

Interpreting Photographs • Bioengineering • Harvard's Finances

# HARVARD

MAGAZINE

JANUARY-FEBRUARY 2009 • \$4.95

**HABEAS CORPUS** *in an*  
**AGE OF TERRORISM**





## Tuck **Business Bridge** Program

June 15–July 10 and

July 20–August 14, 2009

Hanover, N.H.

## Ready for the real world?

Is your son or daughter ready for the real world?  
Ready to get a job, compete, and succeed?

In just one month next summer, the Tuck Business Bridge Program® helps connect juniors and seniors to meaningful careers—all while developing personal strengths that will last a lifetime.

We deliver practical management skills—complemented by team valuation projects, résumé sessions, career panels, and interviews—to give students an advantage in recruiting and in everything they pursue. Courses are taught by the same top-ranked faculty who have made Tuck's MBA program a world leader.



**Tuck  
Business Bridge  
Program**

603-646-0273 • [tuck.biz.bridge@dartmouth.edu](mailto:tuck.biz.bridge@dartmouth.edu)  
[www.tuck.dartmouth.edu/bridge](http://www.tuck.dartmouth.edu/bridge)

# HARVARD

## MAGAZINE



JUSTIN IDE/HARVARD NEWS OFFICE

page 47

### DEPARTMENTS

- 2** Cambridge 02138  
*Communications from our readers*
- 9** Right Now  
*Reengineering retirement finances, fat that makes you fit, mind and health, detecting moldy books*
- 16A** New England Regional Section  
*Seasonal events, dating and love in the middle decades, and a Southern-accented grill*
- 17** Montage  
*Changing Earth seen from above, Michelangelo's architectural drawings, a novel of lost art—and loves, genuine barbecue, and China's "factory girls"*
- 72** The Alumni  
*Tackling gang violence on the streets of Providence, a victim of "Don't ask, don't tell," and more*
- 76** The College Pump  
*Redoing FDR's campus digs, Ralph Nader's record campaign talkathon*
- 88** Treasure  
*An exquisite Persian miniature, to keep winter's gloom at bay*
- 77** Crimson Classifieds

On the cover: Guards move a detainee at Guantánamo, May 1, 2007. Photograph by Brennan Linsley/AP Photo

page 69

### FEATURES

## 24 The War and the Writ

The battle to reconcile liberty and security in an age of terrorism turns on the ancient writ of habeas corpus  
by JONATHAN SHAW

## 32 Vita: Frances Perkins

Brief life of an ardent New Dealer: 1880-1965  
by ADAM S. COHEN

## 34 Life Sciences, Applied

Bioengineers pursue exciting research ranging from medical advances and new materials to novel forms of clean energy  
by COURTNEY HUMPHRIES

## 42 From Daguerreotype to Photoshop

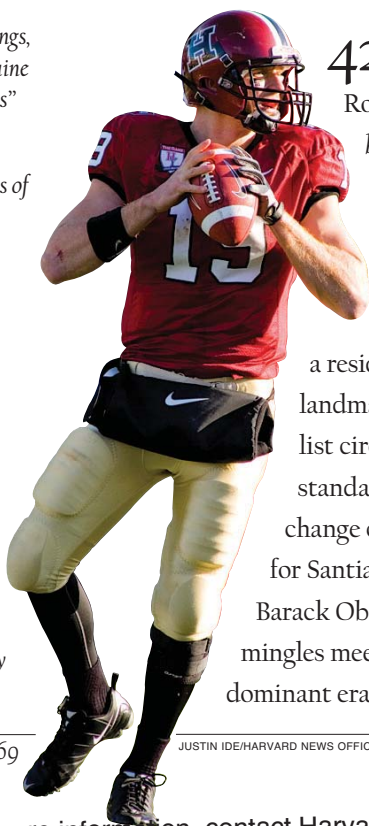
Robin Kelsey teases apart photographic fact and fiction  
by CRAIG LAMBERT

## 47 John Harvard's Journal

Al Gore underscores sustainability, the endowment's plummeting value undermines University finances, a resident quartet, educating College students for life, a landmark gift for the art museum, Widener Library's wish list circa 1934, honoring Edward M. Kennedy, setting higher standards for professional education and service, climate-change challenges, a more-Crimson Congress, inventive housing for Santiago's poor, social-science approaches to school reform, Barack Obama of Harvard Law School, the "Undergraduate" mingles meekly, buzzer-beating Quiz Bowl contestants, football's dominant era, and a wrap-up of fall sports



page 42



JUSTIN IDE/HARVARD NEWS OFFICE

[www.harvardmagazine.com](http://www.harvardmagazine.com)

# Cambridge 02138

*Football fixtures, inequality encore, Richard Wilbur*

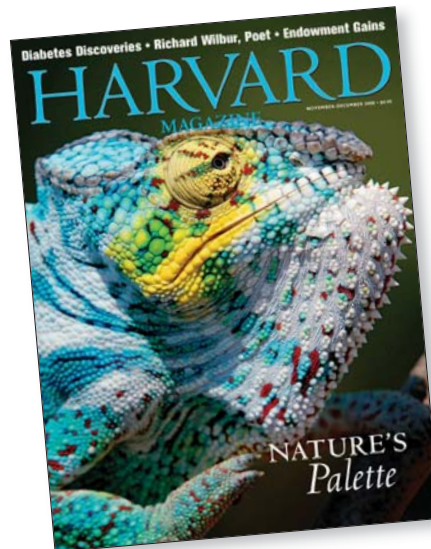
## COLORFUL CHAMELEON

THE EXOTIC panther chameleon whose picture graced the cover of the November-December 2008 *Harvard Magazine* proved a daring but effective covergirl: the photo captured my curiosity and inspired my interest in the corresponding article. In lieu of an actual visit to Cambridge, the rich photographic display from the *Language of Color* exhibition was a satisfying substitute. The exhibition demonstrates one of the most endearing facts about the natural world: vast and extravagant diversity across and within species is often functional as well as beautiful. Kudos on an inspiring and enjoyable feature story.

GEORGIA WALLEN, M.P. P. '98  
Washington, D.C.

## DIABETES DETAILS

IT WOULD HAVE been helpful if Elizabeth Gudrais's "Decoding Diabetes" (November-December, page 50) had, as an aside, mentioned some public-policy changes that could dramatically impact prevention. (1) Get high fructose corn syrup (HFCS) and other sugars out of processed foods and drinks (there is no justification for HFCS in a can of kidney beans, in spaghetti sauce, or in countless other products, where it is simply a cheap, seductive, and addictive filler). Do to HFCS what we did to trans fats. (2) Public transportation: in addition to multiple benefits as in energy conservation and air quality, re-engineering our urban society for efficient and pleasant public transit would produce a concomitant increase in physical activity that would begin to return most urban dwellers to the normal state of our biological origins. Sidewalks in the 'burbs would help. (3) Centers for



Disease Control and Prevention (CDC): why is the CDC so timid in confronting the corporate food nexus in defense of public health, particularly on risk factors for diabetes? This is as scandalous as the free rein of agribusiness and food makers in defining and promoting the American diet.

ROBERT PARK, A.M. '67, S.M. '81, HSPH '82  
Cincinnati, Ohio

## UNIQUELY HUMAN?

WHY DO HUMANS have such a burning need to prove that they are unique ("What Makes the Human Mind?" November-December, page 11)? Perhaps it is this need, in fact, that defines them as human.

GRETCHEN BECKER '63, G '67  
Halifax, Vt.

## ART ARCHIVES

I WAS DELIGHTED to see that James Cuno was reviewing *Old Masters, New World* ("Art as Chattel," November-December, page 31), but then less than delighted to

## HARVARD MAGAZINE

EDITOR: John S. Rosenberg  
SENIOR EDITOR: Jean Martin  
MANAGING EDITOR: Jonathan S. Shaw  
DEPUTY EDITOR: Craig Lambert  
ASSOCIATE EDITOR: Elizabeth Gudrais  
PRODUCTION AND NEW MEDIA  
MANAGER: Mark Felton  
ASSISTANT EDITOR: Nell Porter Brown  
STAFF WRITER: Paul Gleason  
ASSOCIATE WEB DEVELOPER: Blaise Freeman

ART DIRECTOR: Jennifer Carling  
ACTING ART DIRECTOR: Vera Leung

BERTA GREENWALD LEDECKY  
UNDERGRADUATE FELLOWS  
Christian Flow, Brittney Moraski  
EDITORIAL INTERN:  
Krysten A. Keches

CONTRIBUTING EDITORS  
John T. Bethell, John de Cuevas, Adam  
Goodheart, Jim Harrison, Christopher  
S. Johnson, Adam Kirsch, Colleen  
Lannon, Christopher Reed, Deborah  
Smulyan, Mark Steele

EDITORIAL AND BUSINESS OFFICE  
7 Ware Street,  
Cambridge, Mass. 02138-4037  
Tel. 617-495-5746; fax: 617-495-0324  
Website: [www.harvardmagazine.com](http://www.harvardmagazine.com)  
Reader services:  
617-495-5746 or 800-648-4499

HARVARD MAGAZINE INC.  
PRESIDENT: Henry Rosovsky, JF '57,  
Ph.D. '59, LL.D. '98. DIRECTORS: Leslie E.  
Greis '80, Alex S. Jones, NF '82,  
Bill Kovach, NF '89, Randolph C.  
Lindel '66, Tamara Elliott Rogers '74,  
Kay Kaufman Shelemay, A. Clayton  
Spencer, A.M. '82, Richard Tuck

*Harvard Magazine* (ISSN 0095-2427) is published bimonthly by Harvard Magazine Inc., a nonprofit corporation, 7 Ware Street, Cambridge, Mass. 02138-4037, phone 617-495-5746; fax 617-495-0324. The magazine is supported by reader contributions and subscriptions, advertising revenue, and a subvention from Harvard University. Its editorial content is the responsibility of the editors. Periodicals postage paid at Boston, Mass., and additional mailing offices. Postmaster: Send address changes to Circulation Department, Harvard Magazine, 7 Ware Street, Cambridge, Mass. 02138-4037. Subscription rate \$30 a year in U.S. and possessions, \$55 Canada and Mexico, \$75 other foreign. (Allow up to 10 weeks for first delivery.) Subscription orders and customer service inquiries should be sent to the Circulation Department, *Harvard Magazine*, 7 Ware Street, Cambridge, Mass. 02138-4037, or call 617-495-5746 or 800-648-4499, or e-mail [addresschanges@harvard.edu](mailto:addresschanges@harvard.edu). Single copies \$4.95, plus \$2.50 for postage and handling. MANUSCRIPT SUBMISSIONS are welcome, but we cannot assume responsibility for safekeeping. Include stamped, self-addressed envelope for manuscript return. Persons wishing to reprint any portion of *Harvard Magazine's* contents are required to write in advance for permission. Address inquiries to Catherine A. Chute, publisher, at the address given above. BPA  
COPYRIGHT © 2009 Harvard Magazine Inc.



# harvardmagazine.com

We've changed *Harvard Magazine's* website to serve you better. The redesigned homepage highlights content published first—or only—online. We bring you University news as it happens—critically important at times like this—as well as links to selected

articles about Harvard from other publications. And we've made it easier for you to connect with us and your classmates. Check out the new, more interactive **harvardmagazine.com** today. Tell us what you think of the new features and what else you'd like to see on the site: write to [feedback@harvardmag.com](mailto:feedback@harvardmag.com).

