernal Machine, by Elizabeth L. Eisenstein, Ph.D. '53 (Pennsylvania, $45). A history, for our digital age, of the ambivalent attitudes toward printing and printers, beginning with the conflation of Gutenberg's partner, Johann Fust, with the necromancer "Doctor" Johann Georg Faustus. The author is professor of history emerita at the University of Michigan.

Modernist America: Art, Music, Movies, and the Globalization of American Culture, by Richard Pells, Ph.D. '69 (Yale, $35). America exports, and shapes, world culture—but the movement is reciprocal, as Pells, professor of history at the University of Texas at Austin, comprehensively demonstrates in this scholarly work. For instance, he notes, Aaron Copland, D.Mus. '61, George Gershwin, and Leonard Bernstein '39,

Winslow Homer, *Dressing for the Carnival,* 1877, one of the paintings examined in *Near Andersonville*

D.Mus. '67, followed Picasso, Duchamp, and Stravinsky in "intermingling elements from high and low culture, combining the sacred and the profane."

A Reforming People: Puritanism and the Transformation of Public Life in New England, by David D. Hall '58, Bartlett Research Professor of New England church history (Knopf, $29.95). We think of our Puritan forebears as, well… Puritan, conservative. In fact, the founders of New England created "churches, civil governments, and a code of laws" that marked them as "the most advanced reformers of the Anglo-colonial world."

The People's Republic of China at 60, edited by William C. Kirby, Chang professor of China studies and Spangler Family professor of business administration (Harvard Asia Center/Harvard University Press, $29.95 paper). Conference proceedings featuring a stellar lineup of expert China scholars (many from Harvard's faculties) on the country that has, for example, been on an increasingly accelerated march from 83 percent rural (in 1949) to two-thirds urban within the foreseeable future, with all that entails.

The making of national mortgage markets was a second key development—the result of government initiatives intended to expand home ownership and thus jump-start construction during the Great Depression. At the center of New Deal programs like the Federal Housing Administration (FHA) was a new instrument that enabled borrowers to repay their home loans with a long-term mortgage. This innovation was a decisive break from older, prevalent forms of mortgages by which borrowers took out loans for three to five years and paid back some or all of the principal within that time, refinancing or rolling over the balance when the loan came due. (The bank that had issued the loan could choose whether to renew the mortgage when the note came due.) The stock market crash brought such lending to a halt as nervous investors and bankers pulled their capital from the mortgage market, making refinancing impossible for many homeowners and triggering a wave of foreclosures.

The FHA aimed to guide private capital into a new, government-enabled market for home lending; public guarantees would undergird privately issued long-term mortgages that would be amortized as buyers paid back both principal and interest. If a buyer defaulted, the insurance program would repay the principal to the lender. Interest rates were regulated at levels below 5 percent. Lenders' profits were assured because virtually all risk had been transferred to the government.

These and other New Deal policies helped increase home ownership and revive the construction industry: in 1936, almost a half-billion dollars was lent in FHA-guaranteed mortgages; by 1939, about $4 billion in insured mortgages and home improvement loans were issued. As mortgage practices changed, Hyman writes, "the stigma of mortgage indebtedness receded over the course of the 1930s."

In the 1940s and 1950s, the growth of revolving credit laid the groundwork for the modern credit card. Revolving credit, in which buyers pay back a given amount over time with interest but without a specific end date, emerged in retailers' efforts to avoid World War II-related restrictions on installment lending. During and after the war, department stores and other businesses hustled to protect their sales, issuing an increasing volume of revolving debt to consumers in the form of charge cards. Merchants and manufacturers quickly recognized the resulting benefit: in the mid 1950s, to take one example, the Boston Store in Fort Dodge, Iowa, calculated that the average revolving-account customer bought 62 percent more than the average cash customer.

The proliferation of all this credit and the dependence it engendered—on the part of both businesses and households—had important consequences. Most noticeably, it helped fuel material prosperity for millions of middle-class consumers who could not otherwise have attained the trappings of "the good life" for which higher-income consumers paid cash. For most households, "credit had become an entitlement." Homebuyers, Hyman continues, "borrowed their mortgages, financed their cars, and charged their clothes." Between 1970 and 1979, the amount of debt outstanding tripled as buying and borrowing became "thoroughly entangled."

Hyman notes several times that the growth of credit between 1960 and 1980 occurred against the backdrop of large-scale economic change. As the U.S. economy transitioned from manufacturing to service provision—and, one might add, as stagflation and increased global competition challenged historically high levels of national prosperity—income inequality grew rapidly and the future of middle-class incomes, upon which so much of the postwar credit expansion had been predicated, became much less stable. In this context, the logic of borrowing against those future incomes "began to unravel."

Chapter & Verse

Correspondence on not-so-famous lost words

Jessica Pierce asks whether anyone can identify the origin of the expression "to die like an animal."

More queries from the archive:

A description of nationalism as "the religion of an extremely high percentage of mankind an extremely high percentage of the time."

"Good men and bad men/Lying in their graves—/Which were the good men/And which were the knaves?"

An original source for the motto "Adopt, adapt, and adept."

"If it is a university, it cannot be Catholic; if it is Catholic, it cannot be a university."

"The scent of woodsmoke in an April lane…"

A poem in which the poet (Robert Graves?) points with pride to his volumes of prose but will not say why he wrote them, lest he commit the absurdity of the man who bred cats because he loved dogs so much (or bred dogs because he loved cats).

Who coined the phrase "the moving edge"?

A musical satire on trendy clergymen, to the tune of Gilbert and Sullivan's "Tit Willow," with the refrain, "We're with it, we're with it, we're with it."

"What was Karl Marx but Macauley with his heels in the air?" (May-June). Dan Rosenberg located this remark by William Butler Yeats, first requested in the March-April 1995 issue, in the poet's collection *On the Boiler,* in the essay "Tomorrow's Revolution" (part iv, page 19), (Cuala Press, Dublin, 1939).

"What her rugged soil denies/The harvest of the mind supplies" (May-June). Andre Mayer and Dan Rosenberg tracked this reference from the March-April 1995 issue to the "sweet New England poet" John Greenleaf Whittier. The poem, titled "Our State" on page 114 of the *Complete Poetical Words of John Greenleaf Whittier* (1884), is described elsewhere as "Originally entitled 'Dedication of a School-house.' It was written for the dedication services of a new school building in Newbury, Mass."

Send inquiries and answers to "Chapter and Verse," *Harvard Magazine,* 7 Ware Street, Cambridge 02138, or via e-mail to chapterandverse@harvardmag.com.

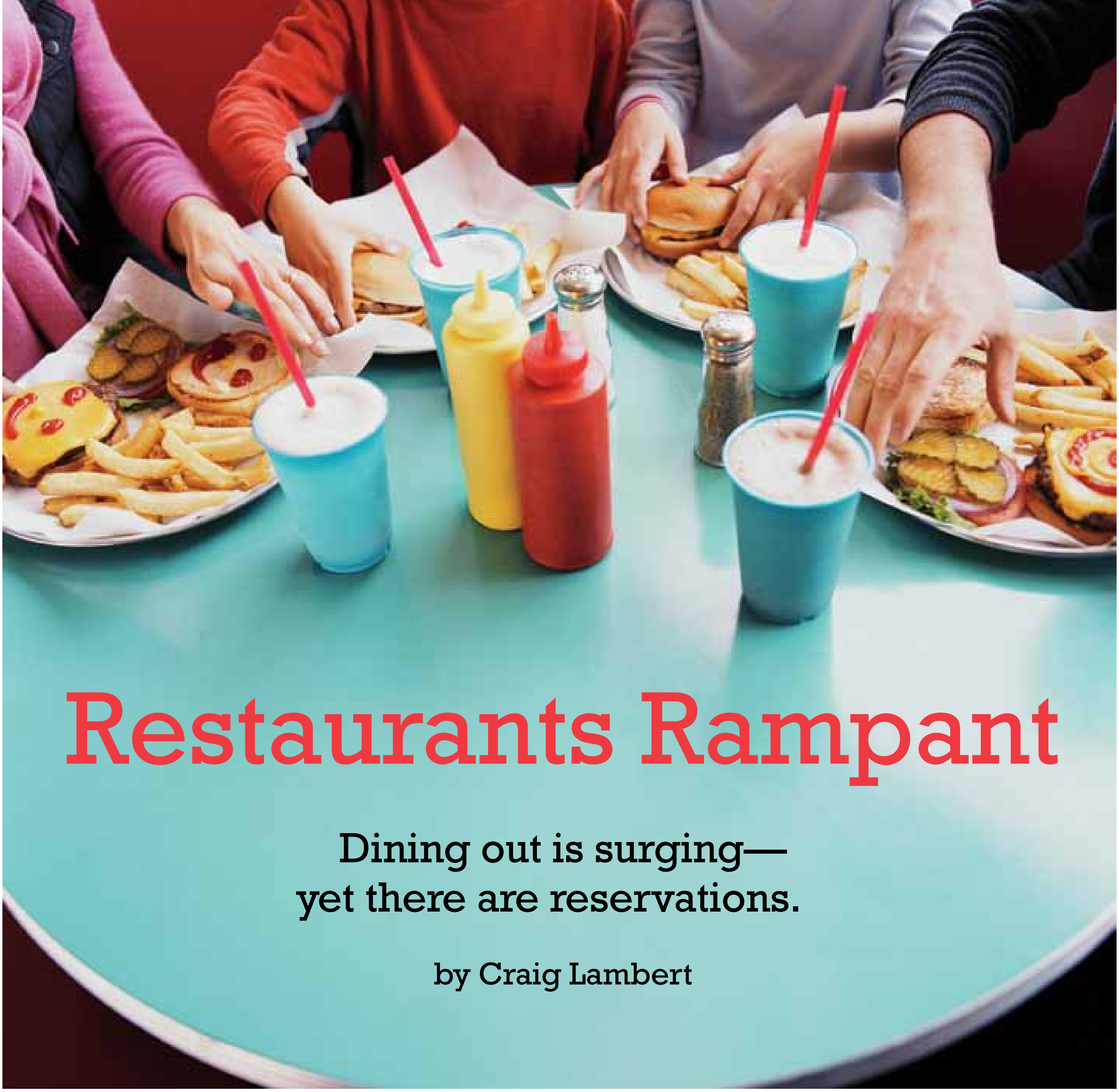
Income inequality grew rapidly and the future of middle-class incomes, upon which so much of the postwar credit expansion had been predicated, became much less stable.

The last chapters of the book examine how issuers, households, and government dealt with debt in an increasingly insecure economy. Hyman's explanation of the origins of mortgage-backed securities in the late 1960s, the collateralization of these assets, and the advent of subprime lending reads like an eerie prelude to the 2008 financial crisis. So does the history of home-equity loans, which consumers used to fund not only what they bought but also the credit-card debt (and attendant interest rates) they incurred when they originally purchased all kinds of goods and services. For their part, legislators and other policymakers (like the Federal Reserve) consistently "pushed credit to rectify income inequality. Credit," Hyman writes, "appeared to close the material gap between the American reality and the American Dream, but without rising real wages the debts remained."

The result of almost a century of financial innovation, intermittent government policymaking, and increased real borrowing by households is our current economy—critically dependent on credit in a volatile world. "The relative danger of relying on consumer credit to drive the economy," Hyman observes, "remains a macroeconomic puzzle to be solved." Will we invest the profits from borrowing productively to create jobs and sustainable purchasing power on the part of most households? Or will we distribute economic returns to a small number of Americans at the top of the food chain and then lend those profits to everyone else in the form of credit-card debt and mortgage-backed securities? "American capitalism," he concludes, "is America, and we can choose together to submit to it, or rise to its challenges, making what we will of its possibilities."

Hyman has written a hefty book on an important subject. One closes its covers more knowledgeable and more thoughtful about the role of credit and our current economy. But such understanding does not come cheap. The dense chapters and sparse, at times inconsistent, statistics make high demands on the reader. And Hyman's reconstruction of complex financial history, though incisive, would have been stronger with additional attention to how consumers viewed the tentacular growth of credit in their lives. But despite these shortcomings, this is a book well worth your time and energy.

Historian Nancy F. Koehn is Robison professor of business administration. Her most recent book is The Story of American Business: From the Pages of the *New York Times.*



Restaurants Rampant

Dining out is surging— yet there are reservations.

by Craig Lambert

In 2003, Ferran Adrià appeared on the cover of the *New York Times Magazine,* becoming only the second Spaniard, after Salvador Dalí, to do so. Like Dalí, Adrià is both an artist and a kind of surrealist. His restaurant, elBulli, on the Costa Brava north of Barcelona, has attracted every honor a chef could hope for. In 1997 *Guide Michelin* awarded it a three-star rating, making it then only the third such restaurant in Spain. (There are only 96 Michelin three-star restaurants in the world today, and just nine in the United States.) The industry benchmark, *Restaurant Magazine,* declared elBulli the top restaurant in the world a record five times between 2002 and 2009.

Open just six months a year—Adrià and his colleagues devote their annual "downtime" to creating an entirely new menu—elBulli seats only 8,000 diners annually. Yet a reported two million e-mails flood in on the single October day that the restaurant accepts reservation requests. (Adrià has announced that elBulli will close on August 1, to reopen in 2014 as a creativity center.)

Deploying elements like liquid nitrogen, Adrià shatters cooking conventions and analyzes recipes with an exactitude that rivals science. (In fact, after a 2008 guest lecture at Harvard, this proponent of "molecular gastronomy" signed an agreement for a collaboration with Harvard physicists and engineers—see "The Harvard Center for Gastrophysics?" March-April 2009, page 13—which led to an undergraduate course on the science of cooking.)

His work has intrigued other scholars as well. Consumer-behavior specialist Michael Norton, associate professor of business administration, wrote (with Julian Villanueva and Luc Wathieu) "elBulli: The Taste of Innovation," a 2008 Harvard Business School teaching case on Adrià's eatery. "High-end consumers are interested in eating as an experience," Norton explains. "There's a rise in top restaurants that cater to people wanting not just a

Photograph by Nico Kai/Iconica/Getty Images great steak, but outlandish food, something that no one else in the world offers. For wealthy people, this is part of a broader trend, a shift from buying *stuff* to buying *experiences*: travel, instead of big cars. At elBulli, the food is extraordinary but the experience is even more extraordinary."

That experience starts a year before the meal, when a diner wins the lottery and receives a reservation, "so you have a year of anticipation," says Norton, who has dined there. From Barcelona, there's a two-hour drive through sparsely populated mountains—"You can get lost," he reports. On arrival, Adrià personally greets his guests, who receive a guided tour of the kitchen, which is larger than the dining area. "Then you sit down and have this amazing, crazy meal," Norton says. "You drive back late at night—and tell people about it for the rest of your life."

Adrià has little interest in preparing the world's best bouillabaisse; what *would* interest him might be turning the ingredients of bouillabaisse into a pyramid of foam that tastes exactly like bouillabaisse should. He has served ravioli made of transparent agar-agar jelly rather than pasta, putting the filling on view. For the "nitro caipirinha" cocktail, a waiter trundles in a trolley with liquid nitrogen (at -196 degrees Celsius), which precedes the cocktail into the drinking vessel and instantly freezes it to a sorbet: the guest then *eats* the cocktail with a spoon, before it melts.

ElBulli may be the apotheosis of restaurant dining as a form of theater: foodstuffs become the raw material of art, not nutrition. The eating experience decouples itself almost entirely from food's functional attributes: sustenance, nourishment, health. Though the food is unquestionably delicious, even the sensations of taste and texture may knuckle under to the goals of displaying the chefs' imaginations and startling the diner with a meal's originality. "Creativity comes first," Adrià says, in Norton's case study. "Then comes the customer."

Entrées and Ego

"The advent of celebrity chefs and cooking-as-entertainment have influenced the way people eat in restaurants, and made chefs a lot more self-conscious," says Mollie Katzen, the Berkeley, California-based author of the *Moosewood Cookbook*, who is something of a celebrity chef herself, having hosted cooking shows on television and sold more than six million cookbooks under 15 different titles. "It's not that I don't enjoy a good meal in a restaurant—I do. But with chefs trying to make names for themselves—it's *so* competitive—a lot of times it's about trying to be clever, rather than just trying to be delicious. I had a meal the other day in a new restaurant here that's getting a lot of press for all its local sourcing and so on—and the food was *extremely* precious, very fussed-over and complicated. There was a lot of discussion with the waiter about what you were getting; it was a big, ornate deal. And it didn't taste all that good! Just give me a beautiful, perfectly prepared salad. I don't want a *cerebral* experience in a restaurant—I'm not going for entertainment."

Since 2003, Katzen has been a consultant to the Harvard University Dining Services (see "Delicious Minimalism," September-October 2006, page 32) and is co-creator of its Food Literacy Project. She is also a charter member of the Harvard School of Public Health Nutrition Roundtable. "I love going to an ethnic hole-in-the-wall that serves, say, a beautiful Vietnamese *pho*," she says. "But for American, nouvelle, fusion, French, Italian, it will still be a six- or eight-ounce hunk of animal protein in the center of the plate and some token vegetables. I want a *maximum* of three ounces of meat or fish and at least 80 percent of my meal to be plant foods. Entrées are never less than $25 anymore, and I often end up feeling I had way too much salt. Insecure chefs salt up the food—I've had to send $30 plates back because the food was so salty that I found it inedible. It just doesn't feel that *honest* to me; the creativity is a little too fraught. There's a lot of ego on that plate.

"I used to eat out a *lot*, and now I eat out very, very little," she continues. "Eating a good, simple, home-cooked meal is almost always my preference. Every now and then I think, 'I'll give it another chance'—and then I do, and it confirms that I don't want to keep doing this. If I'd eaten at home it would have been healthier, simpler, and *way* more what I want it to be."

Moms with Menus

The simple fact, though, is that Americans are eating more of their meals away from home. The National Restaurant Association reports that the fraction of Americans' food budgets spent in restaurants has about doubled since 1955, from 25 to 49 percent. Restaurant industry sales have zoomed up from $42.5 billion in 1970 to an anticipated $604 billion this year: adjusted for inflation, a 2.5-fold increase.

Those restaurant meals are in large measure replacing home-cooked ones—a transformation that affects our health, weight, finances, and family lives. Yet "home-cooked" retains an irreducible cachet; its positive associations are so strong that restaurant menus often tout "home-cooked" items that are, of course, nothing of the sort.

"Professionally cooked" is becoming the norm. "There's a convergence of factors," says Walter Willett, Stare professor of epidemiology and nutrition and chairman of the department of nutrition at the Harvard School of Public Health (HSPH). "Americans are more time-pressured than before and most families have two people working outside the house—there isn't somebody at home who has time to shop and prepare meals. As real wages have gone down, Americans have maintained a fairly flat family income by putting another person into the workforce, and that's cut down on discretionary time in a major way."

"I have friends in their forties who grew up right at the height of Mom never being in the kitchen," says Katzen, who co-wrote *Eat, Drink, and Weigh Less* (2006) with Willett. "They didn't see their mothers in the kitchen in any meaningful way—it wasn't an integral part of life in the home. So they were opening a lot of cans, or buying fast food. In my [baby-boom] generation, our mothers *lived* in the kitchen; that's where they parked themselves during the day and held court. In my family, at dinnertime, the kids would all help with the final steps: setting the table, helping Mom get the food on the table, helping clear afterwards. It was a team activity, part of what we did together as a family. My guess is that an equally, if not more, common way to gather around food now is to sit around the TV and watch *Top Chef*."

Demographic changes have no doubt affected eating patterns. Compared to the 1950s, there are now relatively more divorced adults, more single-parent and single-person households, and more two-income households whose earners haven't time to cook dinner. All these groups may eat out or order take-out meals for

Fast food is the "enemy of home cooking. It's definitely easier, probably cheaper, and unfortunately a kind of food many have gotten used to eating....You get addicted to the high fat and sugar content," like a drug.

Food writer and editor John "Doc" Willoughby in one of the test kitchens at the *Cook's Illustrated* headquarters

convenience and/or conviviality. Technological innovations such as the microwave oven, and the increased availability of salad- and entrée-bar fare, also enable people to quickly prepare meals at home that are not "home-cooked."

Restaurants have also changed vastly since the 1950s. About half are now fast-food establishments, a category that has burgeoned in recent decades. Adding table service, as at Denny's or International House of Pancakes, moves establishments up a notch to "family dining." Add a liquor license (and omit breakfast service) for the "casual dining" category, where average 2009 checks ranged from $11 to $20 per person in the "Big 7" chains: Applebee's, Red Lobster, Chili's, Olive Garden, Ruby Tuesday, Outback Steakhouse, and TGI Friday's. At the pinnacle of the restaurant pyramid, "fine dining" draws loads of attention on food programs but only 1 to 5 percent of the market.

Fine-dining places typically serve only dinner, mid-scale eateries offer lunch and dinner menus, and low-end places cook all three, or just breakfast and lunch. Time spent at a restaurant rises with the bill. Gourmets and gourmands linger hours over multicourse French dinners, but at fast-food eateries, customers may never even set foot inside—they simply buy meals at a drive-through window.

The growth of fast food has clearly increased the number of meals eaten out, if not their unit cost: eating breakfast at a restaurant was once a special occasion, but now McDonald's tries to persuade commuters to stop by every morning for a coffee and Egg McMuffin. The pace of meals, and their circumstances, can influence menu offerings. "Urban sprawl and urban flight have made commute times longer, squeezing out time for breakfast at home," says the business school's Norton. "People leave for work at 6 A.M. and eat in the car. Food design takes this into account: can this be eaten in the car? That's one reason we see so many sandwiches and bite-sized foods like Chicken McNuggets appearing in the marketplace in recent decades." Cizik professor of business administration Clayton Christensen notes that in designing milkshakes for commuters, vendors may choose an optimal thickness based, not on taste or texture, but on the duration of the average commute, which dictates how long the milkshake should last before melting.

Fast, Cheap, and Out of a Bowl

In general, restaurant food is far costlier than homemade. Katzen points out that it is "incredibly economical to prepare your own meals. You can spend $1.50 to make your own sandwich, or buy one for $10. It's easy to spend a couple thousand dollars a year on lunch sandwiches!"

Yet at the fast-food end, economies of scale and efficiencies of mass production mean that "you cannot cook more cheaply than a McDonald's," says John "Doc" Willoughby '70, for nine years executive editor of *Gourmet* magazine, and currently executive editor for publications at Boston Common Press, publishers of *Cook's Illustrated*. "Fast-food joints are the enemy of home cooking. It's definitely easier, probably cheaper, and unfortunately a kind of food that many have gotten used to eating. There are studies now showing that if you eat a constant diet of fast food, you get addicted to the high fat and sugar content of it, just as if it were a drug—so food without that content doesn't satisfy you."

Those same economies of scale that help restaurant chains keep prices down can also make food a generic commodity, with a consequent compromise of quality. Locally owned eateries can more easily buy fresher, local ingredients. "We did a story in *Gourmet* about small family-owned restaurants being put out of business by chains," Willoughby says. "You need community support for these restaurants, even if they cost a bit more than the chain. If a restaurant is owned by someone in your town, if you can afford it, you should go there."

There is also the health fallout from fast food to consider. "Unfortunately, [fast food] has had an adverse effect on nutritional status and the obesity epidemic," says Willett. "It's not that eating out is a problem—it's the *food* people eat in restaurants. Due to our dominant Northern European eating culture, Americans value quantity over quality: if you get a bigger serving, that's value."

In 2002, researchers Lisa Young and Marion Nestle of New York University reported that restaurant portion sizes began

growing in the 1970s, rose sharply in the 1980s, and "have continued in parallel with increasing body weights." One reason KFC can undersell the home cook (though their labor and real-estate costs likely outstrip those for foodstuffs) is that "the basic ingredients of unhealthy food are incredibly cheap," Willett explains. "White starch and sugar cost next to nothing. So you can make huge serving sizes—30-ounce sodas, for example—and people think they're getting value."

The large portions often consist of cheap items: sugars, starches, and refined carbohydrates like pasta, all highly caloric. A 2002 report from the U.S. Department of Agriculture indicated that in the 1994-96 period, Americans consumed 25 percent of all meals and snacks—but 32 percent of all calories—away from home. Upscale eateries, too, dish out ample doses of costlier, but still fattening, ingredients. "[A]t your favorite restaurant, chances are, you're eating a ton of butter," wrote chef Anthony Bourdain in his 2000 memoir, *Kitchen Confidential.* "In a professional kitchen, it's almost always the first and last thing in the pan....Believe me, there's a big crock of softened butter on almost every cook's station, and it's getting a heavy workout."

Big portions mean big consumption. "People eat what is on the plate," says assistant professor of business administration Jason Riis, a consumer psychologist who is studying overeating. "It is tough to take the rest home." He cites an experiment by food psychologist Brian Wansink, author of *Mindless Eating,* who experimented with a "bottomless" bowl of soup (unobtrusively replenished by a pipe hidden beneath the table) at the Cornell University Food and Brand Lab. Subjects thought they ate the same amount as when using a normal soup bowl, but in fact ate 73 percent more. "We use spatial cues as to when to stop eating," Riis says. "If there is more on the plate, we eat more."

The current American epidemic of obesity (its prevalence has *doubled* since 1980) owes much to large portions—especially sweet, liquid ones. "Sugared beverages are the single most important source of needless calories in the U.S. diet," says Willett. "They're 7 to 9 percent of consumption. If you could get rid of those, almost half of the obesity epidemic would disappear."

Riis and his colleagues have tried asking patrons in fast-food eateries if they might like to try "downsizing" instead of "supersizing" their meals. Even without any price discount, about a third of the customers were willing to take smaller portions—an option not usually offered. Riis's investigation suggests that offering varied portion sizes could reduce restaurant expenses while still satisfying customers.

The danger as cooking becomes glamorized is that, just as with restaurant meals, it will be turned into another form of theatrical entertainment.

Home on the Range

Ironically enough, along with the burgeoning of restaurants has come a simultaneous revival of the domestic culinary arts. That movement may have begun with Julia Child, but now embraces thousands of books, magazines, and 24-hour television outlets like the Food Network, legions of websites, gourmet foodstuff suppliers, and grassroots savants in their home kitchens. Call it the Williams-Sonoma revolution: by any name, the new passion for good home cooking may represent a countertrend to the influx of restaurants.

Authors like Katzen are pushing back against the dining-out juggernaut. In her most recent cookbook, *Get Cooking* (2009), she wrote, "Somehow, as our options have increased—from restaurants and take-out to more and more frozen heat-and-eat options of every kind—the fine, ancient craft of cooking has become something of a lost art." For her, cooking "is a life skill, our birthright as human beings: knowing how to cook and feed ourselves. It connects you back to yourself and to the community. My parents looked on getting a driver's license not as a privilege but a responsibility. I feel the same way about cooking. It becomes a whole craft: a skill that forces you to plan, to concentrate, to execute, to put events in a certain chronological order. It keeps your mind

Fresh from the backyard: Mollie Katzen in the garden at her home in Berkeley, California

Photograph by Lisa Keating Photography.com sharp. Cooking is a meditation."

The danger as cooking becomes glamorized—producing rock-star chefs and glitzy television series—is that, just as with restaurant meals, cooking will be turned into another form of theatrical entertainment. Contemporary food television sets a different goal from its forebears. The earlier generation of cooking programs was instructional, attempting to teach viewers the skill, Willoughby says. Furthermore, "Julia Child is very unintimidating. She drops things, forgets things, she makes mistakes, and tells you it will all come out OK. But today, most of food television is *not* instructional. Viewers are just *watching* a talented chef cook, and getting a vicarious experience of cooking. It's like a celebrity reality show. These are professional chefs doing things in the kitchen that you *cannot* do—and that's not what home cooking is about."

Spectacularly entertaining gourmet shows can thus become an enemy of home cooking by implicitly suggesting that "everything has to be *perfect*," Willoughby declares. "Then people start feeling that they are unable to cook well—so they're not going to cook at all. People have become very intimidated by cooking, and they shouldn't be. If you publish a recipe with a mistake in it, you very rarely get letters saying, 'You screwed up this recipe.' What you get are letters saying, 'I made a mistake somehow when I made this—can you tell me what I did wrong?' Today there's a supposition on most people's part that they don't know how to cook, and therefore it's their mistake."

Thus, a central challenge for home-cooking advocates is to give people confidence that—much of the time, anyway—they can make better food at home than they are likely to get in most restaurants. "There will always be a future for home cooking," Willoughby says, "because there are people who like to cook, and people who *have* to cook. Plus, it has a social payoff: cooking for yourself or your family leads to social cohesion. And it can be fun!" *Cook's Illustrated*, the magazine Willoughby works on, and the related PBS television show, *America's Test Kitchen*, stick to practical matters: "How do I make mashed potatoes so that they come out every time the way I want them?" as he puts it.

To reap the rewards of home cooking demands an investment of the same factor whose scarcity helped fuel the rise of restaurants: *time*. "It bothers me when people say it doesn't take any more time to cook at home than to eat out," says Willoughby. "That's not true. It *does* take more time: you have to shop, for one thing. But it's worth it: you get a better result. You can *do* this."

The underlying fact is that there is always enough time to do the things we set as priorities. "There's something about our culture: people are willing to spend an unmeasured amount of time sitting in front of the TV and passively taking in food as entertainment," says Katzen. "But God forbid taking 20 minutes to *cook*. I don't know anybody who keeps track of the amount of time they spend cruising around online and reading blogs. But people are very resistant to the amount of time it takes to cook something. They have to understand that the point of cooking is not to see how little time you can spend doing it."

Craig A. Lambert '69, Ph.D. '78, is deputy editor of this magazine.

Chef's Knives and Cardiologists

"I come from three generations of Jewish bakers," says David Eisenberg, Osher distinguished associate professor of medicine. "I grew up cooking and with a great appreciation for food as a powerful, celebratory aspect of life. We forget that at our peril." Eisenberg (see "The New Ancient Trend in Medicine," March-April 2002, page 46) sees himself as an ambassador between the food and culinary community and the medical profession, which is sworn to prevent, treat, and manage disease. "I think the two groups need to have a much closer relationship," he says. "And teach one another, and create a united front."

To that end, Eisenberg is a prime mover behind the annual "Healthy Kitchens, Healthy Lives" (healthykitchens.org) course that the Medical School's Osher Research Center offers in partnership with the Culinary Institute of America (CIA). For four days each April, at the CIA's facility in Napa Valley, California, 400 healthcare professionals, 65 percent of them physicians, convene to hear restaurant chefs and cookbook authors like Mollie Katzen explore the subtleties of legumes, vegetables, and spices; learn about menu planning and the relationship of whole grains to blood glucose levels; and savor some highly flavorful, healthy meals. Much of the food they cook themselves; it's a hands-on course taught by professionals. "We have some of the most masterful chefs in America," Eisenberg says, "showing us how to make, say, five different delicious dishes in five to 10 minutes apiece."

There are sessions on prescribing exercise and counseling patients on nutrition, but the main thrust is leading by example. "We know for a fact, based on medical literature, that clinicians' personal behavior is the strongest predictor of their providing advice on that same behavior to patients," Eisenberg says. "Doctors who have quit smoking, who exercise, wear seatbelts and sunscreen, counsel their patients more on these things. What if physicians accepted it as part of their responsibility to think about food differently?"

"Most of these clinicians don't know cooking skills," he reports. "They barely know how to hold a knife—we've had to create knife-skill workshops. If you can't use a knife in the kitchen, and if your parents and grandparents never taught you to cook, you're really starting from scratch. Most college students don't know how to do it, either. We've had two generations of women who became working parents and so were not at home cooking; if women were the predominant teachers of cooking skills, we now have 20 to 30 years of people who never got those skills."

Teaching healthcare professionals about culinary matters is one part of a fabric of change that, Eisenberg says, will have to include K-12 education, new business ventures, and scientific evidence of the significant clinical benefits of eating well. "Restaurants are not going to stop selling stuff that makes them money," he says. "Restaurants are just serving the market. Once the demand shifts, so will the food supply."

Elkhorn coral, Carysfort Reef South, Florida, 1970 and 2010

A brain coral, four feet in diameter, against a backdrop of pillar coral, Rhone Reef, British Virgin Islands, 1989 and 2011
©Armando Jenick

Reefs at Risk

The world's most fragile marine ecosystems are in decline.

by JONATHAN SHAW

Contemporary photographs by DAVID ARNOLD

SHALLOW-WATER coral reefs are best known for their beauty, and as home to rafts of colorful fish. That these complex ecosystems support a quarter of *all* marine species is less commonly appreciated. If the nutrient-poor open oceans of the world have been compared to lifeless deserts, reefs—which grow beneath just one-tenth of 1 percent of the ocean's surface—are more often compared to rainforests. That's not only because of the biodiversity they host, but because of their important role in "primary production": the utilization of chemical or light energy in the conversion of inorganic into organic matter that forms the base of the food chain. "Primary productivity in an acre of coral reef is actually *greater* than in an acre of tropical rainforest," says professor of biology Robert Woollacott, curator of marine invertebrates in the Museum of Comparative Zoology. The nutrient-rich waters surrounding coral reefs support a large population of fish that are captured for the global trade that stocks both restaurants and aquaria worldwide, and also represents an important food source for marine predators and birds.

The fact that reefs everywhere are threatened, therefore, is more than just a sad footnote to the ecological changes that are taking place on land. When a reef goes, it takes a key part of the global marine ecosystem with it.

Photographer David Arnold '71, who in 2005 documented melting glaciers (see "A Melting World," May-June 2006, page 36), has now embarked on a project to document the decline of shallow-water coral reefs. Working with some of the pioneers of underwater landscape photography, Arnold this year visited the same places they had photographed years before. The earliest images reproduced here were made in 1970 by freelance photographer Jerry Greenberg (who, at 83, appears in the Arnold

A bed of staghorn coral, Carysfort Reef (six miles east of Key Largo), 1970 and 2010

Wreck of the *Rhone*, British Virgin Islands, 2005 and 2011
©Jim Scheiner

photograph on the previous page (lower right), carrying a print of his original shot); the most recent of the "before" photographs in this series from Key Largo and the Caribbean were made in 2004, just seven years ago.

Unlike glaciers, which melt or freeze according to the temperature, coral reefs are not simple. "It's death by a thousand cuts," says Arnold. Threats can be local or global, and are at least in part the direct or indirect result of human activity. Ocean warming, high-intensity storms, sedimentation, nutrient runoff, and overfishing can all destroy a reef.

Coral grows in the presence of a captive photosynthetic organism called a dinoflagellate; its pigments give the coral some of its color, and it provides the coral with sugars that enable it to grow. If that relationship breaks apart—in response to heat stress induced by a change in sea-surface temperature, for example—the coral is said to bleach; it will die and break apart if not repopulated by another dinoflagellate.

Global warming is thus a notable threat to coral reefs right now. Heat stress also makes coral more vulnerable to bacterial and fungal diseases. Meanwhile, rising levels of atmospheric carbon dioxide, which are making the ocean less alkaline, could hamper many marine organisms—including coral and algae, echinoderms, and molluscs—from forming their normal skeletons, which are made of calcium carbonate, a substance that dissolves as pH drops.

Other threats to coral include overgrowth by algae, which

Pillar and other corals, Rhone Reef, British Virgin Islands, 2005 and 2011
©Jim Scheiner

thrive in the warm, sun-drenched seas within 20 to 25 degrees of the equator where shallow-water corals grow best. The fact that algae grow faster than coral makes reefs vulnerable to ecosystem disruption. Left unchecked by herbivorous fish or sea urchins, the algae smother entire reefs.

As the human population increased in the Caribbean, for example, local fishing depleted the stocks of herbivorous fish to the

point that they were "no longer able to do their job in the ecosystem of keeping algae under control," Woollacott explains. That left only sea urchins to eat the algae. When a massive die-off of sea urchins around Jamaica took place after a 1982 El Niño event (El Niño weather patterns raise regional sea-surface temperatures) the algae, unchecked, overran reefs there. Coastal nutrient runoff, by stimulating algal growth, can have a similar effect.

In the Philippines and Indonesia, in particular, dynamite fishing—"The idea is to create a shock wave that will stun fish," Woollacott explains—threatens the very fabric of reefs by breaking them apart. And in Australia, the Great Barrier Reef is being attacked by crown-of-thorns starfish, which eat coral. ("One of the starfish's few predators," says Woollacott, "is a very large gastropod mollusc called Triton's trumpet, which is valued by people who like to put seashells on their coffee tables.") At least, he notes, the starfish populations tend to come in bursts, and then crash naturally.

"Without coral," Woollacott points out, "you don't a have coral-reef ecosystem," one of the most "visually spectacular ecosystems in the sea on Earth. You don't have the beautiful fish, you don't have the diversity of molluscs. What coral provides is heterogeneity in the environment, both in terms of food sources and with the complexity of the three-dimensional physical habitat in which large numbers of species of different organisms can coexist and interact to form a complex ecosystem." Coral reefs protect coastlines, generate hundreds of billions of dollars in annual revenue, and, according to the Planetary Coral Reef Foundation, provide the basis for 10 percent of the world's diet. In Earth's oceans, they are the charismatic canaries in a coal mine—10 percent have already been lost, and an estimated 60 percent more are at risk. These photographs provide a glimpse of one possible future for these fragile gardens of the sea.

Mary Costelloe Berenson

Brief life of a Renaissance scholar: 1864-1945

by DIANE E. BOOTON

"When Bernard Berenson presented to me a letter of introduction from an old college friend and was invited to visit my family at our house in the country at Fernhurst in England, his visit was like a chemical reaction." In 1890, Mary (Smith) Costelloe was bored with life and her husband of five years, and avidly welcomed her guest's enthusiasm for art and culture. Meeting the young scholar, a Lithuanian Jew recently graduated from Harvard, stirred giddy, girlish feelings that the future Mrs. Berenson recounted years later.

The daughter of Philadelphia Quakers, she had attended Smith College and then the Harvard Annex (later Radcliffe College) as one of its first eight students. She studied Berkeley, Hegel, and other philosophers, and recalled how once, after hearing the English art critic Edmund Gosse mention the "sacred word *Botticelli*" during a Harvard lecture, she looked at her brother, essayist Logan Pearsall Smith, "with eyes brimming with emotion and excitement," and exclaimed: "Oh Logan! We are at the very centre of things!"

That fall of 1884, Mary Smith met Frank Costelloe, a visiting Irish Catholic barrister nine years her senior who seemed her ideal; she swiftly accepted his proposal of marriage and they wed in London the following September. "I had taken it for granted," she wrote, "that philosophy and philanthropy, and English politics through which philanthropy could be most effective, were the only rational pursuits of human beings and I fully meant to dedicate myself to them, but when I got really into their toils they became dust and ashes in my mouth." After several years focused on Frank's activities, with one young child and another on the way, she confided to her journal that hers had become a one-sided marriage, leaving no time to complete her education.

When Berenson arrived that day for dinner, his hostess's horizon expanded: "When this beautiful and mysterious youth appeared, for whom nothing in the world existed except a few lines of poetry which he held to be perfect and the pictures and music he held to be beautiful, I felt like a dry sponge that was put into water. Instinctively I recognized that those were the real values for me, however wicked and self indulgent they might be." Though she learned later that "he thought my conversation very silly, but my pink satin dress very becoming," she concluded, "[W]hen I was brought into contact with a brilliant, cultivated (and I must add handsome) contemporary who was not concerned with the Kingdom of Heaven, but passionately loved the earth and the beauties thereof, I felt that he possessed the key that would give me the entrance into a garden where I could live freely and be happy."

There followed visits to picture galleries with Berenson, correspondence, and trips to Florence and Rome, chaperoned by her husband, until she decided in August 1891 to spend a year in Italy learning about art from Bernard. Upon her return to England, she asked for a divorce, which Frank refused. Separation meant leaving their two daughters in his care; though she had mixed feelings about child-rearing, Mary felt torn at having to choose "between being a person and being a mother." Even so, and despite society's disapproval, she returned to Bernard in Italy to continue her study of Renaissance painting. (Only after Frank died in 1899 were they able to marry.)

She began writing art-historical pamphlets and scholarly articles, sometimes under the pseudonym Mary Logan. In 1894, she co-wrote *The Venetian Painters of the Renaissance* with Bernard, although—at her mother's insistence—she asked the publisher to omit her name as coauthor. Other publications followed, on individual artists as well as Italian schools of painting. These became quasi-textbooks for the emerging discipline of art history in the United States, and over the years, Mary secured her own reputation as a scholar and connoisseur of Italian Renaissance painting.

The Berensons' lives and their study of art together are well known, including their extensive picture-dealing while working as intermediaries for art dealers, including the unscrupulous British dealer Joseph Duveen, and for wealthy collectors such as Isabella Stewart Gardner in Boston. Well known, too, were their ardent love affairs, which they dissected seemingly *ad infinitum* to each other until Mary tried (unsuccessfully) to throw herself out of a window in 1918 upon learning of yet another liaison on Bernard's part.

As his wife and business partner, Mary was one of the most significant influences on Bernard Berenson's career. Throughout their marriage of more than 50 years, even though she complained of his violent rage and his "slipshod sentences" as a writer, Mary never lost her admiration for his keen knowledge of art, connoisseurship, and culture. He continued to reawaken the sensation she reported about their first meeting: "At last, I felt, I really *was* at the centre of things, not sitting on a bench in Boston listening to a lecture, but partaking in imagination at least, of the real feast."

Diane E. Booton is an art historian and a specialist in the history of the book. *The quotations in this article are reprinted, with permission from the Camphill Village Trust, from an undated autobiographical narrative by Mary Berenson preserved among the Berenson family papers at Houghton Library (MS Am 2013).*

Mary and Bernard Berenson in the garden of her mother's country house near Fernhurst, England, 1898
Reproduced by permission of the Berenson Library, Villa I Tatti–Harvard University

FORUM

TIME to ELECTRIFY

Reducing our dependence on imported oil—while addressing the threat of climate change

by MICHAEL B. McELROY

THE RECENT SPIKE IN OIL PRICES, to more than $100 per barrel—and the resulting, predictable outcry over the return of the $4 gallon of gas—have prompted hurried responses from policymakers in Washington, eager to do something about constituents' economic fears. We have seen this movie before—from the 1973 OPEC oil embargo to the 2008 run-up in costs to nearly $150 per barrel, before the world economy crashed and demand for petroleum-based fuels shrank. Throughout those nearly four decades of roller-coaster oil prices, the United States has accomplished relatively little in the way of more effective energy policy—and virtually nothing in terms of addressing the rising threat of climate change, which is tied to the emissions produced by burning fossil fuels. Perhaps now we can begin a debate that holds serious promise of making needed gains on both fronts: a more economically sensible energy policy that puts us on a much sounder footing to reduce greenhouse-gas emissions.

The Climate Change Context

THE OBAMA ADMINISTRATION came into office with ambitious plans to deal with the challenge of climate change. The president proposed that the United States reduce annual emission of climate-altering greenhouse gases by 14 percent by 2020, and by 80 percent by 2050. The House of Representatives, then controlled by the Democratic party, took an even more aggressive stance: the comprehensive Waxman-Markey bill, which narrowly passed the House (219-212) in June 2009, would have required the nation to cut emission of greenhouse gases by 3 percent in 2012 relative to 2005, by 17 percent by 2020, by 42 percent by 2030, and by more than 80 percent by 2050. But the Senate failed to act on this initiative, and in the current political context, prospects for U.S. climate-change legislation are dim at best.

Earlier this year, the House, now under Republican control, in a largely party-line vote (244-179) went so far as to decree that the nation should suspend its support for the periodic international assessments of climate science conducted by the Intergovernmental Panel on Climate Change (IPCC). There is an irony to this development. IPCC was established under the UN Framework Convention on Climate Change (UNFCC) negotiated in 1992 with active participation by President George H.W. Bush during the so-called Earth Summit in Rio de Janeiro. The resulting treaty was ratified by the U.S. Senate that October and was signed into law one day later by President Bush. Regrettably, climate change is now a partisan political issue.

The Economy and the Environment

RESPONDING TO PRESIDENT OBAMA'S State of the Union message this past January, Representative Michele Bachmann, speaking on behalf of Tea Party supporters, argued that "the president could stop the EPA [Environmental Protection Agency] from imposing a job-destroying cap-and-trade" market to deal with climate change; she was referring to the proposed system of tradable permits, originally embraced by Republicans, as a way to reduce greenhouse-gas emissions (which would most likely require legislation, not mere regulatory action). She went on to suggest "that the president could agree on an energy policy that increases American energy production and reduces our dependence on foreign oil."

Given that current oil prices threaten the recovery of the economy, this last point merits serious consideration. Why not take it on and address it with an integrated response? A thoughtful approach to reducing our dependence on imported oil could alleviate, at least to some extent, the threat of disruptive climate change. Properly implemented, it could also provide a stimulus for the millions of new jobs needed to get us out of our present economic malaise (an ancillary objective of the original Waxman-Markey bill).

Imports currently account for approximately 60 percent of U.S. oil consumption: we bought 4.2 billion (42-gallon) barrels of crude oil and petroleum products in 2009. At the recent $100 a

CRAIG HARTLEY/BLOOMBERG VIA GETTY IMAGES

barrel, this implies an annual expenditure of $420 billion. To put this in context, the *total* U.S. trade deficit amounted to $498 billion in 2010. Oil prices hit a peak of $147 a barrel as recently as July 2008. Few would argue that prices could not return to this or to even loftier levels in the future: the price of oil is dictated by international events largely beyond our control. Think what would happen if the current instability in the Middle East were to extend to Saudi Arabia. And we are not the only party in the market for oil. China's dependence on foreign oil is rising rapidly: with its economy booming, China has moved from self-sufficiency in 1995 to importing more than half of its petroleum and equivalents in 2009, as consumption nearly tripled during that period. Given this increasing demand, even higher prices are very likely.

The Shortcomings of Ethanol and Energy Taxes

Approximately 70 percent of oil consumed in the United States is used to power transportation. George W. Bush's administration set a goal of having up to 7.5 billion gallons of so-called renewable fuel deployed as an additive to gasoline by 2012. We have comfortably surpassed this objective already: more than 10 billion gallons of corn-based ethanol were blended with gasoline in 2010.

But we accomplished this milestone at significant cost. Refiners blending ethanol with gasoline benefit from a subsidy of 45 cents a gallon. Nearly 40 percent of the U.S. corn crop is now used to produce ethanol—with limited benefit in terms of reducing either oil consumption or greenhouse-gas emissions, but with significant impacts on the price of corn as a food (see "The Ethanol Illusion," November-December 2006, page 33). We live in an interconnected world and there are persuasive arguments that the emphasis on growing corn as a feedstock for ethanol has at least contributed to the recent rise in global food prices. Why not abolish the corn-ethanol subsidy? This would not directly affect farmers, because the subsidy is paid to those who blend the ethanol with gasoline. That would save taxpayers nearly $5 billion a year—and would have a minimal, or even positive, effect on the price of gasoline.

If we are to seriously reduce our dependence on imports, we need to cut back significantly on consumption of oil to fuel our cars, trucks, and buses. Oil-industry veteran T. Boone Pickens has proposed that we use compressed natural gas (CNG) as a substitute for oil-based fuels for large trucks and buses. And indeed, the United States has abundant sources of natural gas that can be extracted profitably with current technology from shale—enough perhaps to accommodate anticipated demand for a century or more—assuming that we can address the related environmental challenges, specifically the recent suggestion that production of gas from shale is associated with a sig-

Electricity from towering turbines: wind-energy farm in Ethridge, Montana

ANDREW HARRER/BLOOMBERG VIA GETTY IMAGES

nificant release to the atmosphere of methane, a greenhouse gas that is even more consequential than carbon dioxide.

But proposed legislation to implement the plan would require a subsidy in excess of $500 billion to convert eight million trucks and buses to CNG—not to mention the infrastructure required to service these vehicles (think of CNG service stations deployed along all major highways). CNG could conceivably play an important role on a local level, for city buses and taxis that could have convenient access to a limited number of central fueling stations. As proposed, though, the Pickens proposal is too expensive, and would tend to lock us into a pattern of continuing unsustainable emission of greenhouse gases from the transportation sector.

Alternatively, we could reinforce market pressure to change fossil-fuel consumption. *New York Times* columnist Thomas Friedman has suggested that $4-a-gallon gasoline represents "a red line where people really start to change their behavior." He proposed that "the smart thing for us to do right now is to impose a $1-a-gallon gasoline tax, to be phased in at five cents a month beginning in 2012, with all of the money going to pay down the deficit." I agree that gas prices are too low—the equivalent prices in some European countries are now close to $10 per gallon—and in the best of all worlds his proposal makes eminent sense. Politically, though, it would appear to be dead on arrival. The predictable response was that such a tax would hurt the economy and that the cost would fall inequitably on those least equipped to deal with it. As for a tax only on imported oil, at current prices, a levy of $20 per barrel would raise more than $80 billion annually for the Treasury and could accomplish much the same objective as Friedman's tax on gasoline—but it may not be permissible under world trade regulations not to mention the fact that Canada, our largest supplier, might be expected to register a strong protest.

The Case for Electrification

Can we come up with a better idea? In the long run, I believe we need a more efficient, lower-cost, more sustainable energy alternative to oil to reduce our dependence on expensive imports—one that would at the same time accommodate our essential requirements for an energy source for transportation. The internal combustion engine is intrinsically inefficient. Less than a quarter of the energy consumed is used to drive the vehicle: the balance is rejected as waste heat. A better option would be to use electricity to drive our cars and light trucks. In this case, more than 90 percent of the energy would be deployed usefully. What this means is that we could provide the driving potential of a gallon of gasoline by substituting as few as 8 kilowatt hours (kWh) of electricity. Given the current national average retail price of electricity of about 10 cents per kWh, the implication is that we could drive the equivalent of a gallon's worth of gasoline for as little as 80 cents.

We would not need a technological revolution to convert the

THE BEST OPTION WOULD BE TO DRIVE OUR CARS AND LIGHT TRUCKS USING ELECTRICITY FROM A RENEWABLE RESOURCE SUCH AS WIND OR SOLAR POWER. UNDER FAVORABLE CIRCUMSTANCES, WIND IS ALREADY COST-COMPETITIVE WITH COAL.

bulk of our personal driving to electrically assisted propulsion. The Chevy Volt, for example, is capable of driving all-electrically for approximately 40 miles using power drawn from a conventional electric socket. If you wish to drive farther, the car switches to burning gasoline to generate the necessary electricity on board the vehicle. The U.S. average car or light truck is driven approximately 12,000 miles per year—about 33 miles per day. The conclusion: if your personal transportation needs were supplied by the Chevy Volt, the bulk of your driving could be fueled by cheap grid-supplied electricity. And the Volt is but one possibility for the electrically powered cars of the future. We may anticipate not only plug-in competitors but also pure electric vehicles as advances in battery technology allow for the extension of driving range for the latter.

Approximately 40 percent of electricity in the United States is produced using coal, with natural gas (23 percent), nuclear fission (20 percent) and hydropower (7 percent) accounting for most of the balance, and a small though rapidly growing contribution from wind. Driving your car using electricity generated from coal could reduce demand for imported oil, but would represent a step backward in terms of reducing emissions of greenhouse gases (coal accounts for 40 percent of U.S. emissions of the most important greenhouse gas, carbon dioxide, or CO_2). Using electricity generated by burning natural gas would make a modest contribution to the greenhouse-gas problem, while power generated using either nuclear or hydropower would of course be largely free of carbon emissions.

By far the best option would be to drive our cars and light trucks using electricity generated from a renewable resource such as wind or solar power. Wind accounted for 40 percent of all new electricity-generating capacity installed in the United States in 2009 (admittedly, a year when not much new capacity from other sources was added). Bloomberg News reports that even in the absence of subsidies, wind is already cost-competitive with coal as a source of new electricity (6.8 cents per kWh for the former as compared to 6.7 cents per kWh for the latter) under favorable circumstances (see "Saving Money, Oil, and the Climate," March-April 2008, page 30).