## Get the latest news.

No need to wait for the magazine's next issue to arrive in your mailbox. We post the latest Harvard news when it happens. Be sure to check back regularly!



Look for this icon throughout the magazine. It will alert you to additional online content that complements print articles.

Keep up with Harvard alumni, the University's faculty and administration, and higher education. We monitor diverse news sources and bring you a mix of the important, the interesting, and the downright quirky.

The screenshot shows the Harvard Magazine website homepage. At the top is a navigation bar with links: ONLINE ONLY, MAGAZINE, CLASSIFIEDS, CLASS NOTES, DONATE, CONTACT, and SEARCH. Below the navigation bar is a large banner for the current issue, "HARVARD MAGAZINE", featuring a photo of three people in military uniforms. The banner includes the text "HABEAS CORPUS man AGE OF TERRORISM" and a "VIEW CURRENT ISSUE" button. To the left of the banner is a "RECENTLY POSTED" section with several article teasers, each accompanied by a small HM icon. The teasers include: "Public Service Careers Get a Boost" (December 4, 2008), "Imagining the Past" (December 4, 2008), "Endowment Declines 22 Percent through October 31" (December 2, 2008), "Update: Harvard versus Yale" (November 24, 2008), "Bittersweet Victory" (November 20, 2008), "Law School Alumna Wins National Book Award" (November 20, 2008), "Landmark Newsstand May Close" (November 19, 2008), and "Puzzle 'John Harvard'" (November 1, 2008). To the right of the banner is a "Most Popular" section with a list of five articles and a "MORE" link. At the bottom of the page is a "Bioengineering in Motion" video player. A comment form is visible at the bottom right of the page.

## Use the new

navigation bar to place a classified ad, submit a class note, or make a donation online.

Click here to find the complete contents of the current issue.

Check here to see which articles are getting other readers' attention.

Find Web Extras—including videos, slide shows, and audio clips—here.

Post your comments at the end of each article page.

read his claim that the book “is not original research.” In fact, I couldn’t have written the narrative without extensive reliance on unpublished documents in archives at both museums and galleries—the Frick Collection and the Frick Art Reference Library, the Metropolitan Museum of Art, the National Gallery of Art, the Isabella Stewart Gardner Museum, the Harvard Center for Italian Renaissance Studies, Villa I Tatti (Florence), Knoedler & Co. (New York), and Colnaghi (London), to name only the most important.

Thanks to these primary sources, I discovered facts that set the record straight about many art-market transactions, including Henry Clay Frick’s purchases of Rembrandt’s 1658 *Self-Portrait* and Giovanni Bellini’s *St. Francis in the Desert*, purchases specifically cited by Cuno. In addition, my central contention that Frick’s brilliance as a collector had less to do with his taste than his character and his brilliance as a businessman depended upon my reading of the unpublished transatlantic letters and cables between dealers where they wrote frankly to each other and where Charles Carstairs described his best client as a “born trader, a close buyer & a d.... smart man, much more so in that way than Morgan.”

CYNTHIA SALTZMAN ’71  
Brooklyn

# ABOVE-ZERO IMPACT HOUSE

I WOULD BE more convinced of the zero impact of the household of that “Zero Impact House” (“Keeping It Green,” New England Regional Section, November-December, page 241) if they had not commissioned a three-car garage.

MARJORIE B. COHN, A.M. ’61  
Arlington, Mass.

# GAY HARVARD

PERHAPS MOST gays at Harvard in the 1960s and ’70s—and earlier—felt a “profound sense of loneliness and isolation” (“Coming Out at Harvard,” November-December, page 70) and perhaps most thought as Andrew Tobias did that there was no gay activity at Harvard (“Gay Like Me,” January-February 1998, page 50).

They were naive. In those decades and, in fact, in all decades, as William Wright’s *Harvard’s Secret Court* witnesses, there has been an active, albeit underground, homosexual life at Harvard. It bothers me that this side of homosexuality is not written about. What is stressed is the isolation and shame and guilt that homosexuals of these earlier decades felt. It bothers me that young gays today will get the impression that all gays of these earlier decades were unhappy, guilt-ridden closet cases.

I wish someone—besides me—would set the record straight. I was at Harvard

## Exemplary Contributors



STU ROSNER  
**Christopher Reed**

awarding each \$1,000 for their distinguished service to readers.

The McCord Writing Prize (named for David T.W. McCord ’21, A.M. ’22, L.H.D. ’56) recalls his lively prose and verse composed for this magazine and for the Harvard College Fund. Christopher (“Kit”) Reed qualified many times over during his 39 years of service here—but staff members are ineligible. Now that he has assumed senior status, but continues at the handle of The College Pump, on the Treasure page, and as an occasional feature writer, it is a delight to recognize Reed’s seemingly effortless prose.



**Naomi Shea**

Photographer Fred Field, of Portland, Maine, enlivens these pages with informative, humane portraits—for instance, of the scientists whose work was explored in “Decoding Diabetes” in the November-December 2008 issue.

Illustrator Naomi Shea, of Northampton, Massachusetts, sensitively mines historical materials and portraiture (photographs and works in other media) to create the photomontages that often accompany the magazine’s Vita features—most recently, her work on Albert Gallatin Browne Jr. in the November-December magazine. Congratulations, all.

With pleasure, the editors wish to recognize three contributors to *Harvard Magazine* during 2008 by



**Fred Field**

# HARVARD MAGAZINE

PUBLISHER: Catherine A. Chute

FINANCE AND ADMINISTRATIVE MANAGER  
Irina Kuskis

DIRECTOR OF CIRCULATION AND FUNDRAISING  
Felecia Carter

INTEGRATED MARKETING DIRECTOR  
Cara Ferragamo Murray

DIRECTOR OF ADVERTISING  
Robert D. Fitta

ADVERTISING ACCOUNT MANAGER  
Abigail A. Williamson

INTEGRATED MARKETING DESIGN MANAGER  
Jennifer Beaumont

CLASSIFIED ADVERTISING MANAGER  
Gretchen Bostrom

CIRCULATION AND FUNDRAISING  
MANAGER: Lucia Whalen

OFFICE MANAGER: Sylvie Papazian

GIFT PROCESSOR: Sarha J. Caraballo

BUSINESS INTERN: Lia Poin

IVY LEAGUE MAGAZINE NETWORK  
Tel. 617-496-7207

ASSOCIATE PUBLISHER, SALES  
Lawrence J. Brittan, Tel. 631-754-4264

NEW YORK ADVERTISING SALES  
Beth Bernstein, Tel. 908-654-5050  
Mary Anne MacLean, Tel. 631-367-1988

TRAVEL ADVERTISING SALES  
Northeast Media Inc., Tel. 203-255-8800

MIDWEST ADVERTISING SALES  
Nugent Media Group, Tel. 773-755-9051

DETROIT ADVERTISING SALES  
Heth Media  
Tel. 248-318-9489

SOUTHWEST ADVERTISING SALES  
Daniel Kellner, Tel. 972-529-9687

WEST COAST ADVERTISING SALES  
Virtus Media Sales, Tel. 310-478-3833

WEST COAST TRAVEL ADVERTISING SALES  
The Holleran Group, Tel. 707-935-9296

## BOARD OF INCORPORATORS

This magazine, at first called the *Harvard Bulletin*, was founded in 1898. Its Board of Incorporators was chartered in 1924 and remains active in the magazine’s governance. The membership is as follows: Stephen J. Bailey, AMP ’94; Jeffrey S. Behrens ’89; William I. Bennett ’62, M.D. ’69; John T. Bethell ’54; Peter K. Bol; Fox Butterfield ’61, A.M. ’64; Sewell Chan ’98; Jonathan S. Cohn ’91; Philip M. Cronin ’53, J.D. ’56; John de Cuevas ’52; Casimir de Rham ’46, J.D. ’49; James F. Dwinell III ’62; Anne Fadiman ’74; Benjamin M. Friedman ’66, Ph.D. ’71; Robert H. Giles, Nf ’66; Richard H. Gilman, M.B.A. ’83; Owen Gingerich, Ph.D. ’62; Adam K. Goodheart ’92; Max Hall, Nf ’50; Philip C. Haughey ’57; Brian R. Hecht ’92; Sarah Blaffer Hrdy ’68, Ph.D. ’75; Ellen Hume ’68; Alex S. Jones, Nf ’82; Bill Kovach, Nf ’89; Florence Ladd, BI ’72; Jennifer 8 Lee ’99; Anthony Lewis ’48, Nf ’57; Scott Malkin ’80, J.D./M.B.A. ’83; Lisa L. Martin, Ph.D. ’90; David McClintick ’62; John P. Reardon Jr. ’60; Christopher Reed; Harriet Ritvo ’68, Ph.D. ’75; Henry Rosovsky, Jf ’57, Ph.D. ’59, LL.D. ’98; Barbara Rudolph ’77; Robert N. Shapiro ’72, J.D. ’78; Theda Skocpol, Ph.D. ’75; Peter A. Spiers ’76; Scott H. Stossel ’91; William O. Taylor ’54; Sherry Turkle ’69, Ph.D. ’76; Robert H. Weiss ’54; Elizabeth Winship ’43; Jan Ziolkowski.



in the late '40s and found a very active underground homosexual life. We had gay cocktail parties and late-night orgies, cruised the many gay bars of Boston as well as the gay-friendly Club 100 and Casablanca in the Square. Some of us cruised the Lamont Library bathroom. We had affairs and breakups and did a lot of gossiping—just like today.

Yes, in the early '50s there was another witch-hunt similar to that of the '20s. Boys who were suspected of being homosexual were summoned by the dean and if found guilty of that horrendous activity were expelled. (A lover of mine, a brilliant freshman, was one.) But despite the hazards, we had a good time and I, as well as many of my friends, did not feel shame or guilt at being gay.

I want to let the young gays know that there have always been men who loved men and were well-adjusted to their difference, some of us rejoicing in it. We were ahead of our time in believing homosexuality was not evil and it was the world that was wrong, not us. I'm glad the world has caught up with us.

ARTHUR P. CLARRIDGE '49, Ed.M. '63  
Fort Lauderdale, Fla.

#### FOOTBALLERS' LUXE LOUNGE

IT WAS DISTURBING to read your report ("Living Large," November-December, page 79), which described the "opulently refurbished" football locker room at Dillon Field House, especially in these troubling financial times. Perhaps this makeover was planned when the University's endowment was at \$36.9 billion, but even so, it just doesn't seem like the right thing to do even if we could afford it. The locker room has "114 cherrywood lockers with crown moldings" and columns encased in "Shaker-design custom hardwood," along with "46-inch flat-panel TVs." This is a locker room, not a reception room where President Faust meets visiting dignitaries. Custom cherrywood for a locker room? Should the University be proud [of] this display of opulence? The timing is embarrassing, just as Faust announces we must be more prudent in our finances.

WILLIAM CAIN  
Harvard Employment Services and Operations  
Cambridge

I DO NOT UNDERSTAND why Harvard is requesting donations when they are

"I was interested in helping to make Harvard affordable for students because I received financial aid. But I also needed to be sure I had enough money for retirement."