Our country has abundant sources of wind, sufficient to supply our entire demand for energy for the foreseeable future. But there are two problems. First, the supply from wind is intrinsically variable: U.S. demand for electricity generally peaks during the day and in summer; supplies from wind are typically greatest at night and in winter. Second, the cheapest sources of wind are located in the middle of the country, far removed from the highest demand centers on the coasts.

There are solutions to both challenges. We could construct a network of high-voltage direct-current supply lines capable of efficiently connecting regions of high demand with regions of high potential supply—a twenty-first-century distribution network extending from coast to coast and from border to border. This would require, of course, a significant investment of capital, perhaps as much as a trillion dollars. To put this number in context: the U.S. gross domestic product (GDP) in 2010 amounted to $14.5 trillion; national retail sales of electricity totaled $270 billion; and of course our current bill for oil imports has been running at the rate of $400 billion. An investment in an updated transmission system could pay for itself with a modest surcharge on electricity delivered to the high-demand regions without imposing a significant burden on consumers in those regions (they might even save money in the aggregate). Customers in the high-demand regions already pay a significant premium for electricity relative to the 6.8 cents per kWh currently estimated to produce power from wind in the most favorable regions. Right-of-way for the proposed distribution system potentially could be allocated along the existing interstate highway and rail systems. Think of the jobs that could be created with such an initiative, not to mention the benefits that would accrue to landowners providing siting facilities for the proposed new wind farms.

Wholesale electricity prices vary significantly over the course of a day and over the course of a year, responding in real time to variations in demand. The efficiency of the electrical system could be markedly improved if the proposed fleet of electrically enabled cars could be charged at times when demand was otherwise low. Better still, a two-way connection between utilities and customers could allow cars to be *charged* when excess electricity was available, and to serve as a power *source* when electricity was otherwise in short supply. The batteries of the cars could provide a valuable means for storage of electricity. Utilities would be better able in this case to balance supply and demand, reducing the challenge of integrating a variable source of power such as wind or solar into the national distribution system, and minimizing the need to maintain expensive back-up facilities that are deployed only infrequently to meet temporary increases in demand.

The federal government has responded in the past to the need for investment in the infrastructure required to improve the nation's security and to promote economic growth. Abraham Lincoln was responsible for the extension of the railroad system that opened up the West. The Eisenhower administration built the interstate highway system. The Department of Defense sponsored the research that led to the World Wide Web and the global positioning system. Each of these path-breaking initiatives was undertaken by a Republican administration. Now, with thoughtful public investment in our infrastructure, capitalizing on our significant national resources of renewable low-carbon energy, we can enhance our national security and reduce our adverse balance of trade, improve the quality of our environment, minimize the risks of future adverse climate change, and enhance conditions for renewed growth of our private-sector economy.

Michael B. McElroy is Butler professor of environmental studies. His book Energy: Perspectives, Problems, and Prospects *(Oxford) appeared last year; a Chinese-language version has been published recently in China.*

FORUM

COLLEGES in CRISIS

Disruptive change comes to American higher education

by CLAYTON M. CHRISTENSEN *and* MICHAEL B. HORN

America's colleges and universities, for years the envy of the world and still a comfort to citizens concerned with the performance of the country's public elementary and secondary schools, are beginning to lose their relative luster. Surveys of the American public and of more than 1,000 college and university presidents, conducted this past spring by the Pew Research Center in association with the *Chronicle of Higher Education,* revealed significant concerns not only about the costs of such education, but also about its direction and goals.

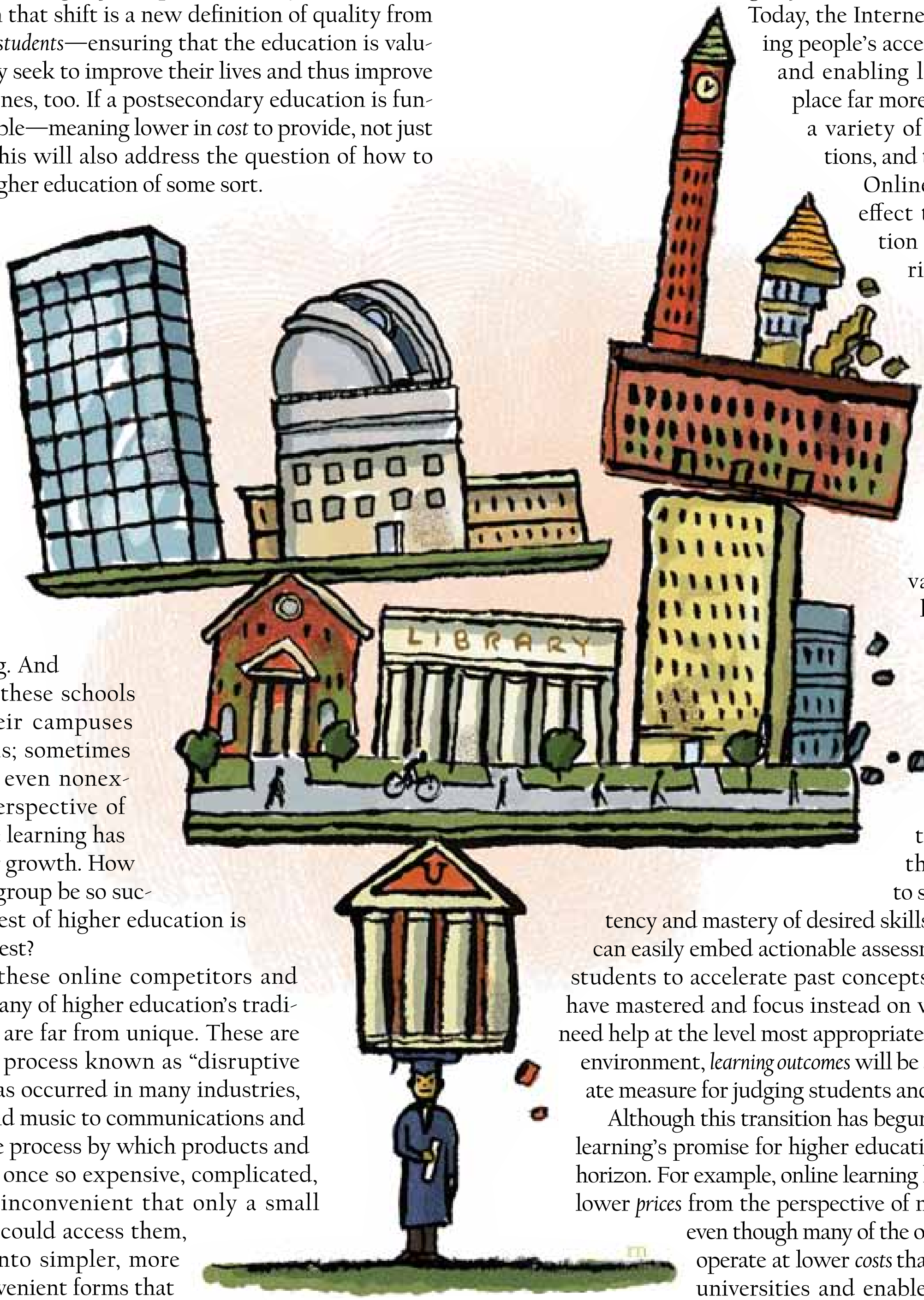
Despite a long track record of serving increasing numbers of students during the past half-century, graduation rates have stagnated. A higher proportion of America's 55- to 64-year-old citizens hold postsecondary degrees than in any other country—39 percent—but America ranks only tenth in the same category for its citizens aged 25 to 34 (at 40 percent). And *none* of America's higher-education institutions have *ever* served a large percentage of its citizens—many from low-income, African-American, and Hispanic families.

Indeed, the quality of America's colleges and universities has been judged historically not by the numbers of people the institutions have been able to educate well, regardless of background, but by their own *selectivity*, as seen in the quality and preparedness of the students they have admitted. Those institutions that educated the smartest students, as measured by standardized tests, also moved up in the arms race for money, graduate students, and significant research projects, which in turn fueled their prestige still further, as faculty members at such schools are rewarded for the quality of research, not for their teaching.

More fundamentally, the business model that has characterized American higher education is at—or even past—its breaking point. Many institutions are increasingly beset by financial difficulties, and the meltdown since 2008 is but a shadow of what is to come. Undergraduate tuition has risen dramatically: at a 6.3 percent annual clip for nearly the last three decades—even faster than the much-decried 4.9 percent annual cost increases plaguing the healthcare industry. The full increase in the price of higher education has actually been hidden from many students and families over the years because gifts from alumni, earnings from private university endowments, subsidies from state tax revenues for public universities, and federal subsidies for students have been used to mitigate some costs. But universities are exhausting these mechanisms.

Endowments that took decades to build were devastated in 2008. During the past 15 years, state-supported schools have been shifting the burden of tuition to students and their families, who were initially shielded from the consequences because, as noted, aid had increased so rapidly that the net price to students fell, on average. But those offsetting government dollars have not kept up of late. State universities, feeling the budget crunch, have resorted to all sorts of devices to try to stay afloat—including cutting back the number of students they enroll at the very time the country needs more of its population educated. Severe government budget crises have only exacerbated the trend of shifting the costs of higher education to students and their families, a shift that is likely to become far more intense in the future because of the enormous obligations that federal, state, and local governments face in funding the pension and healthcare costs of their current and retired employees—as well as aging baby boomers. Indeed, for several years now, state spending has not kept up on a per student basis, and this past year, for the first time, state spending on higher education decreased absolutely. News from Arizona, California, and Texas portends even bigger cuts going forward.

In the aggregate, this multipronged crisis calls for the United States to rethink how it views its institutions of higher education. Since World War II, the country's dominant higher education policies have focused almost exclusively on expanding *access*: enabling more students to afford higher education, regardless of its total cost. Today, changing circumstances mandate that we shift that focus to making a *quality* postsecondary education *affordable*. Inherent in that shift is a new definition of quality from the perspective of *students*—ensuring that the education is valuable to them as they seek to improve their lives and thus improve the country's fortunes, too. If a postsecondary education is fundamentally affordable—meaning lower in *cost* to provide, not just the *price* to pay—this will also address the question of how to extend access to higher education of some sort.



A Thriving, Disruptive Innovation

JUST at the moment when these challenges to established higher education have arisen and compounded, another group of universities has arisen whose financial health is strong and enrollments have been booming. And yet the brands of these schools are weak and their campuses far from glamorous; sometimes the campuses are even nonexistent from the perspective of students, as online learning has largely driven their growth. How could this upstart group be so successful when the rest of higher education is treading water at best?

The success of these online competitors and the crisis among many of higher education's traditional institutions are far from unique. These are familiar steps in a process known as "disruptive innovation" that has occurred in many industries, from accounting and music to communications and computers. It is the process by which products and services that were once so expensive, complicated, inaccessible, and inconvenient that only a small fraction of people could access them, are transformed into simpler, more accessible and convenient forms that are also, ultimately, lower in cost. We are seeing it happen more rapidly than one could have imagined in higher education, as online learning has exploded: roughly 10 percent of students took at least one online course in 2003, 25 percent in 2008, and nearly 30 percent in the fall of 2009.

What is exciting about this emerging reinvention it that it has significant potential to help address the challenges facing American higher education by creating an opportunity to rethink its value proposition—its cost and quality.

When America's traditional universities arose, knowledge was scarce, which meant that research and teaching had to be coupled tightly. That is no longer the case. Today, the Internet is democratizing people's access to knowledge and enabling learning to take place far more conveniently in a variety of contexts, locations, and times.

Online education can effect the transformation not only of curriculum but also of learning itself. Judging it by the metrics used to govern the old system is both inappropriate and limiting (as is true of all disruptive innovations). Online learning allows education to escape from the focus on credit hours logged and "seat time" in classrooms to new standards that tie progress to students' competency and mastery of desired skills. Online courses can easily embed actionable assessments that allow students to accelerate past concepts and skills they have mastered and focus instead on where they most need help at the level most appropriate for them. In this environment, *learning outcomes* will be a more appropriate measure for judging students and institutions.

Although this transition has begun, much of online learning's promise for higher education is still on the horizon. For example, online learning has not yet led to lower *prices* from the perspective of many students—even though many of the online universities operate at lower *costs* than the traditional universities and enable students to fit

Illustrations by Robert Neubecker

But cost increases and an increasingly broken business model—reliance on ever-rising tuition, endowment income, and research funding, on expensive campuses with large support staffs—plague much of higher education.

coursework around existing jobs or other responsibilities. To date, moreover, significant portions of online learning have not taken advantage of this new medium to personalize instruction and create new, dynamic and individualized learning pathways within a course for students.

This is not static, however. Disruptive innovations typically begin simply, as they aim to capture markets by offering people whose alternative is literally nothing at all (that is, current nonconsumers) a stripped-down product or service that may well appear primitive as judged by the old performance metrics. But disruptive innovations predictably improve year by year and ultimately transform the world as people in the mainstream migrate to the new products or services because they are delighted with a solution that they find simpler, more accessible and convenient, and lower in cost. Over time, continuing waves of disruption progressively reinvent the market.

The emerging online universities fit the pattern of a disruptive innovation for higher education. Not only did they get their start as simple products and services, they started by serving those who were overlooked by or could not access the typical colleges and universities—by making education far more convenient. Now online learning is beginning to improve and serve more demanding customers. But this transition is still early, and the country's higher-education policies have incentivized little of this transformational behavior: government policies have continued to emphasize access to a higher education regardless of quality and true cost, which has held back the evolution.

This suggests a clear path forward for policymakers and stakeholders looking to reinvent American higher education—to realize real gains in cost and in student learning of essential skills. Their goals should be to embrace the disruptive innovation, to focus on new measures to judge its quality, and to encourage innovation driven by improving student outcomes and lowering overall costs. Over time, such policies will advance the rate at which the new education technology and business paradigm can better serve American citizens and the economy as a whole.

A Threatened Sector

But what then of the existing institutions of higher education that have served America for so long? Typically, the existing and established players in a sector do not survive battles of disruptive innovation; upstart companies utilizing the disruption upend them. Rather than recognize these disruptive innovations as exciting new opportunities, the established players characteristically regard them as mere sideshows to their core operations. Predictably, the majority of universities have taken this same defensive stance and so have done little to adopt this disruptive innovation and to reinvent themselves.

This stance exposes an even more significant problem that is forcing many American universities outside the top institutions to the brink of collapse. Although some traditional universities have used online learning as a sustaining innovation—in effect disrupting their individual classes—almost none have used it to change their business model in any significant way. Whenever we have seen a disruptive innovation reinvent a sector, change has resulted from the *joint* action of a new technology and an accompanying new business model. But cost increases and an increasingly broken business model—reliance on ever-rising tuition, more endowment income or government support, and research funding, all wrapped up in expensive physical campuses with large support staffs—continue to plague much of higher education.

Examining the traditional universities through the lens of innovation, we see that a muddled business model is causing the industry's ruinous cost increases. For decades now, these institutions have offered multiple, concurrent value propositions: knowledge creation (research), knowledge proliferation and learning (teaching), and preparation for life and ca-

DISRUPTING HARVARD?

Could the new learning technologies, combined with new higher education models, disrupt the most selective, elite institutions—like Harvard?

Institutions that derive their value from being selective, rather than from serving people in volume, tend to be more immune from disruption. For example, when previously great companies such as Digital Equipment Corporation and RCA's consumer electronics powered by vacuum tubes (television sets, for instance) were displaced, they proved vulnerable because their customers fled en masse to disruptive innovations: the personal computer and Sony's consumer electronics powered by the transistor. Harvard College, on the other hand, fits squarely into a description of a luxury service whose value is derived from the fact that it only serves a limited few.

But the process of disruptive innovation has spelled the decline of many dominant and successful organizations. Harvard might not be different—or not so different that it can readily escape a serious decline. It suffers from many of the same challenges plaguing many nonselective institutions of higher education: conflated business models that have led to continually rising costs and tuition increases over the years, and improvements dependent on continuing alumni gifts and endowment performance that have allowed the College to remain affordable through such mechanisms as financial aid.

Institutions like Harvard Business School might be particularly vulnerable. Consider the different reasons or jobs for which people might "hire" business education. Some need help with a relatively specific business problem or question; others want to learn how to be a great general manager; many need a credential to obtain their next promotion; still others want help switching careers. And still more people "hire" business education for the brand and connections of a prestigious alumni network.

The fundamental shift in the business education market began with the solving of that first job—helping employees with a relatively specific business problem or question—through the advent of in-house corporate universities. And, as disruptors do, corporate universities are both improving and expanding to serve people outside of their companies in some cases. Business schools may not feel it yet, but the corporate university is beginning to take on the second and third jobs we listed for which people hire business education—learning to be great general managers and attaining the credentials necessary for a promotion.

The corporations that created these universities have historically been the source for the majority of clients enrolled in traditional executive-education programs at business schools, often the cash cows of such institutions. With an education option now readily available at the corporate universities, however, employers are less and less eager to send potential executive-education students to a traditional business school program. Already many business schools are seeing declining executive-education enrollments.

The spillover effect could be devastating to faculty research and the M.B.A. program itself. For example, as the executive-education funds that subsidize the M.B.A. program dry up, the cost of the traditional business degree would have to increase even faster than it does today. Even more students might then have to find their business educations through other means, such as part-time M.B.A. programs and, increasingly, online programs that have far lower opportunity costs (students can enroll while continuing their jobs) and tuition prices students can justify given the salaries they will likely make. In this context, an M.B.A. from Harvard just might not have the same return on investment—or elite cachet.

reers. They have as a result become extraordinarily complex—some might say confused—institutions where significant overhead costs take resources away from research and teaching. A typical state university today, for example, is the equivalent of a three-way merger of the consulting firm McKinsey—focused on diagnosing and solving unstructured problems; the manufacturing operations of Whirlpool—which uses established processes to add value to things that are incomplete or broken; and Northwestern Mutual Life Insurance Company—in which participants exchange things to derive value: fundamentally different and incompatible business models all housed within the same organization. Meanwhile, rival organizations using online learning in a new business model focused exclusively on teaching and learning, not research—and focused on highly structured programs targeted at preparation for careers—have benefited from a significant cost advantage and have been able to grow rapidly.

This is a hopeful story for America, and there is even a potential silver lining for many of the existing institutions of higher education, too. Our studies reveal that incumbents sometimes survive and thrive amid disruption—in every case, because they are able to create independent divisions, unfettered by their existing operations, which can use the disruption inside a new business model that reinvents what they do.

It is not easy to effect such internal change, but creating the space and autonomy for these new models to thrive and grow outside the interests of the traditional groups is the ultimate test of and key challenge for leaders in all sectors. It is the test that now confronts the leaders of many of the existing institutions of higher education that seek to train the future leaders of America.

Clayton M. Christensen, M.B.A. '79, D.B.A. '92, is Cizik professor of business administration at Harvard Business School. Michael B. Horn, M.B.A. '06, is the co-founder and executive director for education of Innosight Institute, a nonprofit think tank devoted to applying the theories of disruptive innovation to problems in the social sector. Christensen and Horn are the coauthors, with Curtis W. Johnson, of Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns.

JOHN HARVARD'S

JOURNAL

COMMENCEMENT 2011

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STU ROSNER

JIM HARRISON

Commencement Witchcraft

How does the modern, rational research university assure clement conditions for graduation? Witchcraft.

Harvard's Commencement planners kept an increasingly wary eye on the forecasts during a 10-day mid-May siege of fog, rain, and drizzle. The gloom began to lift on Tuesday afternoon, around the time of the Baccalaureate exercises in Memorial Church; and

BROOKS CANADAY/HARVARD NEWS OFFICE


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Clockwise from far left: Graduate School of Arts and Sciences marshal Knatokie Marie Ford celebrates her Ph.D. in biological and biomedical sciences; "angels" Charles Jacob Buehler, M.T.S. (left), and John Hudspeth Davidson, M.Div., helped lead the Divinity School contingent; Presidents Ellen Johnson Sirleaf and Drew Faust with a gift from Liberia (see below); Sebastian Burduja, M.B.A. - M.P.P. , wears the flag of his native Romania; Harvard Philippine Forum dancers (left to right) Will Simbol, Ed.M., new A.B.s Elizabeth (Lisa) Miranda, Edmund Soriano, and Brittney R. Lind, and Vincent Cheng, A.L.M.; new second lieutenant Christopher Higgins '11 has his bars pinned on by his mother and sister.

Wednesday, with class days all over campus, was a stunner, made all the more appealing by the persistence of lilacs, dogwoods, and azaleas—a bonus of the cool, late spring—and the arrival of their usual successors (rhododendrons, irises). A good omen.

But the deal remained unsealed until Wednesday night. Then, in the toast offered on behalf of her fellow honorands at the annual celebratory dinner in Annenberg Hall, Liberian president Ellen Johnson Sirleaf told the guests that when she spoke at the Harvard Kennedy School (her alma mater) at its 2008 graduation, "It rained. It *really* rained." And so, before setting out for Harvard to be the principal Commencement speaker, "I consulted our witch doctors and told them to be sure to send the African sun behind me." "If it rains," she said, "I'll just have to dispense with the witch doctor society." Their status is secure: May 26 was all of high spring packed into one cloudless day.

Sirleaf brought more tangible magic, too. At the end of her toast, forging a bond "from one woman president to another woman president," she presented Drew Faust with a hand-sewn quilt from the rural Liberian community of Arthington, complete with the VERITAS shield. An obviously delighted Faust had it hung directly behind her chair on the blue backdrop of the Memorial Church dais, for all to see, on Commencement day.

Commencement, one is annually reminded, is about beginnings. Timothy J. Lambert '11, as one of two Harvard Orators on senior class day, did the honors this year: "The word means *beginning*." But as undergraduates above all know, it also means the sad *end* of four distinctive years.

Endings were pervasive and poignant during Harvard's 360th Commencement. Speaking in Memorial Church, where the Reverend Peter J. Gomes long delivered spellbinding sermons, President Faust meditated on the meaning of his life in her first Baccalaureate service since his death on February 28 (see page 48). At the opening of the Thursday morning exercises, the chaplain of the day, Bernard Steinberg of Hillel, prefaced his prayer by saying, "In memoriam: James DiPaola and Peter J. Gomes." The former, the late sheriff of Middlesex County, who had ridden a horse through Harvard Yard and, "combining dignity and irony," had opened and closed the morning exercises for a decade, committed suicide last November. "[M]y friend Peter," who had read the Commencement benediction from his cap for four decades, was gone as well. Offering the benediction this year in Gomes's place, his interim successor as acting Pusey minister, Wendel W. Meyer, echoed the remembrance, beginning simply, "Life is short...."

Leave-takings by the living were noted as well—people who had acted on the University's behalf: former Senior Fellow James R. Houghton (see page 46); Steven E. Hyman, the departing provost (see pages 51 and 53); and Barbara Grosz, who is stepping down as Radcliffe Institute dean (see page 61).

It was a mostly serious week—perhaps in part because with a head of state (Sirleaf) and a Supreme Court justice (Ruth Bader Ginsburg) as official guests, and an impromptu appearance by Vice President Joe Biden and others (see page 50), there were plenty of security officers on hand. Even actor Alec Baldwin, who might have riffed on the comic *30 Rock*, told the Law School's class day crowd, "From the bottom of my heart, I envy you." Revealing a lifelong interest in the law, he said, "I believe that I would trade what I have for what you'll have tomorrow afternoon."

But there were leavening moments of humor, too. During the morning exercises, conducted with running-the-trains-on-time efficiency, Harvard Divinity School dean William A. Graham introduced his candidates for degrees with a knowing ad lib: "I have the honor to present to you these women and men, each of whom has devoted two, three, or more—sometimes *many* more—years to theological and religious studies…." The provost, limning the honorands' distinctions, identified a two-fer: *both* Dudley R. Herschbach and Plácido Domingo have played themselves on episodes of *The Simpsons*. And at his luncheon spread, U.S. Secretary of Education Arne Duncan '86, elected chief marshal by his twenty-fifth reunion class, described his reaction to working with the "Happy Committee," the alumni body that oversees Commencement. In Washington, Duncan noted, he worked on lots of committees—*none* of them happy.

JIM HARRISON

Still bullish on books: School of Education graduates celebrate.

Faust spoke most emotionally in her Baccalaureate address and in her brief remarks at the ROTC commissioning ceremony. There, invoking the 150th anniversary of the beginning of the Civil War (her scholarly field as historian), she summoned the memory of Charles Russell Lowell, valedictorian of the class of 1854, and Robert Gould Shaw, class of 1860, both of whom died in the war, and Oliver Wendell Holmes Jr., class of 1861, thrice wounded, and observed, "We are not the first to live in an era of peril and crisis. With our country involved in conflicts at three sites around the globe, you as military officers have chosen to face very difficult challenges and to assume grave responsibilities….I hope that your place in a long and newly invigorated Harvard tradition of military service and sacrifice supports and inspires you in the months and years to come." Her afternoon-exercises remarks, the next day, focused on the role of and challenges to higher education.

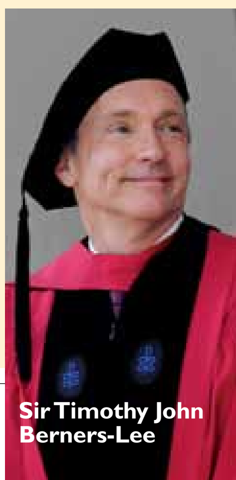
Sirleaf spoke about hopeful signs that democracy was taking root in Africa, and that her war-ravaged country was progressing toward reconciliation and a climb from poverty, and drew upon her harrowing life experiences to share wisdom with the graduates (see page 52).

Some of the most

Honoris Causa

Six men and three women received honorary degrees at Commencement. Provost Steven E. Hyman introduced the honorands, and President Drew Faust read the citations, concluding with the recipient's name and degree—except in the case of Ruth Bader Ginsburg, for whom the previous honorand rose to sing a special tribute (view the video at **harvardmag.com/placido-domingo**). *For fuller background on each, see* **harvardmag.com/2011-honorands**.

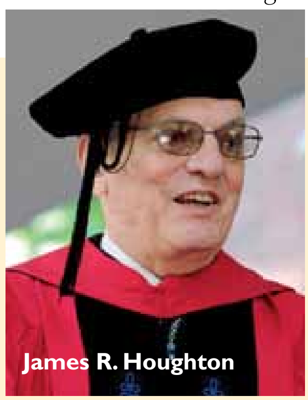
Sir Timothy John Berners-Lee. The inventor of the World Wide Web, now 3Com Founders Professor at MIT. Doctor of Science: *Ingenious guru of a global village, to whom the W owes its ubiquity, he has woven from strands of complex code a web that encircles and enlivens our world.*



STU ROSNER

Sir Timothy John Berners-Lee

James R. Houghton '58, M.B.A. '62. Fellow of the Harvard Corporation from 1995, and Senior Fellow from 2002 until his retirement in 2010; former chairman and chief executive officer of Corning Incorporated. Doctor of Laws: *A fine fellow fiercely committed to his university's care, he has helped guide its passage through change and through storm, with deep devotion to possibilities made real and with Harvard's agenda ever his own.*



STU ROSNER

James R. Houghton

Rosalind E. Krauss, Ph.D. '69. University Professor at Columbia, a pioneering historian, critic, and theorist of twentieth-century painting, sculpture, and photography. Doctor of Arts: *Deflating dogma with keen perspicacity, wrestling new mediums to the mat of specificity, a trenchant theorist of the modern and postmodern who has recast the lens through which we see art.*

David Satcher. Former director of the Centers for Disease Control and Prevention, Surgeon General of the United States, and assistant secretary of health, known for addressing head-on issues such as smoking, sexual behavior, AIDS, youth violence, and racial disparities in healthcare. Doctor of Science: *To make the greatest difference for those with greatest need, he confronts controversial health concerns with candor and compassion, the public good his primary care.*

STU ROSNER

Rosalind E. Krauss

morally forceful rhetoric came from others who, like Sirleaf, live or work in the developing world. Partners In Health cofounder Paul Farmer, named Kolokotrones University Professor during the year, said in his Kennedy School graduation speech that earthquake-ravaged Haiti, where he has labored for decades to deliver healthcare to the rural poor, had taught him to "beware the iron cage of rationality." He confessed, "We all wanted to be saved by expertise, but we never were." Instead, he said, making headway requires that we learn to "accompany someone"—"to go somewhere with him or her, to break bread together, to be present on a journey with a beginning and an end….Accompaniment is much more often about sticking with a task until it's deemed completed by the person or person being accompanied, rather than by the *accompagnateur*." Radcliffe Medalist Ela Bhatt, founder of the Self Employed Women's Association, in India, said of some of the world's most marginalized people, "It is the margins that define the center."

STU ROSNER

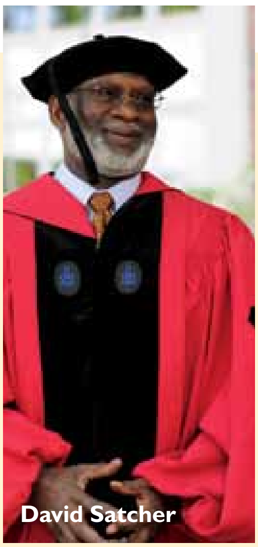
Supreme singer: Tenor Plácido Domingo serenades fellow honorand Ruth Bader Ginsburg, an opera fan, to conclude the conferral of her degree.

Rhetoric aside, the graduates could learn much from the behavior modeled around them. In "What Really Matters," a column in the Commencement issue of the *Crimson*, Rabb professor of anthropology and professor of psychiatry Arthur R. Kleinman (see page 63), wrote that education is for self-cultivation but "ultimately also for our responsibilities for those we love, for those we teach, and for those we live amongst."

To an unusual degree, the 2011 Commencement seemed to display families who have been blessed with long relationships, among themselves and with Harvard—from leading University figures such as honorand Dudley R. Herschbach (see page 51) to newly named Fellow of the Corporation Joseph J. O'Donnell (see page 49). At the Graduate School of Arts and Sciences diploma ceremony, newly minted A.M.s, S.M.s, and Ph.D.s were accompanied by spouses and children (see page 50). And the reunion parade, as always, was a multigenerational event, with the young, where needed, helping the old (see page 69). All present, participants and guests, were enjoying those relationships on a gift of a day.

Thank you, witch doctors. Please mark May 24, 2012, on your calendars.

Dudley R. Herschbach, Ph.D. '58, JF '59. Co-winner of the 1986 Nobel Prize in chemistry, former master of Currier House, and a teacher who combined the sciences with the humanities—making him, in the provost's phrase, "Harvard's own literate laureate." Doctor of Science: *Imaginative master of molecular dynamics, whose zeal for discovery feeds his zest for teaching; a scientist and humanist straddling two cultures, he animates the interplay of abacus and rose.*

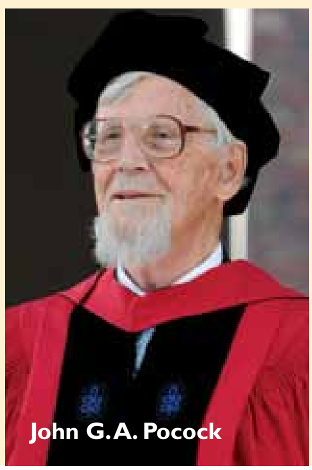


STU ROSNER

John G.A. Pocock. A leading historian of political theory and discourse, known especially for explicating the emergence of the idea of republicanism and for analyzing the work of Edward Gibbon and his contemporaries. Doctor of Laws: *Sagely expounding civic humanism, subtly unfolding history's history, an erudite scholar of political discourse expertly illumining how context colors text.*

Plácido Domingo. The internationally acclaimed singer and conductor, general director of the Los Angeles and Washington National opera companies. Doctor of Music: *Incandescent presence on stages worldwide, opening hearts to opera's grandeur; a tenor for the ages, whose magnificent mellifluence tingles the spine and stirs the soul.*

The Honorable Ruth Bader Ginsburg, L '59. The fundamental figure in advancing gender equity in American constitutional law and, since 1993, an associate justice of the U.S. Supreme Court. Doctor of Laws: *An advocate extraordinaire who propelled the quest for equal justice under law; a judge supreme who lifts the bench with devotion to the dignity of each individual.* As Faust concluded this citation, Domingo rose to serenade Ginsburg (a devotee of the art form): "Ruth Bader Ginsburg, Doctor of Laws, come to hear us at the opera, direct from the Supreme Court," to the opening bars of Verdi's "Celeste Aida."



STU ROSNER

Her Excellency Ellen Johnson Sirleaf, M.P.A. '71. President of Liberia, and Africa's first female elected head of state. Doctor of Laws: *Her spirit indomitable, her story inspirational, she strives to heal the wounds of war; for a nation long beleaguered, an unblinking beacon of hope.*

Words to Live By

The graduates heard in multiple ways how they might lead their lives. Herewith, four samples. Full texts and audio and video recordings of these and other Commencement week speeches are available at **harvardmag.com/commencement-2011**.

"Finish Your Own Sentences"

In her Baccalaureate remarks to the graduating seniors on Tuesday afternoon in Memorial Church, where the late Peter J. Gomes had long held sway, President Drew Faust, who took office in 2007, reflected on the past four years, as "you and I began our journeys at Harvard together." She drew on Gomes himself to fashion her talk.

These past four years…[y]ou discovered passions you could not have imagined. You realized in this diverse and distinctive class just how difficult it is to "peg" anyone, especially yourself.

You are what Reverend Peter Gomes might have called, and I quote him, "an illustration in search of a sermon." As I thought about what I might say to you today, it occurred to me that this was an apt, and meaningful, description of Peter Gomes himself.… [H]e remains at the center of what it means to be a part of Harvard, a moral tradition and force in the legacy of "veritas" that is not just a succession of truths, but a compass.… In fact, universities once assumed that goodness and the search for truth were indivisible, and this assumption animated everything Peter Gomes did. Remain mindful of others, but decide for yourself. Be who you are, or at least be discovering who you are, and not what others think you should be.…

As a man of multiple labels, Peter Gomes was ahead of his time. A Republican professor at Harvard, a gay Baptist preacher, a black Pilgrim Society president from Plymouth. He often described himself as "Afro-Saxon."… [Y]ou could feel across campus the ripple of his singularity.

After coming out publicly, in 1992, he gave a commencement speech to an anxious audience at Princeton Theological Seminary, and, as a man of words, he let no one finish his sentences for him. He said, "I know that my being here today is the cause of no small consternation for some of you. After all, I am…black…and I am…Baptist…and I am…from Harvard!" Playful. Unapologetic. Unbounded by others' expectations.…

And so, on Thursday, as you pass through the gates into the ancient company of educated men and women, you face an important question. Not, Will I get a job? Will I succeed? Will I satisfy everyone else's expectations?—though these worries are real. But the real question is: How, within the possible narratives, can I most be myself? How will I finish my own sentence, when I say "I went to Harvard, and then I…"


JIM HARRISON

President Drew Faust

…The world you face is daunting, and it is uncertain. Charting a course is hard. But you are well prepared—with the analytic spirit, the capacity for questioning and for judgment, and the habits of mind your education has given you these past four years.

Philosopher William James drew an important distinction at a Harvard Commencement dinner a century ago. He said there is an "outer Harvard," a "more educated cleverness in the service of popular idols." But, he continued to say, there is also an "inner spiritual Harvard," carried by those who come not because the University is a club, but, as he put it, "because they have heard of her persistently atomistic constitution, of her tolerance of exceptionality and eccentricity, of her devotion to the principles of individual vocation and choice.…You cannot," he said, "make single, one-idea-ed regiments of her classes.…" This is just as meaningful in 2011 as it was in 1903.

So go, and live syncopated lives.…Be true to Harvard by being true to yourselves. Search for your own sermons. Finish your own sentences. And then rewrite them, again and again.

"The Courage to Not Make Plans"

At the College Class Day, on Wednesday, two seniors offer serious remarks—the Harvard Orations. Laura Jaramillo '10 ('11), a government concentrator and Pforzheimer House resident, spoke about her unusually fraught path to and through Harvard.

Work hard, we have been told since we were kids, and you will achieve your wildest dreams. And so we have worked the nights away, with a sense that if we fill all the check boxes the desired goal must follow.…And yet, I have a terrible thing to say today…: sometimes, plans fall through.…

When I was 13 years old I had my entire life planned out.…I knew what I was going to study, where I was going to work, when I would get married, and exactly how many children I was going to have one day. But I also lived in Colombia in the early 2000s, and the violence that had for years been escalating in the countryside one day came knocking on my door. My family was being threatened by guerrillas, and within a month, we found ourselves at the Miami International Airport with everything we could fit in four suitcases.

I kicked and screamed and complained about the unfathomable unfairness of the world. But life has an implacable way of continuing without break, regardless of how we feel about our broken hearts or trampled dreams. Soon enough, I had to pick myself up, learn English, and get through school like everyone else. After a few more ups and downs, I somehow ended up at Harvard.


JIM HARRISON

Laura Jaramillo

Commencement Confetti

FROM PURITAN TO POLYGLOT
Phi Beta Kappa celebrated its 221st literary exercises on May 24, proudly tracing its roots to the eighteenth century. PBK's 2011 undergraduate marshals suggest the newly diverse demographics of twenty-first-century Harvard: **Edith Yee-Heen Chan**, **Alexander Sarkis Karadjian**, **Iya Megre**, and **Pramod Thammaiah**.

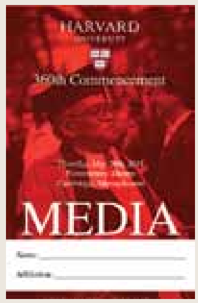
STU ROSNER

FROM 1665 TO 2011. Tiffany Smalley '11, of Martha's Vineyard, became the first member of the Wampanoag tribe in more than three centuries to receive a Harvard degree. Her immediate predecessor was Caleb Cheeshahteaumauk, A.B. 1665. At the afternoon exercises, Smalley accepted a diploma awarded posthumously to Cheeshahteaumauk's classmate and fellow Wampanoag, Joel Iacoomes. Though he completed all degree requirements, Iacoomes perished just before graduation. Also present were Cheryl Andrews-Maltais, chair of the Wampanoag Tribe of Gay Head (Aquinnah); President Drew Faust; Cedric Cromwell, chair and president of the Mashpee Wampanoag Tribe; and Bernard Coombs of the Mashpee Tribe, a descendant of Iacoomes.

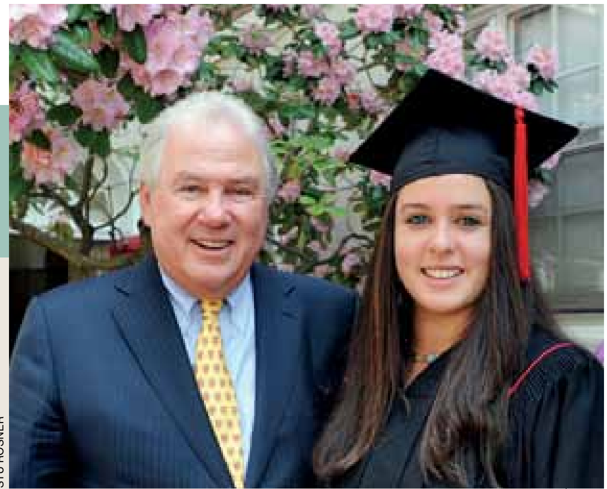
BEARDS ARE BACK
Fashion note: Commencement featured two female presidents, but male facial hair is emphatically in—not only for provost **Steven E. Hyman** and his successor (see page 53), but among honorary-degree recipients **Plácido Domingo**, **John G. A. Pocock**, and **David Satcher** (surely a diverse sample), and Law School speaker **Alec Baldwin**.

THE NUMBERS
The University awarded 7,147 degrees and 70 certificates this year. Harvard College conferred 1,540 bachelor of arts and 16 bachelor of science degrees. The Business School conferred 945 degrees, the Graduate School of Arts and Sciences 904 (including 494 doctorates), Law 790, Extension 739, Education 700....The Divinity School bestowed 143 degrees, and the School of Dental Medicine presented 92 degrees and certificates.

MEDIA MEMORIAL
The pass issued to journalists covering Commencement featured an image of the late **Reverend Peter J. Gomes**. The idea came from media relations assistant **Evan Whitney**, who is in charge of graduation logistics for the University news office. This year, on the day itself, Whitney was a participant, not an observer: having taken government courses in the Extension School since 1997, he was awarded his master of liberal arts degree.



FAY PRIZE
The Radcliffe Institute awarded its Fay Prize—meant to recognize the most outstanding imaginative work or original research in any field by an undergraduate—to history and literature concentrator **Matthew S. Miller**. His thesis, chosen from among the Hoopes Prize winners for outstanding scholarship or research, focused on an exhibition of five South African men in Boston and New York at the outset of the Civil War.



STU ROSNER

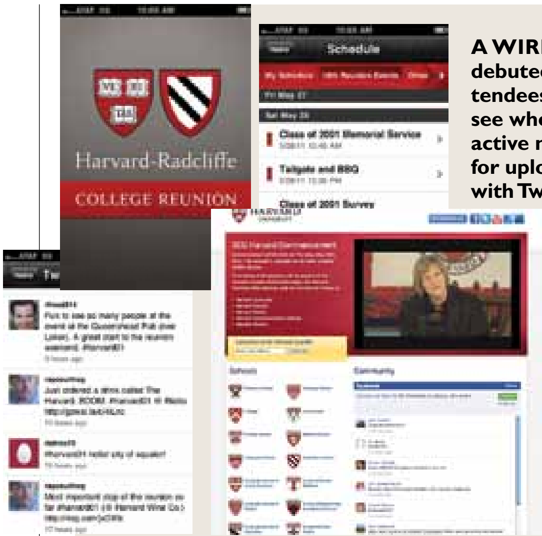
BIG DAYS. On May 25, the expanding Harvard Corporation elected Joseph J. O'Donnell '67, M.B.A. '71, a Fellow of the University's senior governing board (see page 55). The next morning, Commencement day, daughter Casey O'Donnell was awarded her A.B. (joining sister Kate, of the College class of 2009)—making for a memorable Crimson Commencement.

HARVARD: THE STUFF
Harvard Student Agencies' **Harvard Shop** opened its temporary booth in front of Boylston Hall at 6 A.M. Thursday. The gear ranged from class rings and insignia T-shirts to water bottles and diploma frames; the undergraduates on duty said that business was "really good."

HUMORIST, AT WORK
Alexandra Petri '10, one of the funniest people during the 359th Commencement week (she was an Ivy Orator; see "Laugh Lines," July-August 2010, page 56), now plies her trade at the *Washington Post*. Her May 20 ComPost entry (she "puts the 'pun' in punditry")—a mock graduation address titled "What the class of 2011 didn't learn"—gets to the heart of graduates' concerns: "Only 53 percent of 2006 to 2010 graduates are employed, and that

JIM HARRISON

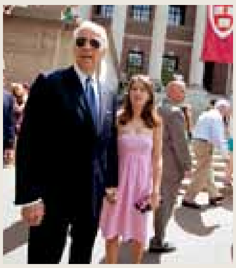
MARSHAL'S MEMORIAL. Sharon Ladd, director of the Harvard International Office, made a personal adjustment to her official outfit as a Commencement marshal's aide. To honor the memory of her late husband, Harold Bolitho, professor of Japanese history emeritus, who died October 23 after a long illness, Ladd wore his Yale doctoral hood with her gown. Their son, James Bolitho, of the College class of 2011, was suitably attired to receive his A.B. degree.



A WIRED WEEK. The Alumni Association debuted a "Harvard Reunion" iPhone app so attendees could log in to view the schedule of events, see who registered, and find locations on an interactive map. The app was integrated with Facebook for uploading and viewing photos and video; and with Twitter, where attendees could tweet their locations and thoughts under the hashtags #harvard06, #harvard01, and so on for each class. The Commencement broadcast, streamed online, was integrated with Facebook, too—so as Graduate English orator Adam Price (see page 51) delivered his remarks, for example, one could read real-time comments, some in Welsh: *"Da iawn,* Adam! Hurry back to Wales."

number might drop if my editor doesn't like the joke I made in that last paragraph." Commenting on recent reports about how little studying most students do, she observes, "Just wait until you're in the workforce! Oh, I'm sorry. You won't be." Petri hasn't lost her touch.

USING HIS HEAD


ROSE LINCOLN/HARVARD NEWS OFFICE

Vice President **Joe Biden,** in Boston for a luncheon promoting neuroscience research, then swung by campus on Wednesday afternoon to celebrate Class Day with niece **Alana J. Biden** '11, a Dunster House resident and co-founder of Harvard's Quidditch Team. Also on campus celebrating new graduates: Connecticut senator **Richard Blumenthal** '67 and New York senator **Charles Schumer** '71, J.D. '74, whose children **Michael Blumenthal** and **Alison Schumer** received A.B.s, and former New Hampshire senator **Judd Gregg,** whose son, **Joshua Gregg,** earned an M.B.A.

GLOBAL DEANSHIP

With **Nitin Nohria** presenting candidates for degrees of master and doctor of business administration for the first time—he became dean of Harvard Business School last July 1, succeeding **Jay O. Light**—the University's increasingly international decanal ranks were evident this Commencement. Nohria, from Rajasthan, India, joins the Graduate School of Design's **Mohsen Mostafavi,** born in Iran, and Harvard School of Public Health's **Julio Frenk,** from Mexico City.

WHAT THEY WAVED

Professional-school students often collaborate to strut their stuff during the morning exercises, rising as one when it comes time to have their degrees conferred and waving some suitable symbol of their skills or aspirations. Hence the Graduate School of Education grads' tradition of children's books (see page 46), or the Kennedy School's inflated globes (see page 45). The lawyers-to-be have, in years past, shown up with inflatable sharks (now they carry gavels). The medically inclined have tended to favor rubber-glove or condom balloons. But this year's prize for innovation goes to the School of Public Health contingent, who showed up with brightly colored apples, bananas, broccoli, and potatoes. Eat your (nonrubber) fruits and veggies, everyone!


STU ROSNER

NEW SHERIFF IN TOWN. The Harvard Kennedy School, entering its seventy-fifth anniversary year, had a strong showing on the Commencement platform: University marshal Jacqueline O'Neill, M.P.A. '81; Graduate English orator Adam Price, about to be M.P.A. '11; and of course Liberian president Ellen Johnson Sirleaf, M.P.A. '71, an honorand. Making this trio a quartet was the new sheriff of Middlesex County, Peter J. Koutoujian, M.P.A. '03, who spoke before Commencement about how important his Harvard education had been in preparing him to lead an office with a $60-million budget and nearly 1,000 employees. At the morning exercises, adapting to his new role, he declaimed (as loudly as his predecessor, but with new phrasing), "The high sheriff of Middlesex County now declares that the meeting will be in ORRRDDEERRR!" As he finished, Middlesex County deputy David Ellison, stationed in front of Sever Hall, yelled, "Hell of a voice, Sheriff!"


JIM HARRISON

STARTING 'EM YOUNG. Many Graduate School of Arts and Sciences students have worked for years to earn their advanced degrees—and have married and started families along the way. And the diploma ceremony in Sanders Theatre can seem long, too, especially for the young ones. That's why, after relaxing in a separate green room, the degree and certificate recipients' children can get their own graduation diplomas and certificates, as did Caleb, Grace, Sophie, and Peter Albrecht, whose dad, Dana, received an S.M. If they get advisers now, the junior scholars may be assured a head start toward earlier completion of their theses.

When I was a sophomore, my family's asylum case came to its final step in the court. Despite nearly a decade of building a new life, of working hard, and doing everything right...[o]ur asylum claim was denied, and once again we found ourselves packing what could fit in a suitcase. Three years ago I left Harvard not knowing when I would have the luxury of staying up all night at Lamont again, or complaining over my House open list about the lack of hot breakfast....

I missed the impassioned debates with my friends in the Pfoho dining hall. I missed the exhilarating feeling of walking into Annenberg and being reminded of the dream that it is to be a Harvard student....

I cannot step in front of this microphone...and presume to impart...some sort of wisdom that you haven't yet discovered on your own. All I can share is what I have learned from my uncanny ability to have my life plans completely fall through: make sure that you live life in such a way, that even if you don't get where you meant to go, it was well worth the trip.

Often people won't congratulate you on doing the things you love, they won't cite you and they won't pay you more. You won't be able to put them on your résumé (though most of us will probably find a way). The great privilege we have had access to comes with great responsibility. But don't forget the great responsibility you have to yourself. Have the courage, every once in a while, to *not* make plans, and discover the wonderful things that could happen. Find, in your busy lives, time to enjoy beauty, to let yourself be fascinated, to get carried away.

"The World Needs Less of the Same"

Graduate English orator Adam Price, M.P.A. '11, roused the morning exercises audience with his words, his delivery—he was a member of Parliament from the nationalist Plaid Cymru party—and the rich voice of his native Wales.

Adam Price

STU ROSNER

In Harvard Yard in 1775 George Washington's army was housed here in Hollis Hall, wracked by exhaustion and fear, sustained only by coffee, canteen food, and the promise of future happiness—it sounds a bit like finals week.

Lined up on the opposite bank of the Charles River were hundreds of my Welsh ancestors, the Royal Welch Fusiliers fighting for the British Army against the American Revolution.

I guess I should apologize for it, really. You seem to have made a success of this independence thing. Well done, and thanks for leaving us Canada.

But the people I think about most today are those of my Welsh ancestors who were on *this* side of the river, fighting *for* the revolution. Who showed an independence of mind whose spirit I want to invoke today.

Fourteen of the signers of the American Declaration of Independence were Welsh, who had found here in America, like I have at Harvard, a space to think and chart their own course. Who were inspired by the dream of freedom, first forged here, that is still troubling tyrants today from Tripoli to Damascus.

Center of Attention

Amid Harvard's vast Commencement spectacle, the formal center—on the dais constructed beside Memorial Church—is still the venue for small gestures that go to the heart of the University and its people. Herewith, a close reading of some 2011 events not prescribed by the "Form of Conferring Degrees" that guides the morning exercises and the people who conduct the business of graduation.

JIM HARRISON

Harvard partners Dudley and Georgene Herschbach

Between the awarding of student degrees and the bestowal of honorary ones, President Drew Faust interrupted the proceedings, saying, "Before we continue, let me take this opportunity to recognize the man standing at the microphone. Steve Hyman will step down this June after a decade of extraordinarily distinguished and devoted service as the provost of the University. All of us who care about Harvard owe him our gratitude. Please join me in applauding and thanking him." Hyman received an especially vigorous ovation from the party on the stage: the deans, Fellows, and Overseers who have worked most closely with him. Faust then presumably returned to the formal script for the honorands, but injected a spontaneous phrase: "The provost—if he's able to speak—will introduce the candidates." Hyman instantly picked up the baton: "Ah, now back to regular business."

James R. Houghton, recognized for helping guide the University's passage "through change and through storm" (including the end of Lawrence H. Summers's presidency, the transition to Faust's, and the financial crisis) in his honorary citation—the valedictory for a lifelong engagement with Harvard—blew the president a kiss upon receiving his degree.

Harvard hands especially appreciated the provost's description of honorand Dudley R. Herschbach as "an engaged citizen of the University" and "no stranger to this ceremony" (for which he provided broadcast commentary for many years—an atypical role for a Nobel laureate). So it was particularly apt that his escort for the day was his wife, longtime Harvard administrator Georgene Herschbach (the couple together served as master and co-master, respectively, of Currier House in the 1980s), rather than the customary faculty member with expertise in the same field.

As the exercises ended and the entire assembly rose in song, Plácido Domingo, freshly anointed Doctor of Music, master of more than 130 different operatic roles, in more than 3,500 performances, scrutinized the program, trying to keep up with the Latin lyrics of the "Harvard Hymn."