K. DANIEL RIEW, M.D. AB '80

#### SAMPLE DEFERRED GIFT ANNUITY RATES

AGE	AGE PAYMENTS BEGIN	ANNUITY RATE
50	65	12.2%
55	65	9.6
55	70	12.8
60	65	7.5
60	70	10.1

#### SAMPLE IMMEDIATE GIFT ANNUITY RATES

AGE	ANNUITY RATE
65	5.9%
70	6.2
75	6.9
80	8.0
85	9.0

There are many ways to structure a Harvard Gift Annuity—contact us to see if one can meet your charitable and financial objectives.

#### For more information, please contact:

Anne McClintock, Alasdair Halliday,  
John Christel, Ericka Webb, Lisa DeBenedictis

Phone 800-446-1277

Fax 617-495-8130

Email [pgo@harvard.edu](mailto:pgo@harvard.edu)

Web [post.harvard.edu/pgo](http://post.harvard.edu/pgo)



#### University Planned Giving

Harvard University | 124 Mount Auburn Street | Cambridge, MA | 02138-5795

# College prep at Harvard.

In this selective summer program, high school students can:

**Earn undergraduate credit** in classes with college students.

**Meet** students from around the world.

**Prepare for college** through college visits, workshops, and admissions counseling.



**HARVARD SUMMER SCHOOL**  
Secondary School Program  
[www.ssp.harvard.edu](http://www.ssp.harvard.edu)



## LETTERS

spending money on plush locker-room facilities. Too late, of course, to do anything about it. Still, it rankles, and shows a poor sense of judgment as to what is important. I'd rather have seen an upgrade to some community-outreach program, or some initiative to help the city of Cambridge.

Griffin J. Winthrop Jr. '58  
Captain, Harvard Swim Team 1957-58  
Deltona, Fla.

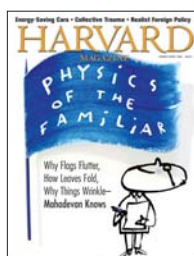
## INEQUALITY, ENCORE

RE MARGUERITE GERSTELL'S letter (November-December, page 6, on "The Economic Agenda," September-October, page 27) faulting Lawrence H. Summers's view that healthcare is a "moral imperative," I suspect that many Harvard alums share her conclusion that "We need a reasonably healthy workforce to compete in the world. We already have that."

How cold. How impersonal. Our "reasonably healthy workforce" means that many millions of families are uninsured or underinsured. It means that most of the rest of us are paying more, yet losing our lives younger, than we need to. It means that our spouses, children, and grandchildren are deprived years too soon of our companionship, love, and wisdom. Call these observations "bleeding heart" if you will. "Bleeding heart" is what people who don't care call people who do.

Other nations' experiences teach us that Americans will live longer at less cost if we go to a single-payer system—say, by extending Medicare to all and by reducing the role of the largely superfluous though politically powerful health-insurance companies to simply providing Medicare-type supplements. And we would take a sensible step toward curing the pervasive American sickness of placing private profits ahead of people.

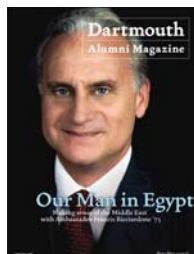
Malcolm Bell '53, LL.B. '58  
Weston, Vt.



**Nine magazines delivering more than one million influential readers.**

**Isn't it time to educate them about your brand?**

To advertise, call Larry Brittan, Associate Publisher at 631-754-4264.



**Ivy League Magazine Network**  
[www.ivymags.com](http://www.ivymags.com)

## 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](mailto:yourturn@harvard.edu), use our website, [www.harvardmagazine.com](http://www.harvardmagazine.com), or fax us at 617-495-0324. Letters may be edited to fit the available space.





# IMMERSE YOURSELF — TRAVEL WITH THE — HARVARD ALUMNI ASSOCIATION

## BOOK YOUR NEXT TRIP

CALL 800.422.1636 OR EMAIL [HAATRAVELS@HARVARD.EDU](mailto:HAATRAVELS@HARVARD.EDU)  
FOR DETAILED PROGRAM INFORMATION VISIT [HTTP://POST.HARVARD.EDU/TRAVEL](http://POST.HARVARD.EDU/TRAVEL)

### A SAMPLING OF 2009 TRIPS



#### PRAGUE, THE ELBE RIVER AND BERLIN ON *MV CHOPIN*

MAY 27 - JUNE 9, 2009

With **Eckehard Simon**, Victor S. Thomas Research Professor of Germanic Languages

From Prague, home to some of the finest medieval architecture in Europe, cruise along the River Elbe through enchanting landscapes of hillside villages, cliff top castles, and verdant woodlands. Tour the imposing medieval fortifications of Konigstein Castle; marvel at the Baroque splendors of Dresden and walk in the footsteps of Martin Luther along the narrow streets of historic Wittenberg. The trip culminates with three days in Berlin.



#### HISTORIC COUNTRIES OF THE BALTIC ON *ISLAND SKY*

JUN 20 - JUL 3, 2009

With **Julie Buckler**, Professor of Slavic Languages and Literatures

Experience the Baltic lands' rich traditions and dynamic vitality from the picturesque ports of Scandinavia to the medieval quarters of Riga and the resplendent palaces and canals of a St. Petersburg reborn. Exclusive elements include a specially arranged concert at Helsinki's prestigious Sibelius Academy, a meeting with Nobel Peace Prize Laureate and Solidarity founder Lech Walesa, and three days in magnificent St. Petersburg, renowned for its exquisite artistic and architectural treasures.



#### CYCLING THROUGH TUSCANY

JUN 11 - 18, 2009

With **Lino Pertile**, Professor of Romance Languages and Literatures

After a day in Florence, embark from San Donato and admire the stunning panorama as you zigzag through olive groves and past stone villas along the lovely Sette Ponti. Winding through the sundrenched Pratomagno range, pass through tiny towns on a road lined with fig trees, vegetable gardens, and vineyards. The flatlands of La Val Di Chiana ease the way to Cortona. Cross the border to Umbria and the blue waters of Lago Trasimeno. The pacing is relaxed and the terrain is gently rolling.



#### MACHU PICCHU EXPLORER: FEATURING THE INCA TRAIL

AUG 8 - 16, 2009

With **Marc Zender**, Lecturer on Anthropology

Visit Machu Picchu by 4-day trek on the Inca Trail or by train. Immerse yourself in the myths, legends, and history of the Incas starting in Cusco, the southern capital of the Inca Empire. Explore the Sacred Valley, lined with picturesque Andean markets, impressive churches and remarkable Inca ruins. Enjoy the spectacular scenery en route to the high Andean village of Chinchero and visit the little-known high Andean village community of Patakancha. Finish your journey at Machu Picchu, "the Lost City of the Incas."



#### ISTANBUL TO BUDAPEST BY PRIVATE TRAIN

JUN 14 - 24, 2009

With **Kelly O'Neill**, Assistant Professor of History

After an exploration of spirited Istanbul, board the elegant *Danube Express* train for a journey across a less-frequented part of Europe. Breathe in the fragrance of the Valley of the Roses in Kazanluk; investigate the Dracula legend in Romania's Transylvanian towns; and visit Eger, a Hungarian city renowned for its beautifully preserved architecture and its "bull's blood" wine. Disembark in Budapest, Hungary's capital on the Danube, where stately Art Nouveau buildings from the early 1900s overlook lively shopping hotspots.

## 2009 ADDITIONAL TRIPS

**JOURNEY THROUGH  
THE TRANS-CAUCASUS**  
MAY 20 - JUN 4, 2009  
CAROL SAIVETZ

**ISLANDS OF ITALY  
& CINQUE TERRE  
ON *CALLISTO***  
MAY 26 - JUN 4, 2009  
HARVEY COX &  
NINA TUMARKIN

**TREASURES OF SPAIN,  
FRANCE & ENGLAND  
ON *SEA CLOUD II***  
MAY 26 - JUN 9, 2009  
CHARLES MAIER

**VILLAGE LIFE:  
DORDOGNE**  
JUN 4 - 12, 2009  
DANIEL E. LIEBERMAN

**VILLAGE LIFE:  
ENGLAND'S COTSWOLDS**  
JUN 14 - 22, 2009  
MICHAEL SHINAGEL

**WIMBLEDON**  
JUN 20 - 23, 2009  
**THE GREAT LAKES:  
A VOYAGE THROUGH  
NORTH AMERICA'S  
INLAND SEA ON  
*CLELIA II***  
JUL 11 - 18, 2009

**CHINA GRAND TOUR  
WITH VIEWING OF  
SOLAR ECLIPSE**  
JUL 11 - 25, 2009

**JOURNEY THROUGH  
THE BLACK SEA  
ON *CORINTHIAN II***  
AUG 14 - 24, 2009  
SERHII PLOKHII

**BEYOND RAPA NUI:  
EASTER ISLAND  
TO TAHITI ON  
*CLIPPER ODYSSEY***  
OCT 1 - 20, 2009

**CAMBODIA AND  
VIETNAM ON  
*MEKONG PANDAW***  
OCT 17 - 31, 2009  
**BARCELONA  
ARCHITECTURE &  
URBAN DESIGN**  
OCT 16 - 22, 2009

**ANTARCTICA DISCOVERY  
ON *CORINTHIAN II***  
DEC 10 - 22, 2009



**Healthcare  
is ready for change.**

**Prepare to lead.**

Yale's MBA for Executives:  
Leadership in Healthcare  
offers:

- Academic rigor
- Executive format
- Diverse student body

Learn more at  
[mba.yale.edu/mba-e](http://mba.yale.edu/mba-e)

 **YALE MBA FOR EXECUTIVES  
LEADERSHIP IN HEALTHCARE**



collegiate  
cashmere  
by lilygood

**SHOW YOUR  
TRUE COLORS!**



BABY SET  
BLANKET  
GLOVES



HAT

SCARF

SOCKS

SWEATER

&

MORE...



Wrap yourself in  
school tradition.

Visit our store online at  
[WWW.COLLEGIATECASHMERE.COM](http://WWW.COLLEGIATECASHMERE.COM)  
or call 1.800.226.2750

**5th Annual  
Attention Juniors  
Class of 2010  
Enroll Now...  
College Application  
Boot Camp™**

**Intensive 4-day Camp  
August 2009**

**Join us in NYC or Boston**

Complete your college applications  
with leading admission pros:

**Dr. Michele Hernandez,**  
former Assistant Director of Admissions  
at Dartmouth College  
and author of  
*A is for Admission*  
and

**Mimi Doe,**  
parenting guru and author of  
*Busy but Balanced*

**•Last 4 years were sellouts  
•Call now to reserve your space**



**Application Boot Camp™**

[HernandezCollegeConsulting.com](http://HernandezCollegeConsulting.com)

1-877-659-4202

Email: [Editor@ApplicationBootCamp.com](mailto:Editor@ApplicationBootCamp.com)

**LETTERS**

STEFAN SCHREIER's anecdote about Lord Rothschild (Letters, November-December, page 8, on "Unequal America," July-August, page 22) was meant to deflate egalitarianism. But it merely illustrated Rothschild's lack of moral imagination. Rothschild assumed that the man who "berated him for having an unfair share of the world's wealth" was (like Rothschild) only out for himself. Suppose Rothschild had instead responded generously and intelligently: "You're right. But since even I can't rescue the whole human race from needless misery, I will rescue 10,000 struggling fellow citizens, who have just as much right to a modicum of happiness as I do."