All hail the retiring provost, Steven E. Hyman.

Unlike the hidebound British who never broke ranks, the American revolutionaries knew the value of fighting for each other, yet thinking for themselves.

They struck out on their own, and built something new together.

Today…we live in a world of creeping homogenization.…Are we all slowly beginning to speak, to see, to sound the same? And even think alike?

…At its best the university is an incubator of independent inquiry, a cacophony of voices, opinions, arguments, a living debate that reshapes us as we shape it.

But here's the irony: that to graduate we must first master the established theories. So though we are meant to stand here on the shoulders of giants, it can sometimes feel as if that body of accumulated learning, all the tried and tested frameworks and formulas, are weighing down upon us, crushing our creativity.

And threatening to sink us if we are not careful.

In a world where the deepest problems defy easy resolution, surely the greatest risk is not taking risks at all.

So will we have the courage to mount our own quiet revolution?

Generations ago, there was an army of people drawn here from many lands that rejected the status quo. That turned their world upside down.

So let's today salute them: the dissenters, the mavericks and heretics, pioneers and prime movers.

Who know that without our willing to be wrong, we can never be right.

That only by questioning what is, can we begin to imagine what might be.…

The world needs less of the same. It needs us to work together *and* think for ourselves. It needs the commonwealth of us and the republic of you.

So together, let's make today our independence day, and in our liberty strive to serve the common good.

Ellen Johnson Sirleaf

STU ROSNER

Phi Beta Kappa poet Henri Cole

JIM HARRISON

COMPLETE COMMENCEMENT COVERAGE

Recordings and texts of the principal speeches, news reports on University and many school events, and expanded photo galleries are available at **harvardmagazine.com/commencement-2011**. Highlights include **Amy Poehler** at Senior Class Day, **Alec Baldwin** at the Law School, Kolokotrones University Professor **Paul Farmer** at the Kennedy School, the **Phi Beta Kappa** Literary Exercises, addresses by President **Drew Faust** and President **Ellen Johnson Sirleaf**—and **Plácido Domingo** serenading Justice **Ruth Bader Ginsburg.**

"If Your Dreams Do Not Scare You"

Her Excellency Ellen Johnson Sirleaf, the president of Liberia and guest speaker for the afternoon exercises, recounted her own Harvard education—when she conducted research in stacks, *where books were stored—and outlined the hopeful signs of democracy in Africa and of economic recovery and civic revival in her war-torn country. She then drew upon her own life, before her triumphant election in 2005, as a source of some advice.*

I URGE YOU, Harvard graduates, class of 2011, to be fearless about the future. Just because something has not been done as yet, doesn't mean it cannot be done. I was never deterred from running for president just because there had never been any other female elected as a head of state in Africa. Simply because political leadership in Liberia had always been a "boys' club" didn't mean it was right, and so I remained undeterred.…

As you approach your future, there will be ample opportunity to become jaded and cynical, but I urge you to resist cynicism—the world is still a beautiful place and change is possible. As I have noted…my path to the presidency was never straightforward or guaranteed. With prison, death threats, and exile, there were many opportunities to quit, to forget about the dream, yet we all persisted. I have always maintained the conviction that my country and people are so much better than our recent history indicates. I have come to appreciate these difficult moments, but I believe I'm a better leader, a better person, with a richer appreciation for the present because of my resilient past.

So graduates of 2011, the size of your dreams must always exceed your current capacity to achieve them. If your dreams do not scare you, they are not big enough. If you start off with a small dream, you may not have much left when it is fulfilled because along the way, life will task your dreams and make demands on you. I am, however, bullish about the future of our world because of everyone in this Yard, because of those who have graduated today. Fearlessness for the future, youthfulness of the heart, toughness for the distractions, creativeness for the complexities: these remain the indispensable ingredients of national and global transformation. Add to that envelope the elements of hope—robust hope and resilience—and there's no telling what can be accomplished.

The New Provost

Alan M. Garber '77, Ph.D. '82 (M.D. Stanford '83), now Kaiser professor and professor of medicine and economics at Stanford, will become Harvard's provost on September 1, President Drew Faust announced on April 15. Garber succeeds Steven E. Hyman, M.D. '80, who has been provost since 2001; he announced last December that he would step down at the end of this academic year, in June.

"I am humbled but extremely excited at taking this important position at Harvard," Garber said during an interview at Massachusetts Hall (where he appeared wearing a vintage Harvard necktie). "I would be much less excited," he said later, "if this was the Harvard I knew when I was a student." The University of the 1970s, he explained, was extraordinary, "but the progress it has made since then has been nothing short of spectacular," both in the caliber of the individual faculties and in the ways the parts of the institution work together; he gave particular credit to Hyman in effecting the latter gains.

In a statement accompanying the announcement, Faust cited her new colleague's "talent, range, and versatility" and said, "Alan is a distinguished academic leader who brings to Harvard an extraordinary breadth of experience in research across disciplines. He has an incisive intellect, a deep appreciation for the challenges facing research universities, and a loyalty and commitment to Harvard, where he has maintained strong ties since his years as an undergraduate."

The disciplinary breadth is evident. At Stanford, Garber is professor (by courtesy) of economics, health research and policy, and of economics in the Graduate School of Business. He is also a senior fellow in the Freeman-Spogli Institute for International Studies and in the Stanford Institute for Economic Policy Research. He has directed both Stanford's Center for Health Policy and the Center for Primary Care and Outcomes Research at the School of Medicine since their founding and is a staff physician at the Veterans Affairs Palo Alto Health Care System, associate director of the VA Center for Health Care Evaluation, and research associate of the National Bureau of Economic Research (NBER), in Cambridge, where he founded and, for 19 years, directed the healthcare program (responsibilities that brought him back to Massachusetts four times yearly, he reported).

Garber thus straddles two very large academic fields within Harvard—medical research and practice, and the social sciences—a particularly useful qualification for a senior administrator whose responsibilities have come to focus on interdisciplinary collaboration and on University-wide issues such as the operation of the library system. (His predecessor, Hyman, studied philosophy and the humanities at Yale, became a Harvard Medical School professor of psychiatry, served as founding faculty director of the interdisciplinary mind/brain/behavior program, and in 1996 was named head of the National Institute of Mental Health. On the day Garber's appointment was announced, Hyman joked about another similarity: their common "rabbinical look"—although being bearded is not thought to be a formal qualification for the job.)


Alan M. Garber

In an interview, Faust said that as she thought about those qualifications, a commitment to the University's mission and values was central, as was personal compatibility. Beyond that, she sought someone with "a really wide range" of interests and curiosity about the broad spectrum of the University's activities. It was "a high priority for me to find the right person with the first set of qualifications," she continued, "and, if possible, in a different area from my own, with science as an example," complementing her work as an historian.

In considering Garber's administrative experience, she said, her conversations with him and those who know him brought out the clear judgment that "he's a leader" who enjoys colleagues' respect—as reflected in his service on the Stanford committee that oversees tenured appointments (see below). As he returns to an institution where he was an undergraduate, a graduate student, a professor acquainted with many faculty members, and a Medical School visiting committee member, Faust said, Garber "knows the geography, literally and figuratively."

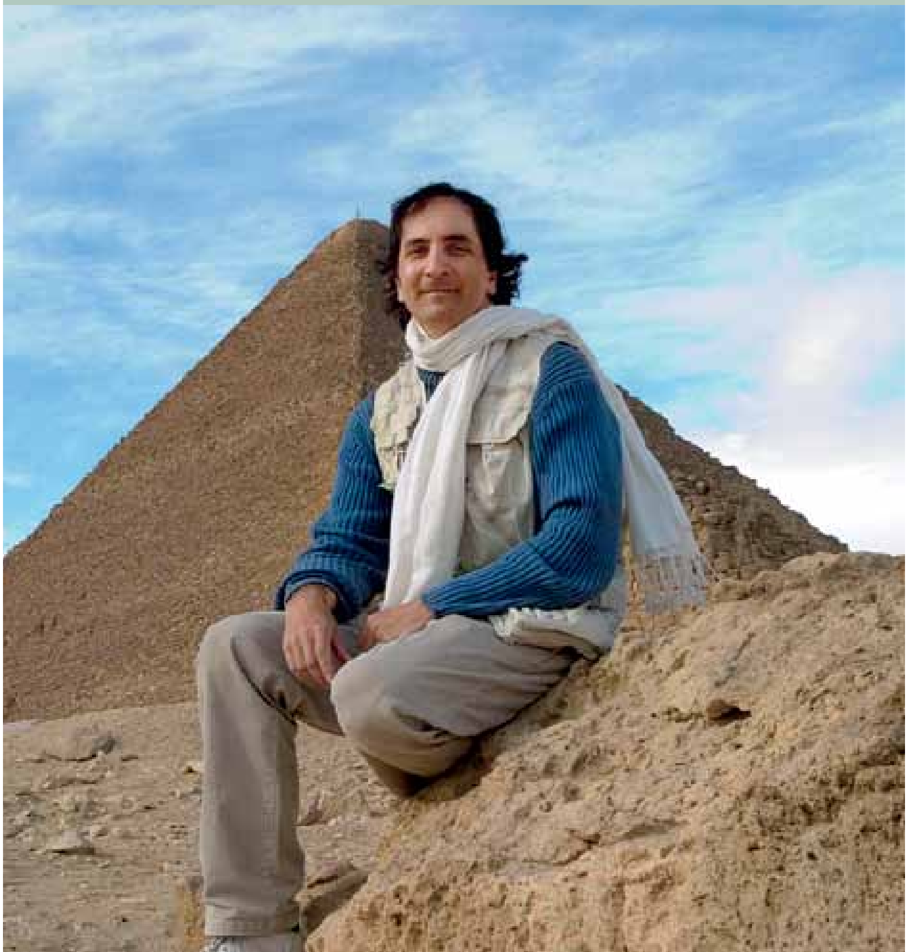
Garber is now a Harvard parent as well; he and his wife, Ann Yahanda (a nonpracticing oncologist), have four children, including son Daniel, a sophomore at the College this past academic year.

Garber's dual interests in economics and medicine emerged early. He recalled in his class's twenty-fifth anniversary report (a member of the class of 1977, he earned his A.B. in 1976, and an A.M. in his fourth

IN THIS ISSUE

Photograph by Justin Ide/Harvard News Office

HARVARD PORTRAIT



Peter Der Manuelian

In fourth grade, the lure of ancient Egypt grabbed Peter Der Manuelian '81, King professor of Egyptology. "I think it strikes everybody—and they grow out of it. I just didn't. For most people it's mummies. For me, it was the grandeur and scale of the monuments and architecture, the beauty of Egyptian art, the fascinating code of hieroglyphs." Manuelian is Harvard's first full-time Egyptologist since 1942. (He previously taught at Tufts.) His life's work has centered on the pyramids at Giza, built in the third millennium B.C. In 1977, he finally got to Egypt, as a teenager doing epigraphy—producing publishable facsimile line drawings of tomb wall scenes and inscriptions for Boston's Museum of Fine Arts (MFA). (He's since become a graphic designer who has designed 30 Egyptological monographs, his own included.) After concentrating in Near Eastern languages and civilizations at Harvard, Manuelian earned his Ph.D. at the University of Chicago in 1990. He has published four scholarly books and three for children, including one that teaches kids how to draw hieroglyphs. An MFA curator since 1987, he has directed its Giza Archives Project since 2000—gathering, digitizing, and cross-referencing all archaeological materials on the pyramids. He's also working with iPad apps to teach hieroglyphs interactively, and gearing up to write a biography of George Reisner (1867-1942), his predecessor as Harvard's resident Egyptologist. A squash player, Manuelian and his wife, writer Lauren Thomas, live in the Back Bay with four cats. A recent *Newsweek* essay he wrote on the Egyptian protests was uncharacteristic. "I usually don't write about A.D. things," he says. "I stick to B.C."

year), "As a freshman, I was a reluctant and ambivalent pre-med. After Ec 10 exposed the latent economist in me, I switched my concentration from biochem to economics. That decision led to a Ph.D. in economics at Harvard and a simultaneous M.D. at Stanford, and eventually to a career that combined the two interests." His dissertation was titled "Costs and Control of Antibiotic Resistance."

His research has focused on improving healthcare delivery and financing, especially for the elderly. According to his Stanford biography, Garber has "developed methods for determining the cost-effectiveness of health interventions" and studied "ways to structure financial and organizational incentives to ensure that cost-effective care is delivered. In addition, his research explores how clinical practice patterns and healthcare market characteristics influence technology adoption, health expenditures, and health outcomes in the United States and in other countries."

In deciding now to turn from research and—at least initially—teaching, Garber said that he had probed the challenges facing Harvard's faculty and students, and higher education, "But overwhelmingly, my impression has been that this is an amazing institution that is well positioned" to maintain and sustain its preeminence [in the future]. He is looking forward, he said, to "assisting Drew in easing that path to the future."

One of the things that made him excited about taking the post, he said, was "the people I'll be working with," particularly a team of deans whom he described as effective collaborators and visionary leaders of their individual schools. In the provost's office, he said, he would be making the transition from a professor, with all the academic autonomy that implies, to a "role of service to the University." The change, he said, is "dramatic," but "the mission is compelling."

At Stanford, Garber was elected to, and chaired, a committee "with no Harvard analog," the University Advisory Board, which makes the final decision on all faculty and tenure appointments. That experience, he said, exposed him to "the work of tremendously talented people" who do "extraordinary work" in fields ranging from studio art to engineering to English to physics. That appreciation for how faculty members in different fields view their

Photograph courtesy of Peter Der Manuelian work should serve Garber well in one of the Harvard provost's key responsibilities: leading the ad hoc committees that make the final decisions on appointments to tenured professorships—a role the president has now in part devolved.

As for moving from the relatively centralized Stanford to Harvard's legendary decentralization, with each school proceeding "on its own bottom," Garber said, "The reality is that neither institution is at the extreme that's sometimes portrayed." Within research universities, he noted, organization charts aside, "in fact, leadership occurs by a process of persuasion and consensus." Of late, he added, Harvard had shown "a much greater ability to work together" across the boundaries of schools and units. "It's not so much about *centralization* as about what you can accomplish" academically, he pointed out, citing collaborations such as the Harvard Stem Cell Institute and the associated department of stem cell and regenerative biology.

Garber said he hoped to build on such collaborations, enlarging their scale and pursuing them wherever appropriate. The task force report on the arts, for example—released as financial crises arose in late 2008—is full of "compelling" ideas, he noted; a high priority is to "make the arts more central to the University's life."

Turning to the environment for higher education, Garber acknowledged "threats to our traditional sources of funds," particularly federal grants for research from the National Science Foundation and the National Institutes of Health. He also cited the growing breadth and excellence of universities in other countries, and the general economic "uncertainty." In light of the latter, he said, "Every major university has to be prepared for all kinds of eventualities," putting a premium on flexibility and nimbleness.

Fundraising will be a priority, too. Garber's involvement in Stanford's capital campaign (now drawing to a close) was limited to that of a faculty member who spoke at events; he said he did not have an administrative role. Where he was involved, he found meeting alumni "enormously rewarding," and he "very, very much look[s] forward to my interactions" with fellow Harvard alumni.

Ramsey professor of political economy Richard Zeckhauser, who was one of

Fellows Three

A day before Commencement, the Harvard Corporation elected three new members, with the consent of the Board of Overseers: Lawrence S. Bacow, M.P.P.-J.D. '76, Ph.D. '78; Susan L. Graham '64; and Joseph J. O'Donnell '67, M.B.A. '71. When they began serving, on July 1, the trio increased the Corporation's ranks from seven to 10, a major step in implementing its planned expansion to 13 members with a new committee structure, among the reforms announced last December (see "The Corporation's 360-Year Tune-Up," January-February, page 43).

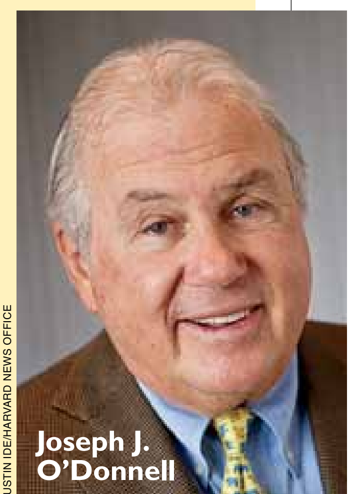
Bacow, who is about to retire after a decade as president of Tufts, was previously chancellor of MIT. He thus brings to the Corporation both extensive higher-education experience (complementing Fellow Nannerl Keohane, president emerita of Duke and Wellesley) and long engagement in the Greater Boston community. When William F. Lee '72 was elected a Fellow last year, he became the first current member other than President Drew Faust to live locally—an advantage in keeping current with the campus. Now, with Bacow and O'Donnell on the board, there will be three Bostonians, plus Faust.


JON CHASE/HARVARD NEWS OFFICE

Lawrence S. Bacow


ROSE LINCOLN/HARVARD NEWS OFFICE

Susan L. Graham


JUSTIN IDE/HARVARD NEWS OFFICE

Joseph J. O'Donnell

Graham, Chen Distinguished Professor emerita of electrical engineering and computer science at Berkeley, was an Overseer from 2001 to 2007 and chaired that board in 2006-2007, serving on the search committee that chose Faust as president. Complementing this knowledge of Harvard governance is her service as the first chair of the Radcliffe Institute's visiting committee; she also helped effect the transition from division to school of Engineering and Applied Sciences—her area of expertise, and a field where Harvard plans significant growth.

O'Donnell is a Boston business executive, past Overseer, current member of the Allston Work Team (which is formulating new plans for campus development, and through which O'Donnell has worked closely with several current deans), and a leading force in Harvard and other philanthropic activities. His fundraising experience—useful as Harvard launches a new capital campaign, and an avowed area of new interest for the Corporation—includes service as a member of the executive committee of the $2.6-billion fund drive that concluded in 1999. He is also a recent College parent, of Kate '09 and her sister, Casey '11 (see page 49).

For more detailed coverage, see **harvardmag.com/new-corporation-members**.

Garber's dissertation advisers (the others were Baker professor of economics Martin Feldstein and the late Warburg professor of economics Zvi Griliches), remembers his former student as "a very bright doctoral student" and a "successful academic entrepreneur" who has run a "quite successful" research operation at Stanford melding physicians and economists, and also—not a given—"a nice person, easy to get along with."

Garber's appearance on campus on April 15 immediately preceded the annual running of the Boston Marathon, an event in which he has previously competed. Citing the new provost's roles as marathon runner, physician, and microeconomist, Zeckhauser said that Garber combines "the energy of the first, the bedside manner of the best of the second, and the understanding of resources of the third"—a broad and eminently useful set of characteristics for the challenges he now faces.

SAEED KHAN/AFP/GETTY IMAGES

May 2011: Libyan women in Benghazi look for family members among photographs of those killed or missing during the popular uprising against Muammar el-Qaddafi.

Lessons from Libya?

In the spring of 2007, this magazine published a brief news item observing that "Lawrence University Professor Michael Porter, perhaps the world's preeminent corporate strategist, is advising the government of Libya on economic reform," that the consulting firm he founded, Monitor Group, "is focusing on energy, tourism, and other industries," and that other consultants were examining issues of financial reform. Porter was quoted to the effect that Libya "pretty much needs universal reform" after years of Colonel Muammar el-Qaddafi's rule.

At the time, Libya had made efforts to settle the claims from its role in the bombing of Pan Am Flight 103 and to disavow its previous ambitions to obtain nuclear weapons. Both steps were part of its campaign to end its status as a pariah nation.

In this context, the engagement of outside experts with the Libyan government did not seem to raise questions.

Porter had already become involved in advising on that nation's economy, as he had earlier tackled hard problems ranging from the economy of America's inner cities to the delivery of healthcare. Other specialists were advising the country as well.

Yet as is now evident—as Qaddafi has turned his weapons on his own people, and as the United States and NATO allies have resorted to bombing his forces—the reform effort came to naught. And, as has come to light through reporting by Farah Stockman in the *Boston Globe* and others, Monitor Group not only offered advice on the economy, but proposed measures ranging from the commissioned writing of a book on Qaddafi, "the man and his ideas," to importing experts to meet with him and perhaps burnish his reputation. In a March 24 statement posted on its website, Monitor acknowledged "some errors in judgment" in the context of "a period of promise in Libya," when "[i]nternational policy at the time sought to seize an opportunity to re-engage a rogue nation for the benefit of global security and the people of Libya."

"We are aware," the statement went on, "that questions have been raised regarding activities that could conceivably be construed as 'lobbying,' and therefore introduce questions of regulatory compliance. We take these questions very seriously." On May 6, Monitor announced that it had retroactively registered "some of its past work in Libya, as well as recent work with Jordan" with the U.S. government in accordance with the Foreign Agents Registration Act—in effect acknowledging that its image-related work had gone beyond consulting to attempting to influence opinion and perceptions as a lobbying entity.

Given that Harvard faculty members have wide discretion to pursue outside activities, did the direct involvement of Porter in Libya, and the engagement of Monitor as a consulting firm, bear on Harvard as an institution? McKay professor of computer science Harry Lewis, a former Harvard College dean, raised the issue at the April 5 Faculty of Arts and Sciences meeting, during the formal question period. (Porter, of the Business School faculty, was not in attendance; for full texts and links to other reports, see harvardmag.com/lessons-from-libya).

In 2006, he recounted, Porter, "acting as a consultant to a firm he founded, prepared a report for the Libyan government. The report promised that the country was at 'the dawn of a new era'" and touted "Gaddafi's Libya as a 'popular democracy system' that 'supports the bottom-up approach critical to building competitiveness….'" The year 2006, Lewis continued, "was not some now-forgotten springtime of Libyan democracy. In the *Economist*'s democracy index, published a few months later, Libya edged out the likes of Myanmar and North Korea for 161st position, out of 167 nations….I don't know that Professor Porter broke any laws or University rules, and I would not want any new regulatory apparatus. Yet taking money to support a tyranny by dubbing it a democracy is wrong. Shouldn't Harvard acknowledge its embarrassment…?" He suggested that President Drew Faust might "remind us that when we parlay our status as Harvard professors for personal profit, we can hurt both the University and all of its members."

Faust, having been notified in advance of Lewis's queries, responded, "When I… think about the different ways that the president's institutional voice can be genuinely useful, serving as the University's public scolder in chief is not high on the list." She continued:

> What is high on the list for me is to help foster an environment in which individual members of our community can openly say what they think and can disagree with one another when their points of view diverge…. What is also high on the list is for me to support the wide discretion of all…the faculty across the University, to pursue the directions of academic inquiry…and the outside activities and engagements that you choose—subject to the norms that are reflected in the policies of the University and the faculties, and always with the hope that each of us will exercise our privileges as faculty members in thoughtful and responsible ways.

In that context, she said that increasing individual and institutional engagement with the world "is a good thing," but also obviously "require[s] us all to be sensitive and self-reflective about our engagements, about how they embody our fundamental commitments and how they relate to our principles of academic freedom and independence and to issues of conflict of interest."

For his part, Porter subsequently weighed in with a statement released initially to the *Crimson*:

> I have worked with dozens of countries around the world on competitiveness and economic development, which is one of my primary fields of research….

Yesterday's News

From the pages of the *Harvard Alumni Bulletin* and *Harvard Magazine*

1931 Immediately after Commencement, workers begin demolishing Appleton Chapel to make room for the new Memorial Church.

1946 Cambridge celebrates its centennial as a municipality and Harvard provides the Stadium as the site for a Boston Symphony Orchestra concert and performances of a pageant, *Pillars of Power,* in which faculty members, alumni, and undergraduates take part.

1951 The *Bulletin* notes that, during the summer, women enrolled in Harvard courses have access to many "precincts sacred to the male" during the academic year: they live in Yard dorms (Grays, Matthews, Straus, and Wigglesworth), enjoy full privileges in Lamont Library, swim in the pool, eat in the Union, and use the boathouses.

1956 Among the various summer jobs reported by undergraduates are clamdigging, Bahamian smack fishing, serving as a surfacing inspector for the Alaska road commission, beer-tasting, and interpreting in Rome for Ava Gardner.

1971 In his final Commencement afternoon address to the alumni, retiring president Nathan M. Pusey foresees an era of "radically altered conditions, sharp change, and formidable obstacles—not just financial, but curricular, methodological, and philosophical as well."

1986 Urging the graduating seniors to think globally, President Derek Bok warns: "Our attitude toward international organizations has grown petulant and shrill. We have left UNESCO, repudiated the World Court, and rejected new initiatives by the World Bank."

1991 Eppie Lederer, better known as syndicated columnist Ann Landers, establishes a $1-million fellowship program at Harvard Medical School to support needy students.

1996 Tom Brokaw, anchor and managing editor of *NBC Nightly News,* is the College's Class Day speaker. Speaking of the information superhighway, he observes, "This is the first time in history that kids are teaching their parents to drive."

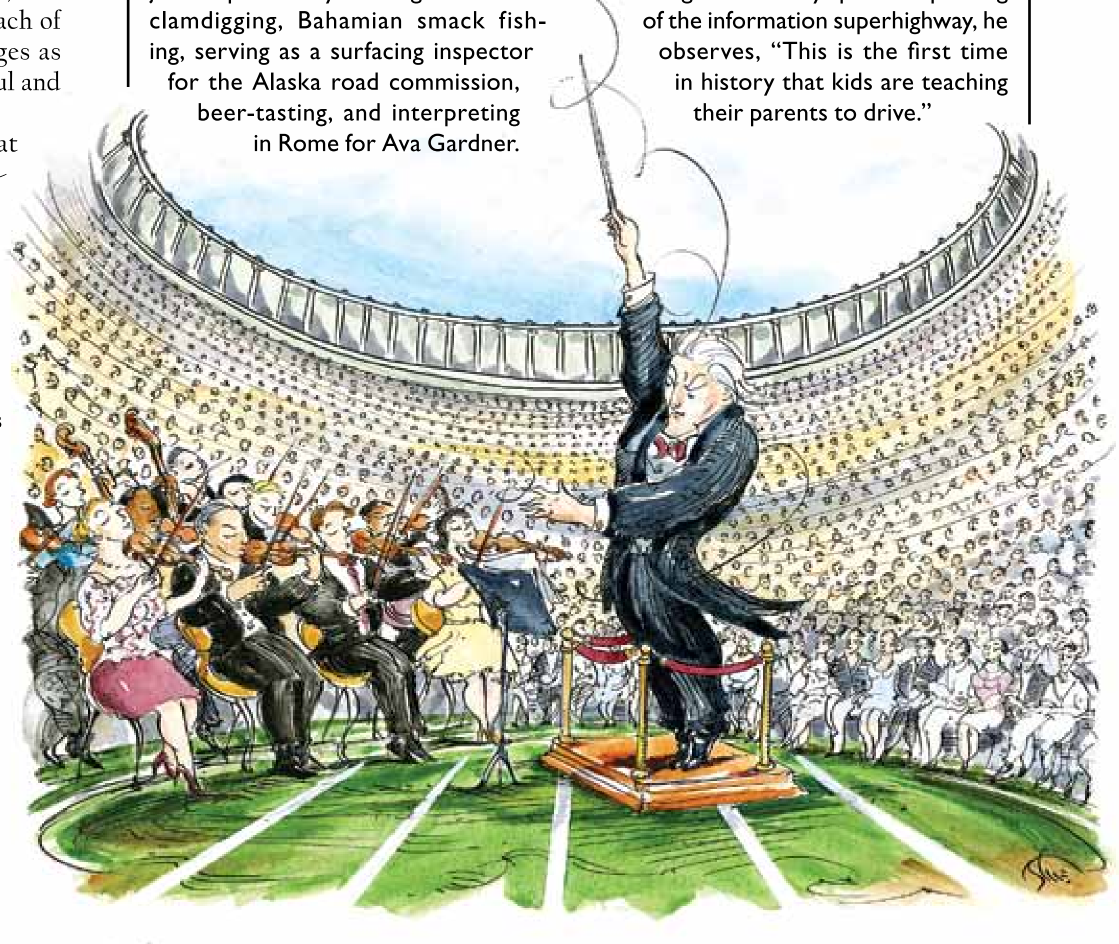


Illustration by Mark Steele

The period beginning in 2004, after Libya had opened up, renounced weapons of mass destruction, and settled international sanctions, marked the first opportunity for true reform in Libya for decades. The reform efforts were strongly supported by the U.S. government. The study was conducted primarily in 2005 and 2006. Among other things, the study identified numerous fundamental weaknesses that needed to be addressed if Libya was going to advance economically and socially, including weaknesses in governance….As it became clear over the following year that vested interests and conservatives had succeeded in halting the reform process, I stopped my work in Libya in the first quarter of 2007 and have not worked there since.

In the immediate aftermath of these exchanges, it seemed unlikely that any changes in fundamental University policy concerning faculty members' outside activities would be forthcoming. But at the least, the potential risks of accepting certain engagements have been made vividly clear once again.

Marc Hauser's Return

Professor of psychology Marc Hauser will be returning to Harvard this fall—but not to teaching. At a psychology department meeting this spring, "a large majority" of the faculty voted against allowing him to teach courses in the coming academic year, according to Faculty of Arts and Sciences (FAS) spokesman Jeff Neal.

Hauser, who studies animal cognition as a window into the evolution of the human mind, has been on a yearlong leave of absence after a faculty investigating committee found him "solely responsible" for eight instances of scientific misconduct. The University has never said whether Hauser's leave was related to the questions about his research. (Last summer, his automatic e-mail response said he was on leave to work on a book, *Evilicious: Explaining Our Evolved Taste for Being Bad*; that title is still forthcoming, reports the publisher, Viking Penguin.)

The courses he was scheduled to teach in 2011-2012, "Origins of Evil" and "Hot Topics in Cognitive Science and Neuroscience," were canceled, said Morss professor of psychology Susan Carey, the department chair. She said the department exercised what power it could; it cannot control whether Hauser advises students or conducts research. Neal said the psychology faculty vote effectively means that Hauser cannot teach in other Harvard departments or faculties, either.

Carey said she was troubled by the fact that the University had released so little information about the case against Hauser: "Harvard has not told us what he was found guilty of, what the evidence was, what the sanctions were." In light of this incident, an FAS committee is considering the procedures involved in such investigations, asking whether they properly balance transparency with concern for the privacy of scholars accused of misconduct.

Last August, FAS Dean Michael D. Smith said five of the eight counts related to studies that "either did not result in publications or where the problems were corrected prior to publication." For the three counts that related to published work, Smith provided citations for the articles, and said, "While different issues were detected for the studies reviewed, overall, the experiments reported were designed and conducted, but there were problems involving data acquisition, data analysis, data retention, and the reporting of research methodologies and results."

Of the three published papers, one, a 2002 *Cognition* article, was retracted. Hauser (who has repeatedly declined interview requests) notified another journal, the *Proceedings of the Royal Society B*, in June 2010 that the video records and field notes that supported a 2007 finding published there "were found to be incomplete" for two of the experimental conditions. He and a colleague returned to the Puerto Rican island where the experiment had taken place and re-ran those parts of the experiment; the new findings replicated the old.

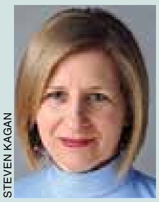
The journal that published the third paper, *Science*, offered more detail about the 2007 article it printed. A coauthor notified the journal in June 2010 that field notes on rhesus monkeys—one of three species involved in the study—were missing. Those notes had been handwritten by a research assistant, and discarded after each day's results were "tallied and reported to [the lead author] over e-mail or by phone," the journal said. In this case, too, the researchers returned to the site (the same Puerto Rican

University People

Innovation Chief

Gordon S. Jones has been appointed the inaugural director of the Harvard Innovation Lab, now being created on Western Avenue adjacent to the Harvard Business School campus. The lab aims to serve entrepreneurs throughout the University and from the surrounding community. Jones previously worked in marketing, product development, and other capacities for the Gillette Company, and as a consultant, among other experiences, and has been a lecturer on marketing at Bentley University and an admissions adviser for the HBS M.B.A. program.

Journalism Director



STEVEN KAGAN

Ann Marie Lipinski

Ann Marie Lipinski, who shared a Pulitzer Prize for reporting on corruption in Chicago and subsequently served as editor of the *Chicago Tribune* for more than seven years, will succeed the retiring **Bob Giles** as curator of the Nieman Foundation for Journalism. Lipinski was a Nieman Fellow in 1989-1990, joining other reporters who enjoy a year of study at the University, and chaired an external review committee, organized by the provost's office, that visited the foundation last year.

Stellar Scientists

STEPHANIE MITCHELL/HARVARD NEWS OFFICE

Gary Chamberlain

Six faculty members were elected to the National Academy of Sciences in May: Berkman professor of economics **Gary Chamberlain**; professor of genetics **George C. Church** (a genomics pioneer who was the subject of the cover story in this magazine's January-February 2004 issue); Higgins professor of mathematics **Joseph D. Harris**; York professor of physics **Andrew Strominger**; Rotch professor of atmospheric and environmental sciences **Steven C. Wofsy**; and Mallinckrodt professor of chemistry and chemical biology **X. Sunney Xie**.

KRIS SNIBBE/HARVARD NEWS OFFICE

George Church

COURTESY OF X. SUNNEY XIE

X. Sunney Xie

Top Teachers

STEPHANIE MITCHELL/HARVARD NEWS OFFICE

Benedict Gross

The Faculty of Arts and Sciences has named five Harvard College Professors—a title conferred for five years on its most outstanding undergraduate teachers who are also distinguished in graduate education and in research. Each also receives funding for a semester of research. Those honored are Leverett professor of mathematics **Benedict Gross**, who separately received the Undergraduate Council's Levenson Memorial Teaching Prize for superb teaching (and who previously served as Harvard College dean); Agassiz professor of zoology **Farish A. Jenkins Jr.**; Rabb professor of anthropology **Arthur Kleinman**, who is also professor of medical anthropology and professor of psychiatry (see page 63 for a graduate-student perspective); Cabot professor of aesthetics and the general theory of value **Elaine Scarry**; and Wolcott professor of philosophy **Alison Simmons** (who co-led the group that devised the General Education curriculum). Separately, at its annual Literary Exercises on May 24, Phi Beta Kappa conferred its teaching prizes on lecturer on sociology **David L. Ager**; Brooks professor of international science, public policy, and human development **William C. Clark**; and Baird professor of science emeritus **Dudley R. Herschbach** (see also page 47).

KRIS SNIBBE/HARVARD NEWS OFFICE

Farish A. Jenkins Jr.

Bradley Prize, Prince of Asturias Award

Kenan professor of government **Harvey C. Mansfield** has been awarded the $250,000 Bradley Prize, given to those whose work is consistent with the Bradley Foundation's emphasis on "preserving and defending the tradition of free representative government and private enterprise" (www.bradleyfdn.org). Mansfield, a prominent campus conservative (see the September-October 1999 cover story, "The 30 Years' War"), used the occasion to speak about University values; read his text at harvardmag.com/mansfield-speech. And Hobbs professor of cognition and education **Howard E. Gardner** has won Spain's Prince of Asturias Award for social sciences, complete with a 50,000-euro honorarium and a Miró sculpture, for his work on multiple intelligences, deemed "decisive in the evolution of the education system" [for] taking into consideration the innate potentialities of each individual."

KRIS SNIBBE/HARVARD NEWS OFFICE

Harvey C. Mansfield

Radcliffe Institute Fellows

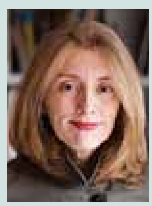
Among the 51 Radcliffe Institute fellows for 2011-2012 (see the complete list at radcliffe.edu) are eight faculty members: Glober professor of applied mathematics and applied physics **Michael P. Brenner**; Lowell professor of Romance languages and literatures and of visual and environmental studies **Tom Conley**; professor of law and of history **Annette Gordon-Reed**; Pulitzer professor of modern art **Maria E. Gough**; associate professor of urban planning **Judith Long**; professor of government **Eric Nelson**; associate professor of organismic and evolutionary biology **Anne Pringle**; professor of systems biology **Pamela Silver**; and professor of history **Daniel Lord Smail**.

ROSE LINCOLN/HARVARD NEWS OFFICE

Michael P. Brenner

KRIS SNIBBE/HARVARD NEWS OFFICE

Annette Gordon-Reed



STEPHANIE MITCHELL/HARVARD NEWS OFFICE

Maria E. Gough

ROSE LINCOLN/HARVARD NEWS OFFICE

Eric Nelson

island) and repeated the experiment; again, the results matched the earlier findings.

The charges leveled against Hauser suggest that his transgressions went beyond mere sloppiness: the "Grey Book" (the document that sets forth FAS policies governing research, instruction, and other professional activities) defines research misconduct as falsification, fabrication, or plagiarism. The fact that two of the studies were not retracted altogether means that "neither of these journals can believe that there was credible evidence of falsification or fabrication," says Carey.

Hauser's peers are split on whether the research practices described in the *Science* correction, and the missing data cited by the other two journals, should have been deemed misconduct by this definition. "At Harvard you're expected to run a huge lab and be collaborating with people all over the place," said Bennett Galef, a psychologist who studies social learning in animals at McMaster University in Canada. "You have very little control over what's going on on a day-to-day basis." In his lab, says Galef, "I see every piece of data every day as it's coming in. But if you have 20 students, you can't do that."

Gordon Gallup, a psychology professor at the State University of New York-Albany (and a previous critic of Hauser's work), disagreed. "The principal investigator has to take primary responsibility" for vouching for the experiment results, and to do that, he said, that investigator has to have direct knowledge of "all of the evidence and all of the procedures and all of the technicalities."

Carey has collaborated with Hauser on three papers herself; that work "was extremely carefully done, and carefully done partly because of Marc's involvement," she said. "I had no inkling of any of these problems."

Visit the online version of this article at harvardmagazine.com/marc-hauser-returns for links to relevant websites and articles.

If there is a finding against Hauser by a federal funding body, more details may emerge. These agencies do not, as a rule, discuss open investigations, but a spokeswoman for the U.S. Department of Health and Human Services Office of Research Integrity told the *Boston Globe* that the office is investigating Hauser; Smith said last year that Harvard was also cooperating with the National Science Foundation and the U.S. Attorney's Office.

Ants through the Ages

Two and a half centuries ago, a young Spanish doctor named José Celestino Mutis arrived in present-day Colombia and promptly began writing hundreds of pages of groundbreaking observations about ants. He sent them in book form to the great Swedish taxonomist Carl Linnaeus, but the volume was lost at sea. "This remarkable man, working entirely on his own, was a real pioneering scientist," says renowned biologist and ant scholar E.O. Wilson, Pellegrino University Professor emeritus and two-time winner of the Pulitzer Prize. "There was nothing for him to read on ants. He learned everything by himself from scratch." Now Wilson, collaborating with Spanish myrmecologist José Gómez Durán, has reconstructed Mutis's field work from rediscovered diaries and papers. In their new book, *Kingdom of Ants: José Celestino Mutis and the Dawn of Natural History in the New World* (Johns Hopkins), the modern scholars "essentially write Mutis's book for him"—restoring a long-lost chapter to the annals of the history of science.

BERT HÖLLDOBLER

PHOTOGRAPH COURTESY OF ROMÁN LORES RIESGO

José Celestino Mutis, in a portrait from the Royal Academy of Medicine, Madrid

The science that, in effect, began with Mutis was unable to benefit from his lost work, and only "began seriously in the mid nineteenth century with an author named Auguste Morel, a scientist from Switzerland," Wilson explains. "Studies really began their modern phase in the United States under the leadership of William Morton Wheeler, who was a professor at Harvard." Wheeler's work strongly influenced the teenage Wilson, who recalls, "When I was 16 and decided I wanted to become a myrmecologist, I memorized his book."

ALEX WILD

ALEX WILD

Top, an ***Atta sexdens*** forager shears off a fragment; above, a leafcutter of the same species completes its cut; right, an ***Atta cephalotes*** worker carries a leaf to the nest.

The field now finds in Wilson one of its most accomplished and best-known contemporary experts. Alongside the book on Mutis, he is simultaneously releasing, with his frequent co-author and former colleague, Bert Hölldobler, a second book, *The Leafcutter Ants: Civilization by Instinct* (W.W. Norton), which comprehensively consolidates the scholarship on

Brevia

FAS's Fitter Fisc

Faculty of Arts and Sciences dean **Michael D. Smith** told colleagues on May 3 that FAS had reduced its unrestricted deficit during fiscal year 2011 (ended June 30) to approximately $16 million—better than the $35-million deficit originally budgeted. He forecast a balanced budget for the new fiscal year, given continued financial discipline, and room for investments in priorities such as information technology and the libraries (where significant administrative savings and service enhancements are sought) and in staffing for the forthcoming capital campaign, intended to be the source of funds for more significant priorities such as House renewal and academic growth. For more details, see **harvardmag.com/fitter-fisc**.

House Renewal Updates

The College has identified Harvard-owned properties that will provide temporary residences for 180 undergraduates displaced by the renovation of **Old Quincy** during the 2012-2013 academic year, the pilot project for the subsequent renovation of all the Houses (see "Prototyping House Renewal," March-April, page 44). Students will live in Hampden Hall, near the Harvard Book Store; Fairfax Hall, opposite the rear entrance to Widener Library; and Ridgely Hall, on Mount Auburn Street. They will continue to dine in Quincy, while enjoying kitchens and cable TV connections in their interim quarters. The graduate students now housed in the buildings will be given priority access to other Harvard-owned apartments. Separately, designs for the renovation—including horizontal links between entryways and new social and arts spaces—were released May 20; see **harvardmag.com/housing-plans** for details and images.

RADCLIFFE'S CHANGING ROSTER. Radcliffe Institute dean Barbara J. Grosz, who assumed the position on an acting basis in 2007 and became dean the following year, announced in mid April that she would relinquish the post on June 30. After a year of leave, the computer scientist will resume her teaching and research activities at the School of Engineering and Applied Sciences, where she is Higgins professor of natural sciences. In thanking Grosz for her service, President Drew Faust said, "Barbara has a talent for nurturing intellectual communities—forging new interdisciplinary collaborations, bringing together scholars from Harvard's schools and around the world." At month's end, Faust named Lizabeth Cohen, Jones professor of American studies, as interim dean, while the search for a permanent successor is organized. Cohen, a past chair of the history department, was a Radcliffe fellow in 2001-2002, and co-chaired Faust's Common Spaces Steering Committee, which examined opportunities to use campus spaces better to promote social, artistic, and intellectual interaction. In other news, the institute announced that it had appointed 51 fellows for the 2011-2012 academic year, after cutting back for two years following the financial crash.

KRIS SNIBBE/HARVARD NEWS OFFICE

Lizabeth Cohen

On Other Campuses

Forging ahead with its ambitious $250-million **Stanford Arts Initiative**, that University has retained **Diller Scofidio + Renfro** (which redesigned Lincoln Center in New York City) as architects for the new McMurtry Building, a 90,000-square-foot home for its department of art and art history, including studios for art practice, design, film, media studies, and documentary film, plus library and gallery space. Construction is scheduled for 2012....**Stanford** is also exploring opening a second campus, in New York City, focusing on applied science, engineering, and graduate education....The **University of Pennsylvania** received a $225-million endowment gift for its School of Medicine from Raymond G. and Ruth Perelman, for whom the school will be named; their gifts to Penn's capital campaign now total $250 million....**Yale** announced that it would make access to all the public-domain digital images in its museum, archive, and library collections available online, free, without license or restrictions on use; 250,000 images are available initially, with millions more forthcoming....**University of Southern California** engineering alumnus John Mork and his wife, Julie, have given his alma mater $110 million for scholarships. He is chief executive of Energy Corporation of America.

Nota Bene

From chile and china. In April, the government of Chile and the state-affiliated China Scholarship Council separately reached agreement with the University to finance students pursuing graduate and professional study at Harvard. The University and Chile will share the expense of supporting 15 Ph.D. students at a time (an increase from the current number of Chileans enrolled), and some master's-degree candidates. The Chinese nonprofit institution will underwrite transportation, living expenses, and tuition for 15 doctoral and 20 master's students annually.

Photograph by Jon Chase/Harvard News Office

Architecture and engineering. The *Crimson* reported in April that two new undergraduate concentrations are being designed for the fall of 2012. The department of history of art and architecture and the Graduate School of Design are collaborating on a program in architectural studies, encompassing theory, studio work, and architectural history, but not aiming for preprofessional certification. Separately, the School of Engineering and Applied Sciences would create a separate course of study in electrical engineering, to distinguish it from the five current tracks within engineering sciences.

ROTC rolls on. Both **Columbia** and **Yale** have reached agreement with the U.S. Navy to reinstate Naval Reserve Officers Training Corps (NROTC) programs. Columbia's will function through the ROTC unit at SUNY Maritime College in Throgs Neck, New York—an agreement very similar to the one Harvard reached with the Navy in March (see "ROTC Returns," May-June, page 45). Yale's NROTC unit will be located on its campus, in the absence of any existing program nearby. Meanwhile, **Stanford**'s ad hoc committee on ROTC recommended that the university also invite the program back to campus.

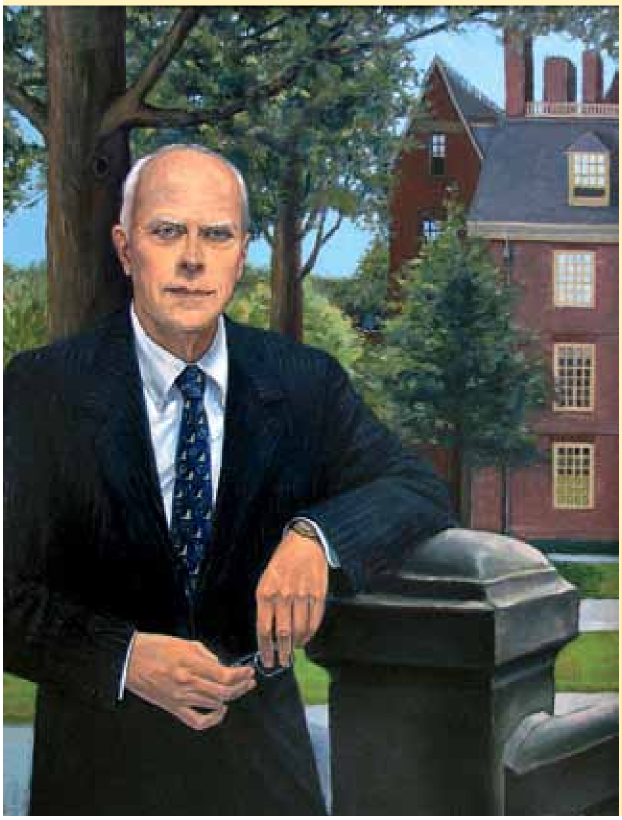
BGLTQ resources. Harvard College dean **Evelynn Hammonds** accepted the principal recommendation from a working group she formed last fall and will create a staff director position to coordinate the "existing—and substantial—supports" for bisexual, gay, lesbian, transgender, and queer undergraduates and to create needed new programs. The task force was co-led by **Susan Marine**, assistant dean for student life and director of the College's Women's Center, which has informally functioned in part as a center for BGLTQ students. Marine noted that Harvard is "the only institution among the Ivies and other elite colleges that does not have a designated point person" for BGLTQ resources and support. Separately, Marine announced her departure at the end of June to become an assistant professor and program director at Merrimack College; she did not have a teaching role in Cambridge.

JON CHASE/HARVARD NEWS OFFICE

Susan Marine

Winter activities week. Students will be permitted to return to campus two days earlier in 2012, during the **January break** created by moving College reading and exam periods to December, with residences opening on the Friday before the Martin Luther King Jr. holiday. In April, College dean Evelynn Hammonds reported to Faculty of Arts and Sciences colleagues that just 37 percent of students surveyed had participated in the events and programs offered during "optional winter activities week." She expressed the hope that in future years, faculty members would organize more of the offerings; they provided just 4 percent of the nearly 100 options in 2011 (staff and students submitted the rest).

Miscellany. Harvard Kennedy School has announced the creation of a new chair—the Schlesinger professorship of energy, national security, and foreign policy—honoring **James R. Schlesinger** '50, Ph.D. '56, a former Overseer who served as U.S. secretary of defense and of energy, as CIA director, and as chair of the Atomic Energy Commission.…Construction has begun on the new $207-million Allston housing complex to which the **Charlesview** residences (south of Harvard Stadium, at the intersection of Western Avenue and North Harvard Street) will be relocated. The current site is at the center of Harvard's now-stalled plans for Allston campus development; the University swapped parcels to gain control of the critical site.…**James Cuno**, Ph.D. '85, former director of the Harvard Art Museums and since 2004 president and director of the Art Institute of Chicago, has been appointed president and chief executive of the J. Paul Getty Trust, with its associated museum, conservation institute, and research wing.…**Laurie Patton** '83, a professor of South Asian culture and religion at Emory University, has been appointed dean of Duke University's faculty of Arts and Sciences.…**Ted Mayer**, assistant vice president for hospitality and dining services—Harvard's director of food services for the past 15 years—has relinquished the position to pursue consulting opportunities.



CAPTURED ON CANVAS. This April saw the unveiling of a portrait of John P. "Jack" Reardon Jr. '60, associate vice president for University relations and, since 1990, executive director of the Harvard Alumni Association. In recognition of a Crimson administrative career that began in 1965, Reardon's class of 1960 commissioned the portrait at their fiftieth reunion. The oil painting by Juan Bastos, an accomplished portraitist from Los Angeles, depicts Reardon standing on the landing in front of Harvard Hall, with Massachusetts Hall in the background. In a nod to Reardon's long service as director of athletics, it hangs in the Murr Lounge of the Murr Center, home of the athletics department.

Photograph courtesy of Juan Bastos

two of the most sophisticated of ant genera: *Atta* and *Acromyrmex*. As the subtitle suggests, these two species are notable not only for their practice of harvesting vegetation, but also for the complex division of labor they adopt in order to use leaves as a matrix for farming the fungi that provide their food. "These ants have the most complex social systems of all the social insects," Wilson explains, "and that makes them the most complex socially of all animals, except for humans."

The two books were conceived independently, but felicitously have ended up bookending a 250-year tradition within myrmecology: Mutis was the first person to record extensive observations of the leafcutter ants. "They excavate the soil, while eating all the green vegetation in the sown lands, and [carrying away the vegetation] with intelligence and speed," he wrote in his diary sometime within five years of 1770. Wilson and Durán present the material from his notebooks on ants in English for the first time, framing it within modern research on the same organisms and behaviors that Mutis puzzled over in an age when Spain still ruled much of South America. "It's rather extraordinary," Wilson points out, "to be able to bracket the beginning of the study of one of the most important insects in the world some 250 years ago and then present the latest that we know about them, which is a great deal."

He notes admiringly that Mutis's science has proved not merely novel for its time, but also quite accurate. "For possibly one of the last times in the history of science, we see how a young scientist began working in a field where there was virtually nothing to go on or published—all he had was folklore and what he could see with his own eyes—and his book shows what it was like to be thinking as a scientist in an early era, and the sort of problems he came up against—how he made do." Wilson also stresses that, even after the thorough treatment he and Hölldobler provide in *The Leafcutter Ants*, there are still many myrmecological observations to be made and problems to be solved: "I hope if you're a young scientist who wanted to work with these ants, and you wanted to know what new areas are open and discoveries to be made, you'd still find some big gaps in this book."