If Rothschild were a U.S. citizen in 2009, his net worth would be, at a conservative estimate, \$10 billion. Let us leave him \$9 billion, so as not to scandalize anti-egalitarians, and redistribute only a paltry 10 percent of his wealth. That would put \$100,000 into the hands of each of 10,000 Americans who are about to lose their houses or jobs or to declare bankruptcy as a result of unpayable medical bills or who are unable to retire because their pension fund or medical coverage has evaporated.

Does Mr. Schreier—does any *Harvard Magazine* reader—really suppose that the extreme economic inequality of contemporary America is unavoidable or irredeemable?

GEORGE SCIALABBA '69, L '72  
Cambridge

**RICHARD WILBUR'S WORLD**

THANKS for Craig Lambert's thoughtful account of Richard Wilbur ("Poetic Patriarch," November-December, page 36). We have fond memories of meeting the Wilburs with our parents, Anya and Peter Viereck (S.B. '37, Ph.D. '42), and appreciated Wilbur's remarkable reading of his favorite Viereck poems and translations on the occasion of our father's Legacy-Memorial Service at Mount Holyoke College in November 2006.

In 1961, as part of an extraordinary cultural thaw during the Kennedy era, Wilbur and Viereck, both former GIs and Pulitzer Prize-winning writers, were appointed by the State Department as the first Americans to represent their country in the then-USSR as part of a cultural exchange program, hosted as guests of the Soviet Writers (please turn to page 85)



# Right Now

The expanding Harvard universe

UNDER THE HOOD

## Retirement Engine Rebuilt

**J**UST ABOUT everybody needs to plan for retirement. Unfortunately, mixing domestic and international stocks with traditional and inflation-protected bonds and hoping they deliver the right payoff decades in the future is a daunting task, even for professionals. And what's really absurd, says Robert Merton, McArthur University Professor at Harvard Business School and 1997 Nobel laureate in economics, is that most self-directed retirement plans expect everyone from professors to doctors to assembly-line workers to do that mixing themselves. "Imagine being wheeled in for surgery," he says. "I'm kind of going under from the anesthetic, when suddenly my hand-picked surgeon says, 'Mr. Merton, do you want 17 or 12 sutures?' But that's what they're asking!"

Throughout the past decade, Merton explains, companies in general have moved from plans with defined benefits (pensions) to plans with defined contributions, such as 401(k)s. Pension

plans guaranteed a certain standard of living but, Merton says, they have proved far more costly to employers than expected. Defined-contribution plans are more focused on the *means* of making money than on the *end* of having enough, and transfer the risk of accumulating sufficient savings to the prospective retiree. In future retirement plans, Merton believes, the buyers will set a goal and, aside from a few important questions (how much will you save each month?), it will be the *provider's* job to reach it.

Defined-benefit plans, such as corporate pensions, normally paid workers a percentage of the salary they made in their final years on the job. Instead of offering an extra dollar an hour during wage negotiations, for instance, employers would offer an extra 50 cents an hour plus 50 cents in future benefits. The arrangement pleased management and labor alike. Workers had a reliable retire-

ment plan. Employers didn't need to put higher salaries against their yearly earnings.

But companies underestimated the amount they needed to invest to pay the pensions, explains Merton, because they failed to factor in risk—which would have made the plans far more expensive. For example, if stocks have an expected annual return of 10 percent and bonds have an annual return of 4 percent, then ordinarily it will take less money initially invested in stocks to reach the goal. But companies invested as if the market could go only one way, and, he notes, "Expected is not necessarily what you get." Merton, who rebuilt his first car at age 15 and later raced hot rods in upstate New York, says employers were unwittingly offering Bentleys for the price of Camrys.

The market downturn between 2000 and 2002 quickly disabused companies of the notion that they could continue paying for Bentleys. Hastening a shift already under way, many firms capped pension plans and didn't offer them to younger workers. Almost by default, says Merton, defined-contribution plans—in which employers may match workers' contributions to investment funds—became the norm.

The employer-provided 401(k) used to be an afterthought in retirement planning—a way for peo-

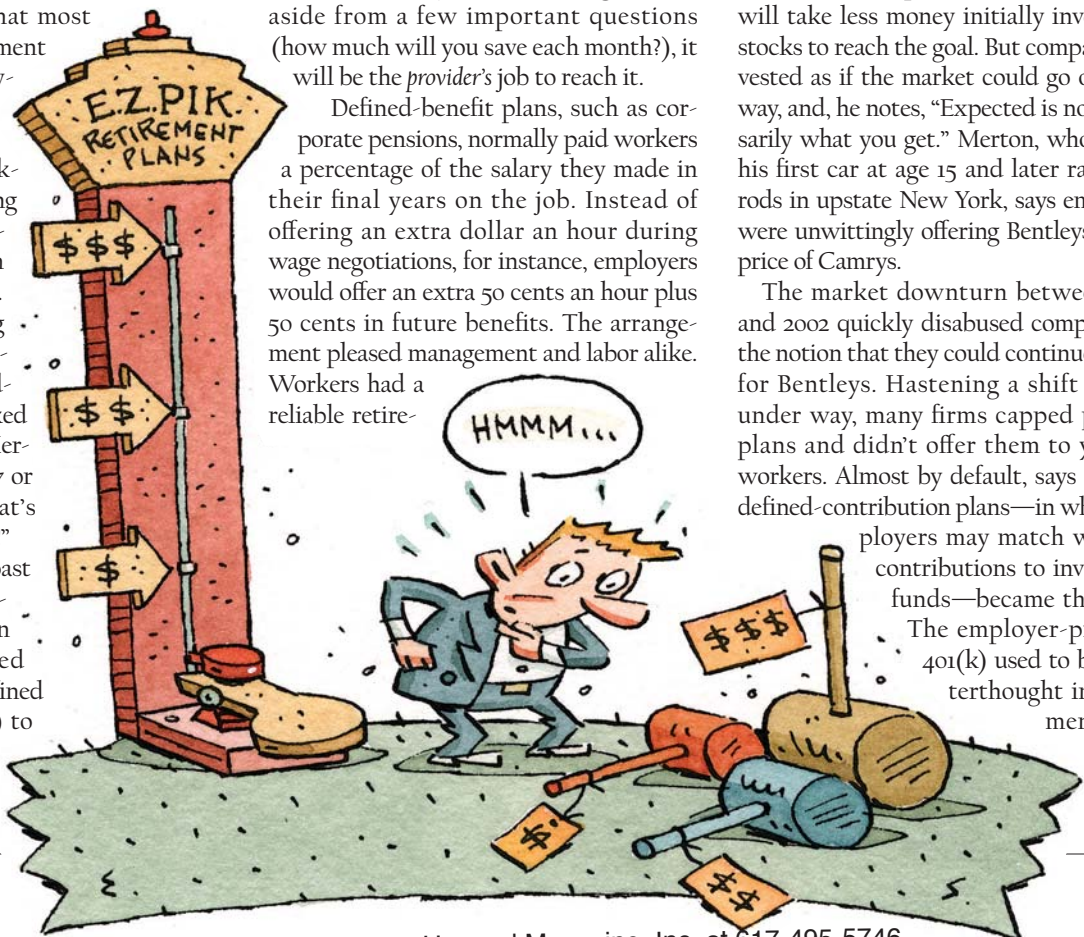


ILLUSTRATION BY ELWOOD SMITH

ple to dip a toe into the market. “What was originally designed to be supplemental,” he says, “is becoming core.”

The trouble with asking employees to pick among investment categories within defined-contribution plans, says Merton, is that the choices aren’t meaningful. What you want to know is how much you should be saving, how much you’ll be living on if you do, and whether or not

Merton’s solution, SmartNest (already installed at a European electronics firm), gives plan-holders a few simple choices, available as a computer program. The program asks users for both minimum and ideal retirement incomes (a floor and a ceiling). Users also tell the program how much they would be willing to save each month and their preferred retirement age. Based on these inputs, the program then

and short-term bonds. In order to attain the ceiling, the plan relies on equity market returns. Users can increase their odds of attaining their ideal income, but doing so means saving more each month. “Now that’s a meaningful choice for you,” says Merton. The final goal is to have enough money in the account at retirement to buy an inflation-adjusted annuity plan and thus enjoy a steady yearly income thereafter.

Merton doesn’t mean to say that people shouldn’t immerse themselves in all the minutiae of retirement planning, if that’s what they happen to prefer. If you are the kind of person who likes building cars and hi-fi sets, he says, then by all means, go ahead. But “most people hate doing financial planning,” he notes. “It’s like going to the dentist without Novocain.”

—PAUL GLEASON

ROBERT MERTON E-MAIL ADDRESS:  
[rmerton@hbs.edu](mailto:rmerton@hbs.edu)

## “Most people hate doing financial planning. It’s like going to the dentist without Novocain.”

you’ll be able to retire early. Instead, your 401(k) asks you whether you’d like more mid-cap stocks. What, he asks, does *that* have to do with the goal of “having the standard of living in retirement that I want”? Car buyers, he points out, don’t need to know the number of cubic centimeters in their engines in order to drive off the lot.

calculates the odds of reaching the upper goal. The investment strategy remains under the hood, where Merton or other financial mechanics can give it periodic tune-ups.

The plan actually uses two different strategies, one for the floor and one for the ceiling. To build the floor, Merton’s plan invests in a conservative mix of long-

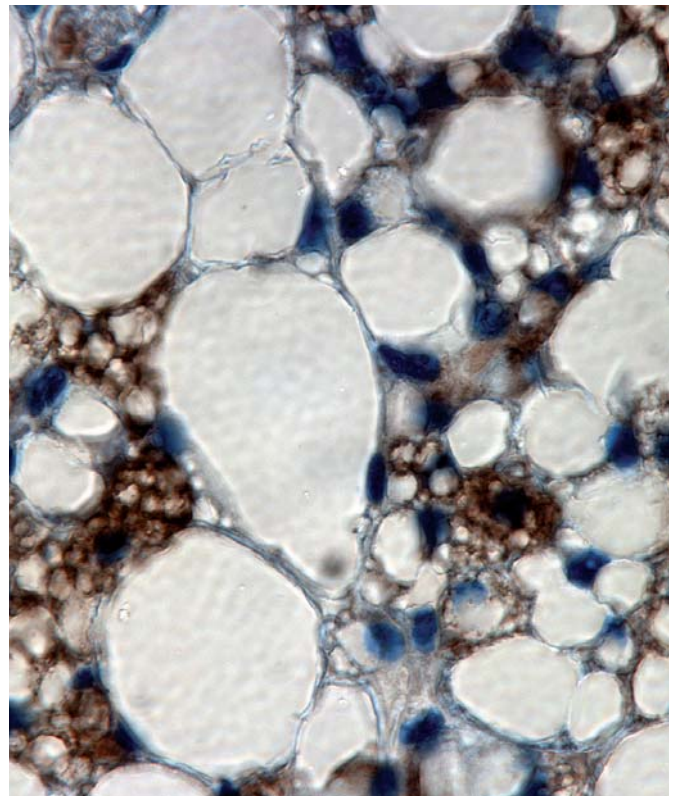
### OXIDATIVE OXYMORON

## The Fit Fat

**W**HEN it comes to our food, we are used to thinking about “good fat” and “bad fat.” Unsaturated fat (found in such foods as salmon, nuts, and olive oil) promotes health and keeps cholesterol in check; saturated fat (meat, eggs, dairy) is less healthy and should be consumed with caution; and trans fat (partially hydrogenated oils, commonly found in baked goods and restaurant frying oil, but now banned in some places) is practically poison, clogging the arteries and contributing to hypertension and heart disease.

But the body, too, has good fat and bad fat—and the difference is not one of quantity, but of kind. When most of us think of fat tissue, what we really have in mind is *white* fat, which stores excess calories and tends to accumulate with too much food and too little physical activity. It’s true that we need *some* white fat to keep us warm and to provide energy during extended periods without food, but above this minimal amount, the less we have, the better.

Brown fat, on the other hand, is “metabolically hyperactive,” says Korsmeyer professor of cell biology and medicine Bruce Spiegelman. Instead of socking away stored energy for later use, brown-fat cells *burn* energy. With one of the highest rates of oxidative metabolism of any kind of cell in the body, and a very high density of mitochondria, “brown fat is the superathlete of mitochondrial biology,” says Spiegelman, who studies the wondrous tissue type. It is the sheer density of mitochondria—the cellular powerhouses that convert glucose (blood sugar) into a form of chemical energy that the body can



This image shows small brown-fat cells—which burn energy as heat—interspersed among larger white-fat cells, which store energy. The former are stained brown here; their natural color, which results from the density of mitochondria, would not be visible in this thin cross-section of tissue. (The blue staining marks cell nuclei.)



# Scholarships

## SUPPORTING THE FUTURE OF MEDICINE AND HEALTH CARE



By making an outright, life income, or estate gift to Harvard Medical School, you can help children like Emmett pursue a medical degree when they grow up. In this time of economic uncertainty, your gift can also provide you with annual income, significant tax benefits, and the satisfaction of knowing that you have helped those who will shape the future of medicine, for the better, in our nation and the world.

**FOR A COMPLIMENTARY GUIDE  
TO LIFE INCOME GIFTS, OR  
FOR MORE INFORMATION,  
PLEASE CONTACT:**

**Mary Moran Perry  
Office of Gift Planning  
Harvard Medical School  
401 Park Drive, Suite 22  
Boston, MA 02215**

**800-922-1782  
617-384-8449  
mperry@hms.harvard.edu**



G I F T P L A N N I N G

use—that gives these cells their brown color.

Infants have a significant amount of brown fat; it generates body heat. The medical community had long recognized this thermogenic function and wished for a way to harness it, in adults, to burn off excess calories as heat—but that was considered a pipe dream, because adult humans were thought to have a negligible amount of brown fat. An accidental discovery proved otherwise.

That discovery came with the widespread use of PET scanning, a medical-imaging technique that aids the diagnosis of tumors by mapping glucose uptake in the body. Scan results show glucose uptake in the heart and brain, and in tumors, which require massive amounts of this fuel to survive and grow. But the scans also reveal multiple small glucose-uptake hotspots throughout the upper body: on top of the clavicle, in the sides of the neck, next to the vertebrae, just above the kidneys. These spots are symmetrically dis-

**“If you could take out precursor cells, engineer them so they become brown fat, and put them back, you could presumably affect whole-body metabolic rate.”**

tributed; tumors would not be. Some scientists guessed that these mystery glucose users were brown fat deposits, a hypothesis they confirmed with experiments in humans and in mice.

It is not yet known how much variation exists among humans in the amount of brown fat we carry, and whether this has metabolic implications; in mice, at least, strains with more brown fat are resistant to diet-induced obesity.

Spiegelman's work has focused on finding ways to encourage the growth of brown fat, and even convert other types of tissue into brown fat, and thus ramp up metabolism. Such a discovery would be a tremendous breakthrough in the

treatment and prevention of obesity, which poses a health hazard in itself and contributes to many other ailments, including cardiovascular disease, arthritis, and diabetes (see “Decoding Diabetes,” November-December 2008, page 50).

In 1998, Spiegelman and assistant professor of cell biology Pere Puigserver found a protein that, when expressed in white-fat cells, made them behave more like brown-fat cells: it caused their mitochondria to “leak” energy as heat. Then, in 2007, Spiegelman and postdoctoral fellow Patrick Seale found a gene that regulated

not just this mitochondrial function, but many other attributes of brown fat. Blocking expression of this gene, PRDM16, effectively converted brown fat cells into white.

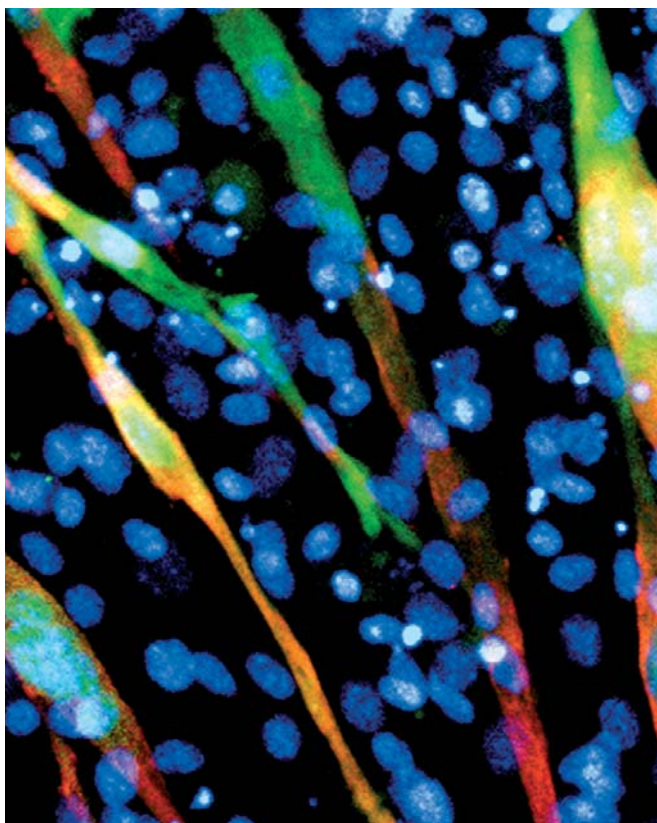
All the while, everyone assumed that

both types of fat cell came from a common parent, a preadipocyte, or fat-cell precursor. Last August, Spiegelman and Seale published a paper that rewrote the story. Aiming to shore up the evidence for their earlier findings, they went one step higher up the ladder and knocked out PRDM16 from mouse brown-fat precursor cells (as opposed to their earlier work with cell cultures), expecting these cells, too, to become functionally like white fat. “Instead,” says Spiegelman, “they turned into muscle in the dish. It was really a shock.” The researchers also showed that the relationship holds in the opposite direction: expressing PRDM16 in myocytes, or muscle precursor cells, caused them to turn into brown fat.

The finding has implications beyond filling in brown fat's family tree. “If you could take out precursor cells, engineer them so they become brown fat, and put them back,” says Spiegelman, “you could presumably affect whole-body metabolic rate.” His lab is working on this already, removing cells from mice, adding PRDM16, and reinserting them. (Because the cells are autologous, this method circumvents a major obstacle to transplantation—rejection.) And his students, in collaboration with researchers at the Broad Institute of Harvard and MIT, are screening all drugs already approved for other uses by the Food and Drug Administration to see if any of them act to increase PRDM16 expression and amplify its function.

This magic pill wouldn't be a cure-all—exercise and a nutritious diet promote health and prevent disease in ways far beyond their effect on body weight. But Spiegelman can envision a future in which a drug that acts on brown fat is used widely, in conjunction with other strategies, to treat obesity. Brown fat was first described by the Swiss naturalist Konrad Gessner in 1551 as “neither fat, nor flesh—but something in between.” He was on the right track, but it took scientists 450 years to prove it.

—ELIZABETH GUDRAIS



**Above, a stained culture of brown-fat cells with PRDM16 expression suppressed. Muscle fibers appear as long, stringy, reddish bodies; the green color comes from the virus introduced to suppress PRDM16; and the blue marks cell nuclei. The muscle fibers' presence was a surprise; it indicated that brown fat is developmentally related to muscle.**

BRUCE SPIEGELMAN E-MAIL ADDRESS:  
[bruce\\_spiegelman@dfci.harvard.edu](mailto:bruce_spiegelman@dfci.harvard.edu)



## MINDFULNESS

# Does Thinking Make It So?

IN A WORLD that prizes medical science and blames illness on factors such as genes, viruses, bacteria, or poor diet, certain perplexing cases stand out. Consider babies in orphanages who have had all their physical needs met, yet fail to develop because they lack a strong connection to another person. Or the roughly 200 women in Cambodia with perfectly healthy eyes who became blind after they were forced to watch as loved ones were tortured and killed. Or Mr. Wright, a man whose tumors “melted like snowballs on a hot stove” when he was given Krebiozen, an experimental drug that he believed would cure his cancer, but was later declared to be worthless by the American Medical Association.

These cases underscore the powerful idea that the mind matters in sickness and health. Judging by the millions of Americans who use mind-body modalities such as yoga, meditation, qi gong, and massage to fight diseases like cancer, it's an idea that many accept.

But why do we believe in the mind-body link in the first place? Anne Harrington, professor of the history of science and chair of the department, says we're only partially convinced by laboratory studies revealing which of these therapies do and don't work. “Science is only part of what has created mind-body medicine and sustains it today,” she notes. In her recent history, *The Cure Within*, she argues that we're also persuaded by sto-

ries, especially a key set of narratives that humans have told about the mind and body through history. These stories, she

beyond our capacity.” At the center of that narrative she places physical and emotional stress, a relatively new concept that was formulated near the end of the 1940s by the Czech bio-

chemist Hans Selye, who borrowed the term from metallurgy. The concept subsequently gained traction as psychiatrists studied traumatized soldiers and, later, overworked executives, especially those with Type A personalities (thought to be prone to heart attacks). During the decades since then, Harrington says that concern about stress and the illnesses it may trigger have escalated.

But these laments centered on modern life have also yielded some hopeful mind-body stories: “efforts to narrate our way out of the darkness,” in Har-

rington's words. For instance, one type of narrative maintains that we can stay healthy or even heal ourselves through strong relationships. Another set of stories finds promise in the healing practices of Eastern cultures, an interest that burgeoned with the Beatles' trip to India to seek the spiritual guidance of the Maharishi Mahesh Yogi; was sustained by the late 1970s discovery—by Mind/Body Medical Institute associate professor of medicine Herbert Benson—of the meditation-derived “relaxation response” to counter stress; and continues to be the subject of Harvard research: for example, scientists are studying MRI scans of the brains of meditating Tibetan monks.

Harrington says that it's useful to con-



Stories help us make sense of complicated experiences like illness and suffering.

says, help us make sense of complicated experiences like illness and suffering.

For example, the cultural power of some mind-body ideas becomes clear when you trace them back to their roots in religion. Groups such as the Christian Scientists drew from the New Testament the message that strong faith can yield miracle cures, and Harrington shows how this led eventually to self-help bestsellers about the therapeutic effects of positive thinking.

In the secular arena, she continues, post-World War II anxieties produced stories about the ways our minds leave us vulnerable to illness, including “the idea that we live in a world that we weren't made to endure, that taxes our energies

## Vacation Homes At America's #1 Ski Resort Start At \$2 million.

Ours Start At  
\$379,000

**S**teps from the lifts of Deer Valley Resort, Utah—ranked #1 by *SKI* magazine readers (Oct. '08)—*The Residences at The Chateaux* offer peak location and convenience. Our residence club blends the benefits of owning a 2,200- or 2,800-sq-ft vacation home with the services and amenities of a first-class hotel. Your ownership provides up to eight weeks, or more, of stays every year—ample for ski getaways and summer visits.