~SPENCER LENFIELD

Mentoring and Moral Experience

On learning how to live • *by* DARJA DJORDJEVIC

ON MARCH 4, Kolokotrones University Professor Paul Farmer, Ph.D.-M.D. '90, and Jim Yong Kim, M.D. '86, G '91, president of Dartmouth College (where he is also professor of anthropology and of medicine), jointly convened "From Social Suffering to Caregiving," a symposium and celebratory dinner honoring Arthur Kleinman on his seventieth birthday. The many-hatted Kleinman—Rabb professor of anthropology, professor of medical anthropology, professor of psychiatry, Fung director of Harvard's Asia Center—had taught both men, who were among the co-founders of Partners In Health, now internationally known for its pioneering delivery of health services to impoverished people in Haiti and elsewhere.

As it turns out, he has shaped entire academic fields, and taught dozens of influential professionals engaged in healthcare, medical scholarship, social policy, and service around the world. Twenty-five of those people joined Farmer and Kim to talk about how Kleinman had influenced their thinking and work. Among them was Darja Djordjevic '08, now a third-year M.D.-Ph.D. student in social anthropology at Harvard. As an undergraduate, Djordjevic had studied with Arthur Kleinman and become acquainted with his wife, Joan Kleinman, a Chinese literature scholar (whose suffering from Alzheimer's disease Arthur described in "On Caregiving," July-August 2010, page 25). Like other participants in the symposium, she knew that it proceeded under the cloud of Joan's terminal illness (she died two days later). Here are her remarks about her teacher, mentor, and friend.

~*The Editors*

"YOU'RE DOING FINE. But don't become merely a drudge," he wrote to me in an e-mail during the summer of 2007. "Spend some nights in the cafés eating *tourchon de fois gras*, sipping a premier wine, and enrich your own aesthetic, gastronomic, and oenological experiences."

A rising Harvard senior, I was doing my first ethnographic fieldwork in Paris, researching the condition of African refugee women at the Comede, a nongovernmental organization that provides free healthcare and social services to migrants from across the globe. For three months, I interviewed female patients, served as an English-French interpreter, and otherwise observed and assisted the staff. I was keen on building my life around what I saw as the powerful union of medicine and anthropology. Nevertheless, I felt anxious and overwhelmed. I doubted my ability to advance health equity and social empowerment of the global poor, and questioned whether I was simply buying into the discourse of scholarly abstractions or truly reaching for a service-oriented life. Arthur's words allayed much of my anxiety. I realized that


Student and mentor: Darja Djordjevic and Arthur Kleinman

Photograph by Jim Harrison

I was not expected to be a martyr, to leave my former self behind in order to embrace an ethos of heroism. Arthur conveyed to me that the source of moral experience is a wholehearted, intense, and multifaceted engagement with all the arts, ideas, sensibilities, and values that brew within us or stir our curiosity. I have come to see this as emblematic of what it takes to be a rigorous anthropologist, and ultimately, what it means to hone our ability to care about and for other people. By pursuing such endeavors and commitments, we sway the homeostasis of our own physiology so that life can become a pragmatic realization of moral values and struggles that define who we are.

During my summer at the Comede, I interviewed women from across West and Central Africa. We shared little in the way of common experience. They were all victims of sexual and political violence. Their stories of poverty, persecution, and loss consumed me. Under Arthur's tutelage, my goal was to interpret their narratives and interactions within the French asylum system, to illuminate the lived experience of gendered violence and social vulnerability. I listened to these women. Although their ability to take action was terribly constrained, I came to recognize their concrete acts of moral resistance, such as denouncing the exploitative acts of their former persecutors in asylum court, or the sexual harassment encountered in migrant housing projects. I saw that macroscale political and economic processes may ensure marginalization in seemingly distant contexts: the transformation from indigent African woman to female asylum seeker did not empower, despite migration from a war zone to the stable outskirts of Paris.

I struggled with my own feelings of inadequacy and inaction as I witnessed the misery of my female informants, fearing that I was a naïve scholar selfishly collecting thick descriptions of suffering for my own academic advancement. Deep in the intersection of the French medical, immigration, and welfare systems, I was receiving a priceless education. What did I have to offer in return? Confronting my first moral crisis as a neophyte anthropologist, I did what Arthur had trained me to do best: I dove in head first. My informants from Anglophone West Africa spoke no French and had to navigate French bureaucracy on their own. I accompanied them to state offices, serving as their interpreter. I quickly took on the same role at the Comede. I spent some Saturday mornings hollering in the pristine boulevards of Paris at protests organized by refugee activists to demand healthcare, education, and asylum. These minor actions defined my moral response and allowed me to try out the habitus of a scholar-activist-advocate.

Migrant-rights protest, Paris, July 2007

DARJA DJORDJEVIC

As soon as I graduated, I returned to France to earn a master's. At the Comede, I helped lead a new women's mental health program, did research at the National Court of Asylum, and engaged in activism for women refugee rights. Colleagues and I secured a meeting with a high-ranking official in the ministry of immigration. In the field, I was fortunate to be surrounded by people whose values and visions of a just society, in which the poor, the refugee, and the citizen should all enjoy the same right to health, resonated with my own. I acquired a more nuanced understanding of what it means to build community and to build communion: to do so we must identify what matters most to us, and thus become better equipped to care for others.

Having worked with Africans in France, at the intersection of the developed and developing worlds, I sought a way to integrate my interests in women's health and chronic disease. I found this in Rwanda, where I volunteered at Partners in Health and helped with the inaugural phase of the national cervical cancer program. On my third day at Butaro Hospital, we saw 42-year-old Vestine, a mother of four and subsistence farmer in a village eight hours away. She was both anxious and happy to be at the hospital. Prior to coming to Butaro, she had consulted a traditional healer, the only care available in her immediate community. With her soft features and warm demeanor, she radiated vitality. Under her white linen shirt, though, she was concealing advanced breast cancer. We kept her in the hospital for a few days and took a needle biopsy, which I packaged for a Boston pathology lab. She was sent home with palliative chemotherapy. Even in Boston, the chances of a cure would have been slim.

Lamenting our defeat, I tried to accept this moment as an inevitable part of the caretaker's confrontation with the limits of individual agency and the enduring imperative to carry on. My commitment was solidified by the momentum and enthusiasm the cancer program had stirred among Rwandan health workers and local peasant women. I was convinced that together, we could make it sustainable.

So often in medicine, there is no cure, no Band-Aid, no clear solution. Anthropology helps us respond to that reality: we move beyond "Do no harm" to deconstruct what is before us and ask, "What can still be done?" We acknowledge that the human race will never eradicate all disease or suffering. Yet if we constantly reevaluate our responses to human need, we propel ourselves to a greater humanity, to a more enduring and meaningful involvement in the lives of others. Anthropology complicates what we take for granted in medicine, reminding us to do better, to look for answers in the backyard of everyday moral and social experience.

Immersed in a society recovering from unspeakable catastrophe, I ruminated on the themes of my own path. In retrospect, I could identify caregiving as a pivotal value in my immediate family. Beginning early in my childhood, I witnessed and participated in the moral, emotional, financial, and deeply personal investments of caretaking, as my parents assumed responsibility for poor and sick relatives living through the wars of secession in the former Yugoslavia. They struggled with disillusionment and exhaustion while collecting humanitarian supplies for the daily victims of a disintegrating society and state that had defined itself as uniquely suited to care for its citizens. It was in my parents' home that I first encountered caregiving as a process in which we repeatedly recast our priorities, identities, and personal narratives in reaction to the plethora of emotions and changes that come with crisis. Even with pure intentions and self-sacrifice, caregiving is a moral act that inevitably brings us face to face with failure, loss, and despair.

Moved by the suffering of others and enraged by injustices, we respond from moment to moment as best we can because the alternative is to remain disengaged, even more powerless. We learn to care for others by being thrust into contact with another human being, another self. However, it may be that the best caregiving involves a dichotomous experience: self-fulfillment and self-knowledge allow for greater empathy and efficacy, but there is a certain element of self-effacement that allows for true service, altruism, and generosity of spirit. In other words, caretaking involves abandoning self-interest to step into the world of another, thus becoming part of something greater than oneself. It was this ideal, so well articulated in Arthur's teaching, that drew me into the space between medicine and anthropology. As in caretaking, the ethnographer abandons her comfort zone to enter a foreign culture: the social codes are unfamiliar; participation is gradually defined; her speech seems tedious with the clumsy cadences of a new language; trust and solidarity evolve slowly. Ultimately, it becomes another home.

If we believe Arthur's assertion that "the world and self are divided, and that is the human condition," the link between medicine and anthropology is hardly elusive. With a stethoscope in one hand and a tape recorder in the other, my task as a physician-anthropologist will be to find the place where the moral interests of the individual and society meet, so that the maximum good can be achieved for both. Arthur has trained me to observe, reflect, and analyze as an aspiring caretaker and social scientist. He has shown me the art of listening, of serving others while staying attuned to the resounding chords of my own narrative. He has introduced me to an ethnography and moral experience that is intensely personal and transformative. Above all, he has taught me how to live!

THE UNDERGRADUATE

Messy Questions, Messy Answers

by SARAH ZHANG '11

Some questions reveal more in the asking than in the answering. As I ranted about the impracticalities of unpaid internships, a friend interrupted, "Can you be on welfare if you're working an unpaid internship?"

Can you? The question was so absurd in its juxtaposition of privilege and poverty, the only proper response was to laugh. "It's never even occurred to me," I said. (All those ways to eke out a living that *had* occurred to me as I was sending my résumé to the land of unpaid internships, a.k.a. New York City, and this was not one of them.) My curiosity piqued, I began asking this question over dinner. The responses of fellow students were similar to my own: *Um… haha…I wonder.* When I posed the question to Gail Gilmore, arts career counselor at the Office of Career Services for more than 13 years, she looked equally surprised: "No one has ever asked me that before." Even my foremost authority on all other matters, Google, was no help on this one. The search term, "unpaid internship welfare" yielded no relevant hits.

The answer to the question is beside the point—more telling is why the question seemed so strange in the first place. For one, it runs counter to the very spirit of social-welfare programs, as the unpaid intern's lack of income is usually a choice. Although unpaid positions at prestigious magazines or nonprofits lack financial compensation, they offer cultural capital, which in turn operates in a completely different paradigm from welfare. To equate the "poverty" of a Harvard graduate who has *chosen* an unpaid internship to real poverty, in fact, feels distasteful. Although I never had any plans to apply for welfare, I was always a tinge embarrassed asking the question, in case people thought that I did.

Socioeconomic class runs as an undercurrent through Harvard. At its meritocratic ideal, college is meant to be an equalizer, but achieving that goal is not just a matter of making college affordable through financial aid, because socioeconomic class is manifest in the myriad large and small lifestyle choices that undergraduates make. Harvard does recognize this. Unlike most other universities, it charges the same room and board regardless of whether you're living in a cramped walkthrough or the top floor of Leverett tower, and it has only one dining plan, which offers the same food to everyone. Of course, indicators of socioeconomic status exist that can't be erased by any official technique short of mandating institutional conformity: how often you eat out, where you go for spring break, whether you know how to act at fancy events, how you decorate a dorm room, what you can afford to leave behind as trash when you move out of that dorm room. (Working dorm crew after the May move-out, I found designer clothes and whole sets of perfectly nice furniture.)

But even if Harvard cannot provide a completely level playing field, it can provide a lever. Regardless of your parents' income, you can, if you so choose, go into a career that pays in the 90th percentile straight out of college.

At the same time I was grumbling about unpaid internships, I had friends from the same middle-class background who were planning a very different type of postgraduate New York life. They had lived there the previous summer, completing the internships that led to their imminent Wall Street jobs. They called brokers to rent Manhattan apartments and self-consciously protested that half their five-figure signing bonus went for taxes—a sum that still amounted to several months' salary for an entry-level editorial assistant. I sensed our lifestyles diverging.

My chosen field of journalism, science journalism more specifically, is not selected for its lucrative opportunities. With real life impending during my senior year, I began to see my lack of future income as a point of pride. I thought I was being practical, too: reading recipes for "poor porridge" (oatmeal, chopped vegetables, and any leftovers from the fridge) and stringing together four jobs to save money. But I was also romanticizing being young and poor. Hunger took on an electrifying meaning—to want something strongly enough to be willing to go hungry for it. I believed my choice to be truer for the suffering that was likely to come. Of course the only hunger I actually experienced was quickly alleviated by a trip to the dining hall or the Kong.

A friend once told me that my interest in writing had everything to do with status. I looked at him skeptically: "What status? I'm never going to make any money." But if I couldn't admit it then, I do admit it now. Although careers in journalism and the arts rarely pay well, they generally carry prestige that a similarly paid blue-collar job does not.

To reconcile myself to my likely lack of future financial compensation, I developed an allergic reaction to certain high-salaried jobs, such as finance and medicine. These were also the fields that I, as the child of Chinese immigrants, felt not so subtly pushed into—and not just by my parents. When my Chinese dentist found out that I studied neurobiology at Harvard, she remarked, "You're going to med school right? You'll make so much money as a doctor!" I protested against her fingers, firmly lodged in my mouth, but she took my ambiguous grunting as a yes.

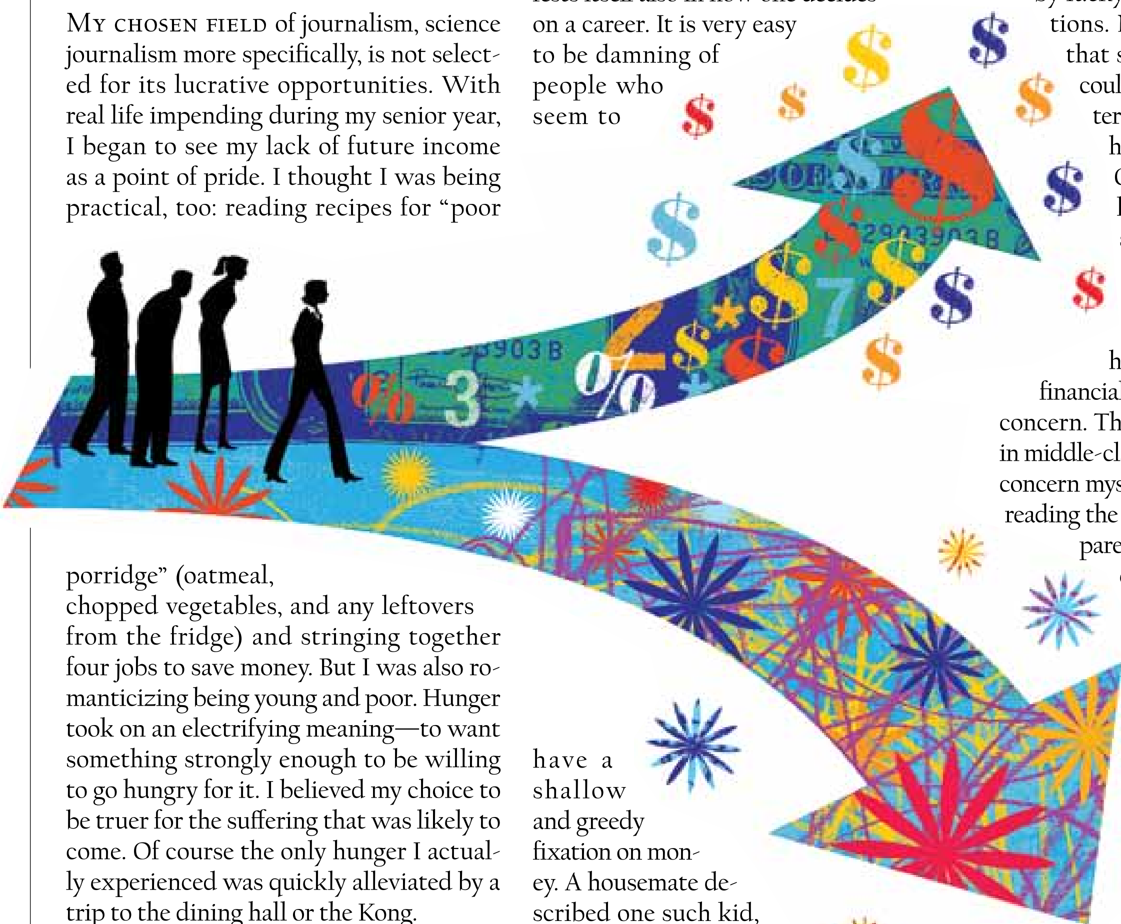
My romanticizing of being poor and my desire for a job with cultural capital were both, I came to realize, reflections of my own privilege. Socioeconomic class manifests itself also in how one decides on a career. It is very easy to be damning of people who seem to have a shallow and greedy fixation on money. A housemate described one such kid, who wore only T-shirts from recruiting fairs and whose one goal in life was a six-figure salary. It turned out that he was supporting his single mother and younger sibling. His obsession with money was not greedy but merely practical.

Most of my close friends are academics and artists whose chosen careers have no guarantee of financial stability. This probably does reflect a bias, conscious or not, on my part. But those friends who come from lower- or middle-class backgrounds have all expressed anxiety about the worthiness and practicality of their chosen paths. Lack of money makes us realize money's true value.

I always thought my parents were unimaginative when they told me to consider finance or medicine, but now I realize they were being practical. Because these careers have a delineated path, they are actually the most meritocratic: if you jump properly through a series of hoops, success awaits at the end. In contrast, careers in journalism and the arts are governed much more by lucky breaks and personal connections. My parents did not belong to that stratum of society where they could call a friend and get me an internship at the *Wall Street Journal* (as happened to someone I know). Of course, who and what you know both matter in all professions, but one or the other matters more in different jobs.

My father came to the United States with less than $100 in his pocket, and, understandably, financial stability was my parents' main concern. Thanks to that, I largely grew up in middle-class comfort. This allowed me to concern myself with going to museums and reading the right kinds of books, which my parents encouraged to some extent, even if they recognized none of the artists' or authors' names. What I desired was capital of the cultural kind. Being able to afford an unpaid internship reflects privilege, but the very notion that you can choose the type of career where unpaid internships are the norm reflects a kind of privilege, too.

I did try to find out whether unpaid interns are eligible for welfare, but the answer is messy, varying state by state and program by program. As to why we choose the careers we do—that answer is messy, too.



Berta Greenwald Ledecky Fellow Sarah Zhang '11 has graduated and heads to Israel this fall to travel, write, and do field research on a Booth Fellowship. In other words, she does not have a job.

Illustration by Michael Austin

Dominant Flotilla

Since harry parker became head men's crew coach in 1963, Harvard has been a steadfast powerhouse on the water. Yet some years are more powerful than others, and this spring Parker's crews dominated Eastern rowing in a way that was rare even for the Crimson. At mid May's Eastern Springs regatta at Lake Quinsigamond in Worcester, Massachusetts, Harvard captured the Rowe Cup for overall heavyweight supremacy, sweeping (for the sixth time in Harvard history) the freshman, junior-varsity (JV), and varsity events. In the varsity final the Crimson were two seconds in front of Princeton, which edged Wisconsin for the silver.

Next up was Yale, at the annual, ancient Harvard-Yale boat race on the Thames River in New London, Connecticut (see "The Mystique of Red Top," May-June 2010, page 66). Last August, Yale hired Steve Gladstone, the 68-year-old head crew coach and former athletics director at the University of California at Berkeley, to run their men's crew program. Gladstone is one of the nation's preeminent rowing mentors; during his long career, his crews have won 11 Intercollegiate Rowing Association (IRA) championships, i.e., national titles. Yale, with some fine athletes in its boathouse, was aspiring to improve its competitive results—having been swept, for example, in each of the past three years by Harvard. But the tide has not yet turned: on May 28, Harvard again brought out the broom at the 146th running of the boat race, leaving Yale's varsity 13.4 seconds behind, its JVs 20 seconds back, and the Eli frosh 21 seconds astern for a fourth consecutive Crimson sweep. Yet the Bulldogs were hardly unique victims. In the 2011 spring season, those three Crimson heavyweight eights entered 27 dual races and regattas: final record, 27-0.

Charlie Butt's lightweight crews were similarly overpowering. At the Eastern Sprints, Harvard won the Jope Cup for overall lightweight superiority, taking the varsity and JV championships and thus bringing to Newell Boathouse five of the six Sprints titles that 18 different colleges' crews had vied for at the regatta. Harvard's varsity and JV lights were both undefeated all spring; only the freshman lightweights, 3-3 in head-to-head races and seventh at the Sprints, suffered losses.

At the Eastern Sprints in Worcester, Harvard's heavyweights (above) and lightweights celebrate their wins.

COURTESY OF CRIMSON ATHLETICS

In early June, the heavyweight crews and the varsity lights all made their respective grand finals at the IRA regatta in Camden, New Jersey, but none was able to record a national championship there. University of Washington crews edged both the Crimson varsity and JV boats, by 2.7 seconds and 1.6 seconds, respectively, while the freshmen claimed the bronze, 3.7 seconds behind California, with Washington second. In a true photo finish, Yale nipped the varsity lights by a mere .022 seconds. Given the sterling spring of rowing, Harvard will no doubt send crews to the Henley Royal Regatta in England, in late June (after this issue went to press).

ALUMNI

The Brain as Art

Carl Schoonover '06 merges science and aesthetics.

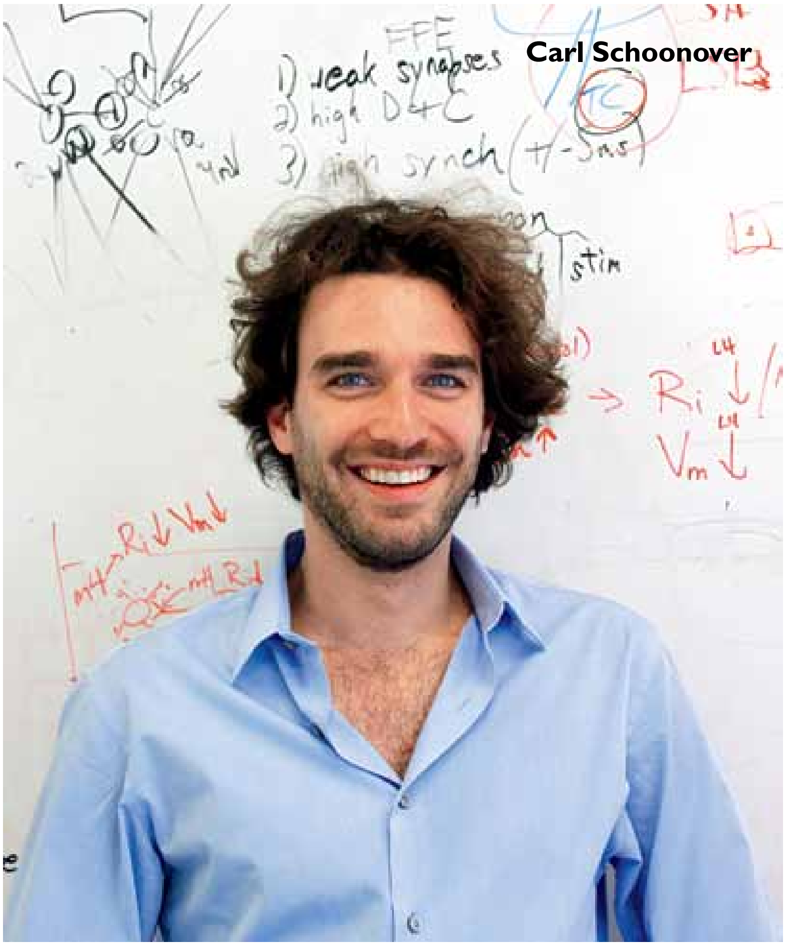
With flyaway hair and distinctive scarves—a fashion holdover from his childhood in France—Carl Schoonover '06 cuts a stylish figure in the lab at Columbia's doctoral program in neuroscience. But as a National Science Foundation-funded graduate student dedicated to researching brain circuits, he's more inspired to talk about what goes on inside the head than what grows on top.

The convergence of the aesthetically beautiful and the scientifically compelling forms the heart of Schoonover's *Portraits of the Mind: Visualizing the Brain from Antiquity to the 21st Century.* The recent book features stunning images, ranging from medieval sketches and delicate nineteenth-century drawings by the founder of modern neuroscience, Santiago Ramón y Cajal, to the modern Brainbow, in which neurons are seen in color thanks to fluorescent proteins. (Brainbow was developed in the lab jointly run by Knowles professor of molecular and cellular biology Jeff Lichtman and professor of molecular and cellular biology Joshua Sanes, where Schoonover worked as an undergradu-

Phrenologists held that the specific site of bumps on the skull, as marked on this nineteenth-century specimen, helped indicate a subject's cognitive or moral strengths and weaknesses by revealing the volume of brain area beneath each one.

PHOTOGRAPH BY ESZTER BLAHAK/SEMMELWEIS MUSEUM ate; see "Shedding Light on Life," May-June 2008, page 40.) "It seems improbable," Schoonover says, "that we can extract so much structure from something that, just looked at under a microscope, is gray and fairly amorphous. There are many beautiful stories about how you treat that slice of brain tissue—manipulate it, denature it—in order, paradoxically, to reveal its true nature."

So entranced was Schoonover by the brain that he used to keep especially wondrous images of neurons in his wallet and show them off like a proud parent. Once he and a woman struck up a conversation at a Manhattan café, "and things led as they invariably do to brains," he explains. Out came the pictures and the woman, an editor at Abrams Books, soon became *his* editor for *Portraits of the Mind.* "This is the stuff scientists are looking at on a day-to-day basis," Schoonover explains, yet the images and data are usually cordoned off in the pages of scientific journals. To reach a wider, lay audience, each chapter in the book details different techniques for studying the brain, such as Brainbow, electrical recordings of neuron activity, and antibody staining. "If the images are extraordinarily beautiful," Schoonover writes in the preface, "I would argue that the principles underlying the techniques that created them are in some instances even more exquisite."



Carl Schoonover

The book balances the scientist's obsession with detail and the artist's appreciation for beauty, a reflection of Schoonover's own multifaceted sensibilities: hands-on researcher, student of philosophy, writer, and lover of the arts. At Harvard, he organized concerts at the Signet Society and Lowell House—he used to play the saxophone and the violin—and was klappermeister for Lowell's Russian bells. At Columbia, he works full-time in a lab, but has made time to cofound NeuWrite (a collaborative forum for scientists and writers), attend music concerts weekly, and host a radio show on classical and contemporary music that occasionally discusses music's relationship to the brain and counts, among its past guests, neurologist Oliver Sacks and Daniel Levitin, author of *This Is Your Brain on Music.*

"He's very eager and kind and intent on drawing people out," says his roommate, fellow doctoral candidate Andrew Fink. One day Schoonover struck up a conversation with a man on the subway who turned out to be an important administrator at the Morgan Library and Museum, who was carrying a box of opera records he was getting rid of. Schoonover offered to add the LPs to his own collection (2,500 albums in his apartment and 1,000 more in storage). The man became a friend and frequent dinner guest. One of the few things Schoonover cooks is Julia Child's recipe for beef bourguignon; the recipe is covered with meticulous annotations that often have him in the kitchen acting "with ferocious exactitude" at 3 A.M., Fink reports. "Carl," he adds, "is very good at bringing together people who care about things and creating situations where it feels okay to be weirdly passionate about what you do."

Schoonover's ability to pursue, in tandem, what are sometimes seen as opposed interests made him stand out even at Harvard, his friends and colleagues say. "Carl proposes these fairly ambitious projects that look like they're straddling fields in a way that doesn't seem realistic," says his mentor, Joshua Sanes. "They seem like a prayer for disaster, but he's pulled off every one of them." That gift, combined with a highly adaptable intellect, a bottomless well of enthusiasm, and what a former lab mate described as "an unusual lack of self-consciousness" may help explain why he seems to be extremely good at so many things.

SCHOONOVER'S expatriate American parents, a retired information-technology security specialist and a homemaker, moved to France, looking for a "change of scene," shortly before he and his siblings were born. Although he recalls no special early love of science, he says he chose that track over humanities (despite being clearly drawn to philosophy) in secondary school to preserve options in the European system of education. "I did not enjoy the science classes," he reports, but was always drawn to the intersection of philosophical and scientific questions, such as how language develops and how the mind works. He was devoted to the concept of open inquiry fostered by both disciplines, and did have one thrilling glimpse into the creative and entrepreneurial aspects of scientific experimentation, thanks to his lycée's biology teacher, Emmanuel Ferraris, "who taught me many years ago that biology can be beautiful, even when it is confusing." (*Portraits of the Mind* is dedicated to him.)

"In the classroom, the way you learned science was to learn facts and replicate experiments with known outcomes," Schoonover says of his French education. "But Ferraris had us design and do an experiment of our own." Schoonover focused on a friend who was a heavy smoker and structured an experiment to see what would happen to the latter's oxygen capacity if he quit for a few weeks. "You could formulate a question and, if you did the process carefully enough, you would get an answer," he says. "To this day, I find that mode of inquiry exhilarating."

Throughout college, Schoonover balanced his interests in philosophy and biology, first at Columbia, where he was so intrigued by lab work that he approached a research director, said, "I am very eager and completely ignorant," and landed a position washing dishes. That slowly evolved into actual research and three summers of working on neuroscience projects.

At the same time, he was still exploring philosophy, and transferred to Harvard in his junior year to pursue subjects like Wittgenstein and logic, along with science. "I was more idealistic when I started out about the possibility of doing both science and philosophy," Schoonover recalls. But in the end, he found that "the neuroscience I am most interested in is at the level of molecules, cells, circuits, which doesn't have much to do with the questions philosophers were asking about mind and language."

In an introductory neuroscience course taught by another formative teacher, professor of molecular and cellular biology Venkatesh Murthy, Schoonover read a paper by Sanes about following the day-by-day development of microscopic neuronal structures in a living mouse. "I was blown away," he recalls. When he found out Sanes was coming to Harvard to open the Center for Brain Science, he immediately e-mailed to ask about joining the lab. They met, and Sanes welcomed him aboard. "He was very generous, and gave me a chance," says Schoonover, who worked in the lab for the rest of his time at Harvard, even taking a semester off, funded by Sanes, to be there full-time. "If there was one person who launched me into a life of science, it was Josh," he adds. "The time there convinced me that this was the right thing for me."

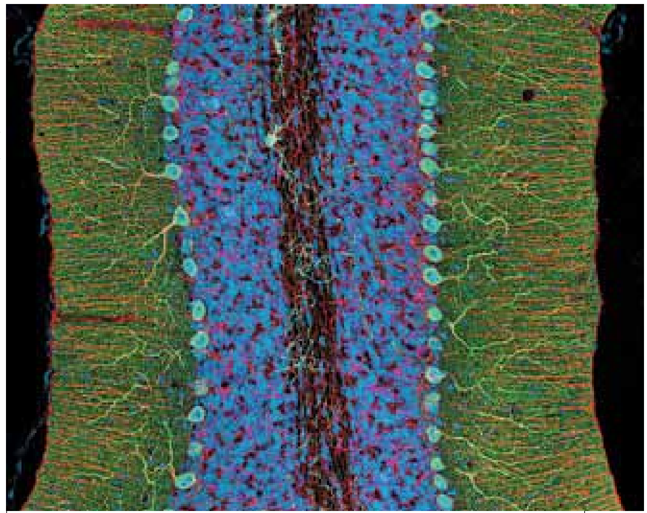


IMAGE COURTESY OF THOMAS DEERINCK AND MARK ELLISMAN (2004)

A photomicrograph showing different components of the rat cerebellum, including Purkinje neurons in green, glia (nonneuronal cells) in red, and cell nuclei in blue.

Still, Schoonover deliberately concentrated in philosophy, thereby avoiding a raft of required science courses. "I knew there was a good chance that science would be my life in the future, but I did not see coursework as the means of getting there," he explains. "In a lab you are asking questions; in the classroom, the main activity is to absorb knowledge and things that are already established. It's a

The Senior Seniors

The oldest graduates of Harvard and Radcliffe present on Commencement day were **Marjorie Thomas** '42, 92, of Bedford, Massachusetts (accompanied by her husband, Edward Thomas '41, who was celebrating his seventieth reunion), and **Donald F. Brown** '30, Ph.D. '55, 102, of Stow, Massachusetts. Both were recognized at the afternoon ceremony. (The oldest *class* representative was **George Barner** '29, 102, of Kennebunk, Maine, who is three and a half weeks younger than Donald Brown.) Marjorie and Edward Thomas were married while she was still at Radcliffe College. Because he was in the U.S. Navy at the time, she left college to be with him, but more than three decades later she returned to campus "because I had made a promise to my mother that I would graduate." She received her bachelor's degree in 1978.

According to University records, the oldest alumni include: **Halford J. Pope** '25, M.B.A. '27, 107, of Hilton Head, South Carolina; **Rose Depoyan** '26, 105, of Brockton, Massachusetts; **Edith M. Van Saun** '29, 104, of Sykesville, Maryland; **Priscilla Bartol Grace** '58, 104, of Woods Hole, Massachusetts; **Ruth Leavitt Fergenson** '28, 103, of Rockville, Maryland; **Dorothy P. Collins** '30, 103, of Hyde Park, Massachusetts; **Rawson L. Wood** '30, 102, of Center Harbor, New Hampshire; **Elliott C. Carter** '30, 102, of New York City; and **Bertha Fineberg** '31, 102, of Gloucester, Massachusetts.

Marjorie Thomas

Donald F. Brown

Photographs by Stu Rosner

very different mindset. I found that I like getting my hands dirty."

Today, in Randy M. Bruno's lab at Columbia, Schoonover studies how the physical connections between neurons affect the flow of information in the brain. His area of specialization is the rat barrel cortex, where movements from the whiskers are registered: How does a neuronal circuit translate the movement of individual whiskers into a representation of the rat's environment? In pursuit of an answer, Schoonover divides his time between live rats and the microscope, where he is working on a novel technique for identifying synapses, the connections between neurons. "It's a fun surgery," he says of the delicate two-hour operation he performs to insert electrodes that record neuronal activity in an anesthetized rat's brain. A dentist drill is used to thin down the skull, then a square half a millimeter on the side is cut into the now paper-thin bone. Once the bone is removed, Schoonover peels away the dura mater, the one-tenth-of-a-millimeter-thick membrane surrounding the brain—all without touching or damaging the soft tissue underneath.

Now midway through his doctoral training, Schoonover says his current work focuses on where synapses are formed on the branches of individual neurons. "The spatial arrangement of synaptic connections on a neuron can strongly influence its electrical function. Thus, as for many other areas of biology, there is a tight relationship between structure and function," he says. "The work contributes a tiny piece to the giant puzzle of looking at how synapses are arranged and transmit information."

Italian histologist and future Nobel laureate Camillo Golgi made this drawing of a dog's olfactory bulb in 1875. The features were revealed by a revolutionary method for staining nerve tissue that today bears his name.

COURTESY OF DR. PAOLO MAZZARELLO/ UNIVERSITY OF PAVIA/DEPARTMENT OF EXPERIMENTAL MEDICINE/SECTION OF GENERAL PATHOLOGY

Schoonover is intent on explaining science; *Portraits of the Mind* was partly born from frustration with how inadequately scientific techniques—and science in general—are presented to the general public. The media often focus too much on results over process, he believes: "They get this final packaged story that has a weird, misleading ring of truth along the lines of 'This is how things are,' instead of, 'We conclude this, based on circumstantial evidence that relies on these techniques that are more or less reliable.' *That's* how scientists actually communicate." NeuWrite, the forum he co-founded at Columbia late in 2007 with biology department chair Stuart Firestein and then-graduate student Clay Lacefield, was set up to bring scientists and writers together to foster more accurate and enticing narratives. *Portraits of the Mind* was workshopped there, and several other book projects by members are pending, as well as a stream of mainstream science articles, including one on optogenetics coauthored by Schoonover published in the *New York Times* science section in May. The long-term plan is to scale up NeuWrite, Schoonover adds; a second, parallel, New York City-wide group is set to launch this fall and there is talk of starting a Boston counterpart.

Schoonover has been giving public presentations across the country and in Europe. He argues that dialogue is essential because American scientists serve, for the most part, at the discretion of the public, thanks to their government funding. "It is incumbent on us," he adds, "to explain what we are doing."

~SARAH ZHANG

From left to right: Richard Wall Lyman, Nell Irvin Painter, Heisuke Hironaka, and Jeffrey Alan Hoffman

Graduate School Medalists

The Graduate School of Arts and Sciences Centennial Medal, first awarded in 1989 on the occasion of the school's hundredth anniversary, honors alumni who have made contributions to society that emerged from their graduate study at Harvard. It is the highest honor the Graduate School bestows, and awardees include some of Harvard's most accomplished alumni. The 2011 recipients, announced at a ceremony on May 25, are: **Heisuke Hironaka,** Ph.D. '60, Fields Medal-winning mathematician and popular author of 26 books on science, mathematics, education, and creativity; space-walking astrophysicist **Jeffrey Alan Hoffman,** Ph.D. '71, professor of the practice of aerospace engineering at MIT; historian and former Stanford president **Richard Wall Lyman,** Ph.D. '54, now Stanford's Sterling professor of humanities emeritus; and scholar of U.S. history **Nell Irvin Painter,** Ph.D. '74, Edwards professor of history emerita at Princeton.

Photograph by Jim Harrison

Voting Results

The names of the new members of the Board of Overseers and elected directors of the Harvard Alumni Association (HAA) were announced during the HAA's annual meeting on the afternoon of Commencement day.

As Overseers, serving six-year terms, voters chose:

Flavia B. Almeida, M.B.A. '94, of São Paulo, Brazil. Partner, The Monitor Group.

Richard W. Fisher '71, of Dallas. President and CEO, Federal Reserve Bank of Dallas.

Verna C. Gibbs '75, of San Francisco. General surgeon and professor in clinical surgery, University of California, San Francisco.

Nicole M. Parent '93, of Greenwich, Connecticut. Co-founder and managing partner, Vertical Research Partners, LLC.

Kenji Yoshino '91, of New York City. Chief Justice Earl Warren professor of constitutional law, New York University School of Law.

Candidates selected as elected directors of the HAA, serving three-year terms, were:

Rohit Chopra '04, of Washington, D.C. Policy adviser, Consumer Financial Protection Bureau.

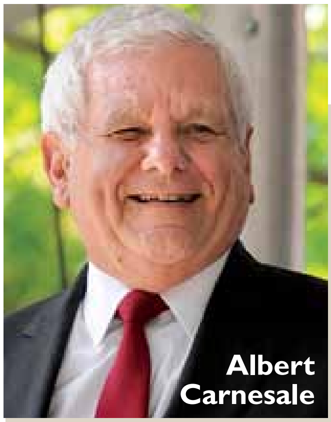
Tiziana C. Dearing, M.P.P. '00, of Bedford, Massachusetts. CEO, Boston Rising.

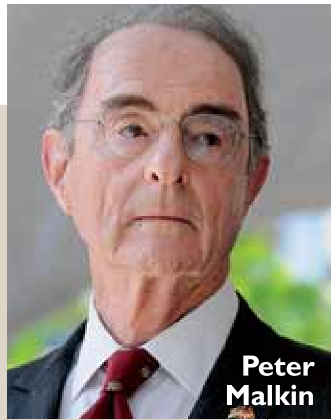
Katie Williams Fahs '83, of Atlanta. Marketing consultant/community volunteer.

Charlene Li '88, M.B.A. '93, of San Mateo, California. Founding partner, Altimeter Group; author.

Sonia Molina, D.M.D. '89, M.P.H. '89, of Los Angeles. Endodontist.

James A. Star '83, of Chicago. President, Longview Asset Management.





Harvard Medalists

Three people received the Harvard Medal for outstanding service to the University and were publicly thanked by President Drew Faust during the Harvard Alumni Association's annual meeting on the afternoon of Commencement day.

Albert Carnesale—*You were a towering source of strength for the Harvard community, serving as a professor and dean of the Kennedy School, fostering a new era of collegiality, curiosity, and cross-school collaboration as provost, and providing incisive intellectual leadership—to this University and to several United States presidents—on international affairs and the security of the nation.*

Frances Fergusson, Ph.D. '73, RI '75—*Your service to Harvard knows no bounds; as president of the Board of Overseers, as a leader on visiting committees, and as a thoughtful voice on governance, you have acted with energy, creativity, and resolve, advancing the University's devotion to learning and helping imagine its future.*

Peter Malkin '55, J.D. '58—*Inspiring all who care deeply for Harvard, you have been a true University citizen, serving as a trusted adviser to presidents and deans, championing public service as a core University ideal, and making it possible through your extraordinary generosity for new generations of outstanding young men and women to fulfill their dreams of a Harvard education.*

Malkin was surrounded by Harvard children and grandchildren—among the latter, no fewer than six who've been in the College in recent years (Louisa Malkin '09 and Matthew Blumenthal '08), are still enrolled (Malkins Eliza '13 and Emily '14), or had just "joined the fellowship of educated men and women" (Michael Blumenthal and Becky Malkin, both class of '11).

Cambridge Scholars

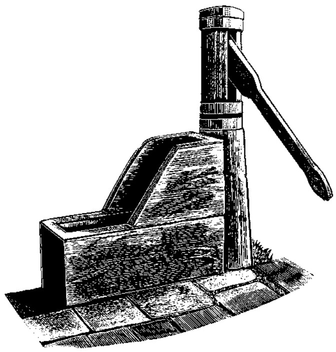
Four members of the class of 2011 have won Harvard Cambridge Scholarships to study at Cambridge University during the 2010-2011 academic year. English concentrator **Molly Fitzpatrick,** of Winthrop House and River Edge, New Jersey, will be the Lionel de Jersey Scholar at Emmanuel College; social studies concentrator **Jacob McNulty,** of Dunster House and Short Hills, New Jersey, will be the John Eliot Scholar at Jesus College; chemical and physical biology concentrator **James Pelletier,** of Adams House and Attleboro, Massachusetts, will be the Governor William Shirley Scholar at Pembroke College; and applied mathematics concentrator **Jackson Salovaara,** of Pforzheimer House and Bernardsville, New Jersey, will be the Charles Henry Fiske III Scholar at Trinity College.

Alumni Gifts

The University had received 77,000 gifts as of May 24, including those from reunioning classes, reported University Treasurer James F. Rothenberg '68, M.B.A. '70, during the HAA's annual meeting. The Harvard and Radcliffe classes of 1961 not only had the largest attendance of a fiftieth reunion in history, he announced, "they have also broken the all-time reunion gift record—for any Harvard class—by raising a remarkable $61 million." The class of 1986 achieved the "highest class turnout in twenty-fifth reunion history and exceeded their immediate-use funding target," he noted, and the class of 1981, celebrating their thirtieth reunion, "are well on their way to setting a new standard for immediate-use fundraising at Harvard." (No additional figures were announced.) Rothenberg added that the senior-gift campaign yielded an 82 percent participation rate and a record number of leadership gifts. "You are profoundly generous," he said, thanking alumni, students, parents, and friends of the University. "You have given of your time and resources. You have shared your creativity and energy for the enduring benefit of this remarkable institution, as it continues to expand the boundaries of knowledge, here and around the world."

Photographs by Stu Rosner

Guerrillas in the Yard



"Your wooden arm you hold outstretched to shake with passers-by."

BERNARD S. GLASSMAN '44, from Bethesda, Maryland, reports: "Sometime in 1942-43, I responded to a bulletin-board advertisement inviting students to join a new organization to be known as the Harvard Guerrilla Unit, whose objective was to be dropped behind the German lines to create havoc and mayhem. Unfortunately, this never came to pass. We graduated, dispersed, and our premature visions of derring-do and medals came to naught.

"In a 1942 issue of the *Crimson*," Glassman continues, "there appeared a photograph of the guerrilla unit receiving instruction in how to place a demolition charge in a sewer pipe. One of the 15 students pictured was my infamous classmate, Theodore Hall, who subsequently became a spy for Russia during World War II. At the conclusion of our training, we decided, as a demonstration of how much damage could be wreaked on a strategic facility by a small, well-trained group of guerrillas, we would 'blow up' a trio of radio-transmission towers near Boston. After alerting the *Crimson* to our intention, we breached the chain-link fence surrounding the towers one night, climbed up on the concrete base of each tower and taped small wooden simulated explosive charges to the legs of the towers, and quickly withdrew without being detected. The following morning, the *Crimson* ran the story on its front page, together with a picture of me wearing facial camouflage, on one of the three towers—my sole claim to fame during my years at Harvard."

TIES THAT BIND: A photograph in "The College Pump" in the March-April issue (page 56) showed 13 of the 15 (we believed) neckties once regularly worn by Harvard varsity athletes. Warren M. "Renny" Little '55, of Cambridge, curator (pro bono) of Harvard's Lee Family Hall of Athletic History, reports that Gunther Fritze '58, M.B.A. '62, of Chestnut Hill, Massachusetts, has donated his lightweight crew tie (the one in the photograph was borrowed from classmate Viggo C. Bertelsen Jr. '58, M.B.A. '63, of Seattle) and R. Gregg Stone '75, J.D. '79, of Newton, Massachusetts, has filled another gap in the collection by donating the heavyweight crew tie of his father, the late Robert G. Stone Jr. '45, LL.D. '03, former captain of a record-setting heavyweight crew and later Senior Fellow of the Harvard Corporation. This tie has half the stripes (each twice the width) of the lightweight crew tie.

John Thorndike '64, J.D. '68, of Greenwich, Connecticut, held that the tie furthest to the right in the photograph, described as the "minor sports" tie, is actually the squash tie, which we believed was missing from the collection. Upon further clarification from Eliot G. Gordon '47, of Teaneck, New Jersey, Thorndike's tie has been proved to be indeed a minor sports tie. Little is still looking for a squash tie.

Joseph S. Vera '50 and Alan Steinert Jr. '58, M.B.A. '62, AMP '83, both of Cambridge, revealed that there is a sixteenth tie in play. Vera wrote, "If a varsity team member lettered for three years or won a collegiate championship in a minor sport, he was awarded a major letter." Their ties have three stripes, as does the tie identified in the photograph as a lacrosse tie—but the red stripes are three-eighths of an inch, rather than one-eighth. This is the tie Thorndike was awarded. Little hopes one will be donated to complete the collection.

Thorndike added: "I attended Exeter for four years, and our headmaster, William G. Saltonstall '28, seldom wore neckwear that wasn't one of his football, hockey, or heavyweight crew ties!...I still religiously wear all three of my varsity sports ties—soccer, squash, and 'minor sports'—though this never fails to produce rolled eyeballs from our two daughters, Hilary '05 and Sarah '07, despite the fact that they have eight varsity squash letters and two co-captaincies between them." ~PRIMUS V

The U.S. Postal Service on June 16 issued a first-class stamp honoring botanist Asa Gray. A natural history professor, Gray also founded the Harvard Summer School 140 years ago. The stamp shows plants that he studied as well as the words *Shortia galacifolia* in his own hand. The story of his epic quest for that plant is told at http://arnoldia.arboretum.harvard.edu/pdf/articles/838.pdf.

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CAMBRIDGE 02138 *(continued from page 6)*

that the nature and causation of climate change in our era are a very long way from being understood and explained. This tentativeness on our part is what was once known as science. As for evolution, neither I nor any other conservative I know personally (or ever read) has any doubts about most aspects of it, in particular what it implies about the age of the earth. I realize some Christian fundamentalists do adhere to creationism. This is not the view of the Republican Party, Republicans in general, or the vast majority of other conservatives.

It is profoundly worrisome to me that the letter writers are so ill-informed about the views of conservatives. Perhaps this proves McKinney's point most dramatically. Harvard people simply do not know much about conservatives or conservative political ideas at all. Why?

Jonathan Burack '64
Stoughton, Wisc.

I am disappointed, but hardly surprised, to find so many letters castigating (all?) Republicans—apparently without irony—for their ignorance and bias. I hold a different stereotype of Republicans and the Tea Partiers: people who want much less (unnecessary) interference in business and personal lives, as well as much less spending. It's really not that complicated.

Scott G. Davis '66, A.M. '68
Prescott, Ariz.

Americans consistently deny holding bias attributed to social class, yet display those biases openly. Harvard harbors America's governing class, which self-servingly adopts the "liberal" or statist view of political organization that enforces their privileges. The opinions expressed by certain writers in the May-June issue about Republicans could very easily be those of segregationists concerning blacks in the 1940s, eugenicists concerning Eastern Europeans in the 1920s, Muslim Egyptians concerning Copts—or Cavaliers concerning Puritans when Harvard was founded.

Bruce P. Shields '61
Wolcott, Vt.

BEYOND BURLESQUE

"Yesterday's News" (March-April, page 45) noted under 1951, "Burlesque queen Sally Rand appears at the Freshman Smoker and lectures the class of 1954 on the evils of Communism." There's a lot more to this story.

The Smoker started off in Memorial Hall with good fellowship (i.e., a lot of beer-drinking), after which we trooped across to Sanders for the show, which featured fan dancer Sally Rand—not to perform (imagine the headlines!), but to do stand-up comedy. Rand had a different idea.

The Korean War had broken out three months before our class entered Harvard, so after a few ribald jokes she pulled a sheaf of papers from her low-cut gown and started reading the anti-Communist speech. We thought it was the build-up to another joke, but the punch line never came and the unruly crowd grew restless.

Then a guy threw a penny, and Rand shot back one of the best retorts I ever heard. "Boys," she said (itself a putdown), "there's only one animal I know who throws a cent." That drew a rousing ovation—and a lot more metal hurled her way. She gamely finished her speech, and the poor woman left the stage in tears.

Sensing a riot in the offing, the quick-thinking emcee hurriedly had a piano rolled out, and a bespectacled young math instructor sat down and started playing and singing his own catchy, satirical compositions. He was so good that soon everyone had forgotten Sally Rand. Tom Lehrer always acknowledged that this Freshman Smoker was his "first big gig."

Since we all took credit for launching his career, our twenty-fifth-reunion organizers tried to get him to come back to relive old times. To his credit, he declined, saying his humor was of a different time. But he is fated to be tied to the class of 1954. In this same issue that shows a cartoon of Sally Rand lecturing '54 freshmen, there is on page 32 a caricature of none other than Tom Lehrer—and next to him is our class's most illustrious graduate, John Updike.

F. Harvey Popell '54
Woodside, Calif.

ERRATUM: MARIJUANA MATTERS

Keith Dobbs writes: The profile of Dale Gieringer '68 ("Marijuana Advocate," The Classes, May-June, page 64F) attributes Proposition 19 to California assemblyman Tom Ammiano. The article should have said, "That discussion influenced…Tom Ammiano to introduce the first-ever legalization bill, Assembly Bill 390, in 2009."

Unwhole

Dysfunctional sink with body parts

Robert Gober was born in 1954 in Wallingford, Connecticut, and studied at Middlebury College. He now lives and works in New York City. Gober "is arguably the most important sculptor/artist of his generation," declares Mary Schneider Enriquez, Houghton associate curator of modern and contemporary art at the Harvard Art Museums. He created the work shown here, *Untitled*, dated 1999 to 2010, out of plaster, beeswax, human hair (on the legs but not visible in the photographs), cotton, leather, aluminum pull tabs, and enamel paint.

The sink is featured in a new installation in the Sackler Museum's first-floor galleries of recent pieces by Gober, Felix González-Torres, Doris Salcedo, and other contemporary artists, as well as works that haven't been shown for years by such modern masters as Josef Albers, Hans Arp, and Robert Rauschenberg.

One may listen on one's cellphone to a guided tour of the exhibition while exploring it. Schneider Enriquez provides the commentary on the sink, saying, in part, "In this work, Gober combines several of his interests and signature, almost iconic, elements: a large-scale sink and five feet/legs, apparently belonging to a small child. The feet and legs wind in a deeply creepy serpentine way in and out of the non-functional apertures, mimicking the missing plumbing….The sculpture presents us with an image so improbable, an object so peculiar, that it is as if the sculpture is functioning like a dream, in which objects are condensed one onto another such that they become impossible to separate and explain in any coherent narrative." Indeed, she says, "The unyielding way in which Gober plays with very strong themes of sexuality and the body—while at the same time making work that defies a hierarchical narrative—is one of his *oeuvre*'s great strengths."

~ C.R.