To discover more,  
call 866.658.8555

[www.ChateauxResidences.com](http://www.ChateauxResidences.com)



### RIGHT NOW

sider *when* we find these mind-body stories most convincing. “It’s often when we’re let down by the mainstream medical narrative of Western society”—which values concrete solutions and statistics. Such an approach fails to help chronically ill patients grapple with questions like “Why did this happen to me?” Mainstream medicine, Harrington continues, “often will answer that there is no reason, or that in effect the reason is dumb bad luck. Mind-body medicine is a

tempting alternative for patients in such moments because it is all about connecting the ‘why, when, and what now’ of an illness back to a person’s biography.” Mind-body narratives give us a vocabulary for complex experiences like discontent and hope, she adds. “Stories can do things that science can’t.”

—ERIN O'DONNELL

ANNE HARRINGTON E-MAIL ADDRESS:

[aharring@fas.harvard.edu](mailto:aharring@fas.harvard.edu)

### MOLD MATTERS

## R<sub>x</sub> for the Books

**A**MUSTY OLD BOOK may have more than an unpleasant odor—it may have a disease. So collections conservator Ethel Hellman asks colleagues in the circulation and acquisition departments of Harvard libraries to keep their eyes (and noses) open for books with discoloration or unusual scents, the telltale signs of mold. But by the time a book begins to smell, the fungus is already damaging its host. “All we have now is: you see it or you smell it,” says Hellman. The problem is that there hasn’t been a way to find the dormant mold *before* it spreads.

McKay professor of applied biology Ralph Mitchell is working on a test capable of detecting mold while its spores are still invisible—what he calls an early diagnosis. “These are infections,” he explains. “They will infect the other books and the next thing you know, you’ll have a bunch of moldy books.”

The attacker is airborne. Fungal spores multiply under warm or damp conditions. They feed on the cellulose in paper and beget new spores that can then disperse into the air and settle on other books: what begins as a local-

ized problem can theoretically ruin an entire collection. Hellman sees mold as a major threat to the health of library holdings. Last year, the conservation lab (located beneath the steps of Widener) treated some 82,500 books. About one in a



Ralph Mitchell



**Mold, seen here at 1,000-times magnification, wraps itself around fibers. Depending on conditions, it can lie dormant or quickly overrun its host.**

in looking at conservation from a biological, rather than chemical, standpoint) have worked to protect Neil Armstrong's space suit from bacteria (see "Microbes Eat the Past," January-February 2002, page 9) and prevent an underwater oil spill at

the USS *Arizona* Memorial in Pearl Harbor.

Mitchell adapted his mold test from a European method that measures fungal levels in soil. The analysis, run mainly by postdoctoral fellow Nick Konkol, spots mold indirectly. Konkol first places the fungus *Aspergillus niger* (a common mold) and a drop of nutritious liquid on small circles of paper in petri dishes. He then removes a dish every 24 hours and adds a compound that breaks apart and fluores-

ces when it encounters the byproducts of mold growth. By measuring the amount of fluorescence on each sample, Konkol can track the fungal growth. Hellman initially provided test paper from the library, but after that ran out, Konkol bought his own supply, a yellowing study of Freud, for five dollars. (He made sure, he says, that the book was still in print.)

Although this research is still at an early stage, Konkol has already had some success: during a recent experiment, four paper discs appeared spotless 24 hours after being infected. When he tested them with a fluorometer, however, the machine detected the burgeoning mold. Konkol had proved the test effective, finding the fungus before he (or a librarian) could see or smell it. If Mitchell's lab can develop the test further, Ethel Hellman says, "Every library out there, every colleague I have, would leap to have this tool."

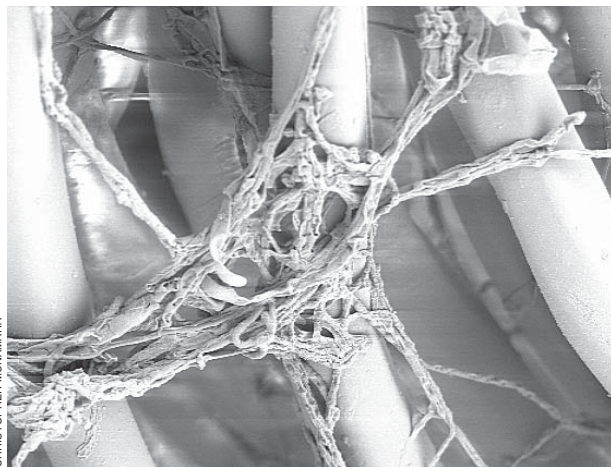
—PAUL GLEASON

RALPH MITCHELL E-MAIL ADDRESS:

[mitchell@seas.harvard.edu](mailto:mitchell@seas.harvard.edu)

RALPH MITCHELL WEBSITE:

[www.seas.harvard.edu/mitchell](http://www.seas.harvard.edu/mitchell)



CHRISTOPHER MONMARA

hundred suffered from mold infections, and once a book is moldy, it never completely recovers or goes back into circulation.

Books belong to the larger group of what Mitchell calls "cultural heritage materials." This includes paintings, sculptures, historic buildings, and even tombstones—anything that is susceptible to microbial attack. He has been practicing preservation science for 15 years, and in that time he and his lab (which is atypical

## Re-View AT THE SACKLER MUSEUM

ON OCTOBER 30, 2008, loyal magazine donors gathered at the Sackler Museum in Cambridge, Massachusetts, for a private viewing of *Re-View*, an exhibition of the finest and most significant works in the Harvard Art Museum's collections.

To learn how you can become a Friend of Harvard Magazine, please visit [www.harvardmagazine.com/friends](http://www.harvardmagazine.com/friends).



COUNTER CLOCKWISE FROM BOTTOM LEFT: Docent Susan Glassman describes a painting to a group of guests; Amy Bermar, Olivia Donnini, Mirella Stellini, and Alessandro Donnini '81; ABOVE: A guest ponders Joan Snyder's *Summer Orange*, 1970; Jacqueline Whitney '78, Katharine Fleischmann '76, and Harvard Magazine publisher Cathy Chute.



# What will you be driving at age 119?

And other things worth considering.

“  
These days, more people are living to age 100, and beyond. As you'll learn in the first Thought Series<sup>SM</sup> podcast from Cambridge Trust Company, technology is helping them live better. In the next few years, a major automobile company will introduce a car that can give you a checkup while you're behind the wheel. It will be able to assess your stress level and adjust its performance, lighting, and interior scent accordingly.

You'll also hear about healing homes. Rather than make frequent trips to the hospital for medicine and routine checkups, you or your caregiver can rent a hospital

room online and have it delivered to your home address. The room comes with a bed and various diagnostic machines, so you can monitor your health on a daily basis.

---

*How can you  
rewrite the rules  
of old age?*

---

At Cambridge Trust Company, we believe that managing wealth effectively is an essential part of living well in every stage of life. That's why we're bringing you this podcast on longevity and technology. Whether you're 45 with young children, or

90 and still going strong, our advisors have both the personal interest and technical expertise to help you achieve your financial goals. Visit our Web site for more Thought Series articles, podcasts, and events.

---

Hear the director of the MIT AgeLab discuss  
technology's impact on longevity at  
[www.cambridgetrust.com/longevitypodcast](http://www.cambridgetrust.com/longevitypodcast)

CAMBRIDGE TRUST  
**Thought**  
S E R I E S<sup>SM</sup>

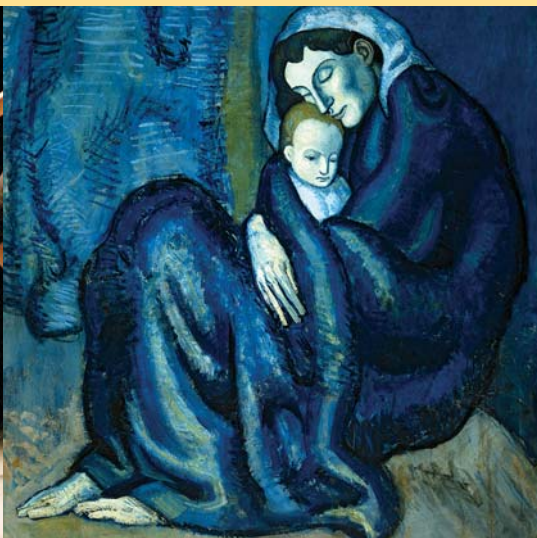
*Curiosity, rewarded.*

Cambridge Trust Company



# New England

REGIONAL SECTION



## Extracurriculars

### NATURE AND SCIENCE

#### The Arnold Arboretum

[www.arboretum.harvard.edu](http://www.arboretum.harvard.edu)

617-524-1718; Jamaica Plain, Boston

The arboretum offers classes, outings, exhibits, and lectures throughout the year. Check the website for detailed listings.

• January 20, 6:30-8:30 P.M.

*The Carpenter Poets of Jamaica Plain*, who write about their trade, read from their reflections on lumber and trees.

#### The Harvard-Smithsonian Center for Astrophysics

[www.cfa.harvard.edu/events](http://www.cfa.harvard.edu/events)

617-495-7461

Phillips Auditorium, 60 Garden Street

• Lectures at 7:30 P.M.—“The Worldwide Telescope” on January 15 and “Galileo and the Invention of the Telescope” on February 19—followed by stargazing, weather permitting.

### FILM

#### The Harvard Film Archive

[www.harvardfilmarchive.org](http://www.harvardfilmarchive.org)

617-495-4700

Visit the website for complete listings.

• February 15-22

American director William Friedkin will be on hand during the screenings on February 20 and 21 to discuss his works, including *The French Connection*, *The Exorcist*, *To Live and Die in L.A.*, *The Boys in the Band*, *The Brink's Job*, *Sorcerer*, and *Cruising*.

### THEATER

#### The American Repertory Theatre

[www.amrep.org](http://www.amrep.org); 617-547-8300

Loeb Drama Center

• January 10 through February 1

*The Seagull* by Anton Chekhov

• February 14 through March 15

*Endgame* by Samuel Beckett

### DANCE

#### The Harvard Dance Center

[www.fas.harvard.edu/dance](http://www.fas.harvard.edu/dance)

[www.boxoffice.harvard.edu](http://www.boxoffice.harvard.edu) (for tickets)

617-495-8683; 60 Garden Street

• February 5 at 7 P.M.

The fifth annual *Boston Ballet Talks* features an informal discussion with artistic director Mikko Nissinen and dancers from the company, as well as the perfor-

mance of excerpts from Jiří Kylián's *Black and White* ballets.

### MUSIC

• February 20 at 8 P.M.

[www.harvardjazz.org](http://www.harvardjazz.org); 617-496-2263

*The Twelfth Annual Harvard Club of Boston Horblit Jazz Combo Festival* features student ensembles performing original compositions and standards; professional critiques; and cash awards. Free and open to the public at the Harvard Club on Commonwealth. [www.harvardclub.com](http://www.harvardclub.com).

• February 27-28 at 8 P.M.

[www.hcs.harvard.edu/rcs](http://www.hcs.harvard.edu/rcs); Lowell Hall

*The Festival of Women's Choruses* showcases the *Radcliffe Choral Society*, the Elm City Girls' Chorus, and groups from Smith and Amherst Colleges.

#### Sanders Theatre

[www.boxoffice.harvard.edu](http://www.boxoffice.harvard.edu)

617-496-2222

• January 17 at 7:30 P.M.

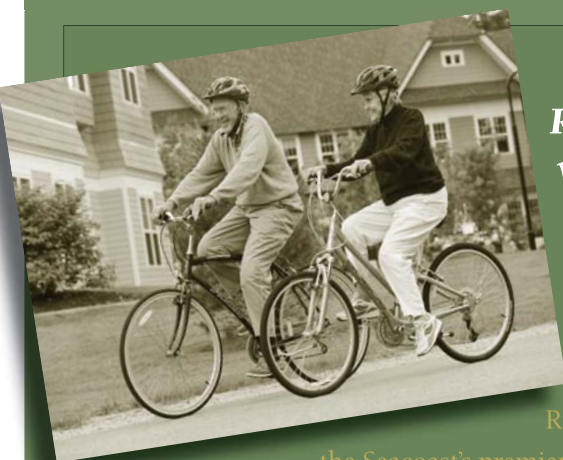
A *Joyful Noise Concert* honors the legacy of the Reverend Martin Luther King Jr. Presented by the Cambridge Multicultural Arts Center.

• February 24 at 8 P.M.

*The Houghton Library Chamber Music Series* offers selections by Sprezzatura from Heinrich Schütz's *Kleine Geistliche Konzerte*.

Left to right: Boston Ballet dancers perform from the *Black and White* program; Picasso's *Mother and Child* on display at the Sackler Museum; and pottery and glass shards unearthed from excavations of the Harvard campus.


FROM LEFT TO RIGHT: ERIC ANTONIOU/THE BOSTON BALLET; COURTESY OF HARVARD UNIVERSITY ART MUSEUM; MARK CRAIG/THE PEABODY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY © PRESIDENT AND FELLOWS OF HARVARD COLLEGE



**Rediscover life without worries.**


Explore lifelong interests and meet new friends, all on the beautifully wooded campus of RiverWoods at Exeter, the Seacoast's premier life care community. Experience peace of mind while you live your best life. Call today for your personal tour (800) 688-9663 or (603) 658-1500.

Riverwoods residents  
Tom and Mimi Adams



**RiverWoods**  
— AT EXETER —

7 RiverWoods Dr., Exeter, NH 03833 • [www.riverwoodsrc.org](http://www.riverwoodsrc.org)




**At Brookhaven**

**lifecare living is as good as it looks.**

Brookhaven at Lexington offers an abundance of opportunities for intellectual growth, artistic expression and personal wellness. Our residents share your commitment to live a vibrant lifestyle in a lovely community.


Call today for a tour of our model apartment and newly renovated Commons!



*A Full-Service Lifecare Retirement Community*

**BROOKHAVEN**  
AT LEXINGTON

[www.brookhavenatlexington.org](http://www.brookhavenatlexington.org)  
(781) 863-9660 • (800) 283-1114



## NEW ENGLAND REGIONAL SECTION

### EXHIBITIONS

#### The Harvard Art Museum

[www.artmuseums.harvard.edu](http://www.artmuseums.harvard.edu)

617-495-9400/9422

• Continuing: *Re-View*, at the **Sackler Museum**, offers a wide range of selected works from all three art museums.

#### Carpenter Center for the Arts

[www.ves.fas.harvard.edu/ccva.html](http://www.ves.fas.harvard.edu/ccva.html)

617-495-3251

• Opening February 19: *Corbu Pops*, with a lecture, free and open to the public, at 6 p.m. Multimedia performance artist William Pope.L will talk about his newest installation, which investigates "modernism, utopia, nonsense, blackness, purity, and factory production," and then perform with undergraduates.

#### Peabody Museum of Archaeology and Ethnology

[www.peabody.harvard.edu](http://www.peabody.harvard.edu); 617-496-1027

• Continuing: *Digging Veritas: The Archaeology and History of the Indian College and Student Life at Colonial Harvard*. The exhibit displays finds to date and describes early life on campus.

#### Harvard Museum of Natural History

[www.hmnh.harvard.edu](http://www.hmnh.harvard.edu)

617-495-3045

• Through February 8: *Looking at Leaves: Photographs by Amanda Means* invites a closer look at the beauty and diversity of the natural world.

• Through March 1: *Sea Creatures in Glass* reveals the exquisite artistry of Leopold and Rudolf Blaschka (creators of the Glass Flowers) in their many marine creatures, on display for the first time since Harvard acquired them in the late 1800s.

• Continuing: *The Language of Color* explores the many ways animals acquire and use this vivid means of communication.

#### The Semitic Museum

[www.fas.harvard.edu/-semitic](http://www.fas.harvard.edu/-semitic)

617-495-4631

• *Ancient Egypt: Magic and the Afterlife* offers a distinct view of the hereafter.

• Continuing: *The Houses of Ancient Israel: Domestic, Royal, Divine* features a full-scale replica of an Iron Age (ca. 1200-586 B.C.E.) village dwelling.

Events listings also appear in the *University Gazette*, accessible via this magazine's website, [www.harvardmagazine.com](http://www.harvardmagazine.com).





# GAIL ROBERTS & TEAM

Vice President  
1730 Massachusetts Ave  
Cambridge, MA 02138  
617 245-4044



CAMBRIDGE, MA  
Just off Brattle Street on almost a quarter of an acre is this turn-of-the-century home. Features include a 25' Living room w/ fireplace & window seat; dining room w/ diamond shaped leaded glass windows; eat-in kitchen w/ granite; master w/ study & sleeping porch; & 3rd floor guest suite & family room. \$1,675,000



CAMBRIDGE, MA  
A short distance to Harvard Sq., this spacious, & dramatic corner co-op with multiple exposures is in a full-service building with spectacular views of the Charles River & Boston skyline. It has over 1800 sq. ft. a corner living room (approx. 28' x 28'), 2 beds, 3 baths, two 13' balconies, c/a & garage \$1,285,000



CAMBRIDGE, MA  
Harvard Square - Rare opportunity, one of the finest examples of the International Style in the U. S. Designed by Philip Johnson for himself while a student at Harvard. Surrounded by a 10' wall, all glass façade, Zen garden, parking. Price Upon Request



CAMBRIDGE, MA  
Brattle Street - Charming 2 bed condo in a classic brick landmark Harlow building. Spacious living room, study, dining room w/ built-in cabinet & wide bay, study & newly renovated kitchen w/ granite. built-ins, hardwood floors, tall windows, wainscoting & storage. \$485,000



CAMBRIDGE, MA  
Just renovated handsome 7 room, 3+ bed townhouse in Huron Village. Living room with fireplace & French door to deck; kitchen with maple, granite & stainless appliances. Master with bath en suite; family room, patio & yard. Near shops, restaurants, golf course & Fresh Pond. \$799,900



CAMBRIDGE, MA  
Beacon Hill style brick row house, c. 1859. Living room w/ wood stove; renov. kitchen w/ ss, granite & island; 3 beds + study; 2 1/2 baths. Curved Bullfinch staircase, wide pine floors, high ceilings, period moldings & skylight. Beautiful front garden; enclosed back garden w/ brick & stone patios \$819,000.



CAMBRIDGE, MA  
Cambridgeport - Fantastic 2 bed condo with open plan. 31' living/dining with bay, moldings & French door to 18' balcony, kitchen with maple, stainless & tiled back splash. Amazing 16' master with 2 balconies. High ceilings, hardwood floors, in-unit laundry, fenced yard, patio, storage & parking. \$478,000

GAIL ROBERTS & TEAM  
WISH YOU HEALTH, WEALTH  
AND HAPPINESS IN 2009  
*Gail Roberts, Pebble Gifford, Holly Alderman,  
Ed Feijo, Margot Lubin, Stephanie Zerner*



[gail@roberts.org](mailto:gail@roberts.org)  
[gailrobertsrealestate.com](http://gailrobertsrealestate.com)  
617 245-4044



If your property is currently listed with a real estate broker, please disregard. It is not our intention to solicit offerings of other real estate brokers. We are happy to work with them and cooperate fully. Owned and operated by NRT Incorporated. An equal Opportunity Employer Equal Housing Opportunity

# The Mature Dating Game

Resilient romance • by Nell Porter Brown

**S**INCE SEPARATING from her husband, one Boston-area alumna in her late forties has had numerous dates and even a long-term relationship. "But it's oddly difficult to meet people," she says. "I've done on-line dating, matchmakers—the gamut. I did see someone I liked while jogging in the woods, but I didn't get his number. That old adage 'Do what you like to do and you'll find someone you like' doesn't really work anymore."

For those over 45, the world of dating is more complicated for a variety of reasons,

ranging from the logistical to the emotional. For many, returning to that scene after divorce or the death of a spouse means adapting to new modes of social networking, such as Internet dating sites. For others, "putting yourself out there" requires gearing up emotionally and physically after a long hiatus—or being more open about who "the right" person might be. For everyone older—and less energetic—facing the risk of rejection takes courage, creativity, and resilience: in short, more personal effort.

"After age 45, single people face a fork

in the road," says Rachel Greenwald, Ed.M. '87, M.B.A. '93, a dating coach based in Denver and the author of *Find a Husband after 35 (Using What I Learned at Harvard Business School)*. "Either they decide they are happy with their life the way it is, and take the chance that Mr. or Ms. Right will land on the doorstep serendipitously," or they grow outside their comfort zone—asking "coworkers, your Realtor, your stock broker, your neighbors, and other people you barely know to fix you up with people, going on speed dates and lunch dates...it can feel embarrass-

## OPEN TO BUY



*Large Diamonds,  
Precious Gemstones,  
Estate Jewelry, Watches,  
Platinum & Gold*

**DAVID & COMPANY**  
SELLERS & COLLECTORS OF BEAUTIFUL JEWELRY

232 Boylston Street (Route 9)  
Chestnut Hill, MA 02467

617.969.6262

1.800.328.4326

[www.davidandcompany.com](http://www.davidandcompany.com)

Cadbury Commons  
AT CAMBRIDGE

Retirement Community  
Assisted Living

**What Do Harvard Alumni  
Have in Common?**  
**Cadbury Commons**  
*An Uncommon Senior Residence*

The Harvard alumni who chose Cadbury Commons may have retired from work, but not from life. The difference is people—those who live here and the staff that serves them. Our programs will engage your interests, our professional staff is sensitive to your needs.

Call (617) 868-0575 to arrange a personal tour,  
or visit [www.cadburycommons.com](http://www.cadburycommons.com)



66 Sherman Street, Cambridge,  
MA 02140 • (617) 868-0575



*Romance!*

*Why wait for  
Valentine's Day?*

*Indulge tonight*

8 Holyoke Street, Cambridge, MA  
617-497-5300 • [www.sandrines.com](http://www.sandrines.com)



## NEW ENGLAND REGIONAL SECTION

ing," Greenwald continues. "But I see it as empowering—to take things into your own hands and be active. That is how the game is played after 45."

Geordie Hall '64, for example, divorced after a 30-year marriage, now lives in rural Vermont and meets women through outdoor activities, volunteering, or community fundraisers. "I'm very active: I go hiking out West, backpacking, and I'm a passionate skier," he says. "It's important to me to have somebody who shares some of my lifestyle, so I meet people through activities I like. My objective is not to be alone the rest of my life. Sharing experiences on a daily basis is very important to me."

AN AARP REPORT published in 2003, *Lifestyles, Dating, and Romance: A Study of Midlife Singles*, found that what respondents liked most about being single was "personal freedom"; the worst aspect was "not having someone around with whom to do things." Older daters seem particularly torn between these two desires, and

each side tends to be more "set in their ways," says matchmaker Sandy Sternbach, owner of The Right Time Consultants, who specializes in clients who are 36 to 70. "But mature love is really about caring for someone else's well-being," she counsels. "It's about putting up with people's imperfections, their struggles—sometimes illnesses—and knowing who they are and helping them have a good life with you. It's not all about you."

The AARP report also revealed what seems a more general ambivalence about dating. Though 63 percent of respondents were either in exclusive dating relationships or dated regularly, the balance of midlife singles were either "interested daters" (not dating, but would like to find a date), "daters-in-waiting" (not actively looking, but would date if the "right

person came along"), and "disinterested" non-daters.

Overall, men were slightly more likely to date than women, but women in their forties went out more often than their older counterparts. On dates, both men and women sought a "pleasing personal-



## PREMIER PROPERTIES

### ANTRIM STREET TOWNHOUSE



Conveniently located in Mid Cambridge on a lovely street between Inman and Central Squares, this 3-level townhouse-style condominium is one of 6 units in a 100% owner-occupied building. With southern exposure, it offers central air, three bedrooms, dining room, deck, living room with fireplace, study, two full baths, garage parking, and garden. \$710,000

Real Estate Taxes: \$3,600 (est.),  
Condo Fee: \$245 per month, Year built: 1910

To arrange a property tour, please send email to [tracy\\_coleman@harvard.edu](mailto:tracy_coleman@harvard.edu) or call 617-495-8840.

Harvard Real Estate Services  
7 Holyoke Street • Cambridge, Mass. 02138

### Exclusive Carol & Myra Listing

### Rare Riverview Duplex



Photo by Jeffrey Dodge Rogers

On a quiet lane near the Charles River and Harvard Square, this Bradbury Court corner duplex at Riverview offers 6 gracious rooms with 3 bedrooms and 2½ baths. A private balcony leads to a sprawling, delightfully landscaped common garden. \$1,150,000

Carol Kelly & Myra von Turkovich  
Vice Presidents, ABR  
[www.hammondre.com](http://www.hammondre.com)  
617.497.4400

[carolandmyra.com](http://carolandmyra.com)

Hammond Residential  
GMAC Real Estate

### HAPPY NEW YEAR



from

**BARBARA CURRIER**

and the family team  
personally helping  
Harvard faculty  
with their real estate needs  
for 28 years!

Call Barbara: 617-593-7070  
[BarbaraCurrier@comcast.net](mailto:BarbaraCurrier@comcast.net)  
[BarbaraCurrier.com](http://BarbaraCurrier.com)



RESIDENTIAL BROKERAGE

171 Huron Avenue • Cambridge, Mass. 02138

If you would like to list a property in our March-April issue, contact Abby Williamson: 617.496.4032

**HARVARD**  
MAGAZINE



## Hammond Residential

GMAC Real Estate



**Belmont...** Magnificent 3-level townhouse. Open floor plan, 3 bedrooms, 4 1/2 baths, first floor master suite, ultra kitchen. Abuts conservation land. \$1,194,375



**Cambridge...** Superb renovation of Harvard Square 3-bedroom, 3-bath cooperative with two deluxe master suites. Custom kitchen. River views. Abundant built-ins and luxurious features throughout. Two live-in supers. \$1,695,000



**Belmont...** Phenomenal renovation in Belmont Center: 21st-century design meets 18th-century Greek Revival charm in a dreamy 13-room residence. This is a rare gem. \$2,995,000

**www.hammondre.com**

Cambridge, Belmont,  
Watertown & Somerville

Residential, Commercial, Rentals &  
Property Management

Cambridge Office 617-497-4400  
Belmont Office 617-484-1900

## NEW ENGLAND REGIONAL SECTION

ity" and common interests and values. Women tended to add financial stability; men more often noted physical attractiveness and potential for sexual activity.

"For many guys, how the date ends is the biggest thing on their minds throughout the entire date," says Manhattan-based love-life coach Nancy Slotnick '89, who describes herself as somewhere between a matchmaker and therapist. "This is also important to many women. People want to know if there is romantic potential or not." But the author of *Turn Your Cablight On: Get Your Dream Man in Six Months or Less* and owner of Cablight.com acknowledges that questions that take you back to high school—Does he/she like me? Should we kiss at the end of the first

relationship. "Divorced men and older men are easier to connect with."

**IF YOU CAN FIND THEM.** Those returning to "play the field" will find the "field" has moved—and shrunk. "Now, most of your friends are married and get together for dinner parties in the suburbs with other couples," says Rachel Greenwald. Those still at the peak of their careers (ages 45 to 65) probably work a lot and tend to be more isolated because they are bosses in a corner office, or work from home. Most older singles are also divorced with children, she adds, with little free time outside of solo parenting and career obligations.

With those over age 65, generalizing about dating trends is hard, cautions psy-

## Setting prerequisites is the wrong approach.

date?—can feel especially awkward or silly for older people who have lived through more serious life experiences.

Divorcée Sarah McVity Cortes '83 says she makes her interest clear in other ways—saying she likes her date, suggesting a second meeting. "But I'm not going to kiss anyone I don't want to kiss," she says. "If women start down that slope of orienting themselves to make the man feel comfortable, where does it end?"

Slotnick says her more proactive clients aim for a date a week. "Fewer than that, and you're not dating enough to work the numbers and to become a little more numb to the rejection factor," she adds. "People who date often come to realize that it's not about being 'undatable,' it's about seeing if two pieces of a puzzle fit together."

Boston attorney Jeanne Demers '83, a former biological anthropology concentrator, has "no doubt we are wired in certain ways physiologically to be attracted to certain people," but adds, "Of course, we also need the emotional tools to effectuate it in a healthy way." She has twice been close to marriage, but broke up with her last long-term boyfriend in 2007. "I guess I'm sort of half-hearted about dating," she says. "It takes effort and sometimes I'm not willing to work at it." She says unmarried men her age seem to have problems with core identity—they lack professional focus or emotional maturity, or are unable/unwilling to commit to a re-

chologist Judah Ronch, a professor at the University of Maryland-Baltimore County, who specializes in geriatric mental health. But overall, he says, such singles are more conservative (they don't trust the Internet as a social forum) and they tend to date people they already know: past loves, family friends, or old acquaintances who are now divorced or widowed. "Often, by then, all the static that comes with relationships in your twenties has been taken out, and a relationship can flourish," Ronch says. "They know they don't have time to waste, and they are looking for comfort, companionship, closeness"—and, often, sex. Acceptance of others' foibles and frailties is also a part of what makes these unions successful.

**INCREASINGLY,** those 45 to 55 are meeting online, through sites like Match.com, eHarmony, and Yahoo Personals. (There are also many shared-interest niche sites that focus on ethnicity, race, sexual orientation, religion, or activities.) Those over age 45 comprise the fastest-growing segment of users at Perfectmatch.com (it has five million members and a subsection for baby boomers), and at PlentyOfFish.com, where they tend to log on and stay on more often than younger users, says CEO Markus Frind: "They are more committed to the dating process and have a goal in mind. They don't want to be alone."

Online dating has clear advantages: ef-



## NEW ENGLAND REGIONAL SECTION

iciency, convenience, and geographic breadth. It creates “a bit of the kid in the candy store mentality,” says Los Angeles divorcee Jeffrey Balash, M.B.A.-J.D. ’73, who has had three longer-term relationships with women he met online. But the anonymity, he notes, can prompt some “socially undesirable behavior,” such as misleading photographs, married people posing as singles, and even outright scams. (Jeanne Demers has had men tell her, “Wow, you actually look like your photo.”)

The Boston-area alumna who has used Match.com and Jdate.com (for Jewish singles) says she hates the process because it’s impersonal, impolite, and superficial. Perusing the photographs and bios of men “takes on a video-game quality—you can look at 40 people a night and take a pass on all of them,” she says. “And because you have so little to go on, you gravitate toward the most attractive photos and make snap decisions based on that.”

Greenwald has conducted hundreds of interviews with single men for her forthcoming book *Why He Didn't Call You Back*. She says the Internet “candy store” mentality often leads to a paradox of choice: “After 45, all of a sudden, the guys who couldn’t get any girls in high school have so many wonderful women coming across their paths, they become paralyzed, sadly, because they are looking for perfection—which doesn’t exist.” Typically, she says, a man may be dating a “beautiful, intelligent, warm woman, but she doesn’t like golf. He says, ‘I don’t know if I can live with someone who doesn’t like golf.’ It is so ludicrous. I want to say, ‘Go get a golf buddy. Why should your wife have to play golf?’”

Setting prerequisites about the “right person” is the wrong approach, says Dawn Touchings, president of The Right Stuff, a 5,000-member “introduction network” based in New Jersey that caters to Ivy Leaguers and alumni from other top schools. Database matching, used by many Internet dating sites, relies on input from candidates who list their preferences: tall/successful/athletic/religious/likes animals/loves sunsets.... “What I’ve found is just the opposite,” Touchings says. “Many of the people who meet on our site tell me the person they are compatible with did not fit any of the categories they set.”

Both Greenwald and Sternbach concur.

Sternbach often omits last names when introducing people, to avoid any pre-date Google research. “Clients end up using the data to exclude people,” she explains. “They never allow themselves the chance to slowly unfold with another person. That kind of vulnerability is something a lot of highly successful professional people are not comfortable with. But it’s also part of the mystery and excitement of two people coming together.”

How people evaluate partners and their own needs necessarily changes over time, Greenwald says. Those in their twenties and thirties look at potential—to hold down a job, earn money, be a good parent, evolve. But people in their forties through their eighties, she explains, are fully formed: they can be stuck in a career rut because of financial considerations (alimony, child support, pensions, mortgage); have health problems; or have emotional “baggage” from prior life experiences, which is entirely normal. “You have to evaluate people as a known quantity and accept who they are now,” she says. “It’s a very different view, and I don’t think that people later in life [are aware enough to] make that important switch.”

As Demers puts it, “I’m more set in my ways now.” She wants to meet a compatible man, but is “not unhappy; I like my life.” Someone she now dates casually is unlike any of her previous partners—he’s Jewish, nurturing, has a sense of humor, and thinks Demers is funny. For a while there was some potential. “Unfortunately,” she says, “the ‘chemistry’ is missing, which makes me wonder: is my wanting to be in a romantic relationship with a man who is my ‘best friend’ an unrealistic expectation? Why can’t both aspects be in one man? Of course, it’s me too. Obviously, I have my own baggage. But at least I know it—and I’m working on it.”

In the end, emotional obstacles can often be worked through, says Sternbach. She points to a client in her seventies who finally met a man who “makes her laugh; they travel together and they are simpatico. My client has never been happier. You can have that—be in love in your seventies—but it’s something you have to work at, something that has to be nurtured.” ▢

*To be continued in the next issue.*

## *A Unique Employee Benefit Program for All Faculty, Staff and Retirees of Harvard University and its Affiliated Hospitals.*

With the *Real Estate Advantage Program*, you will receive a cash-back bonus, outstanding service, and the support that you need throughout the buying, selling, downsizing and moving processes. For more information about our program and to find out about upcoming real estate seminars and webinars, please contact

Beth Duncan at

**800-874-0701 x4932**

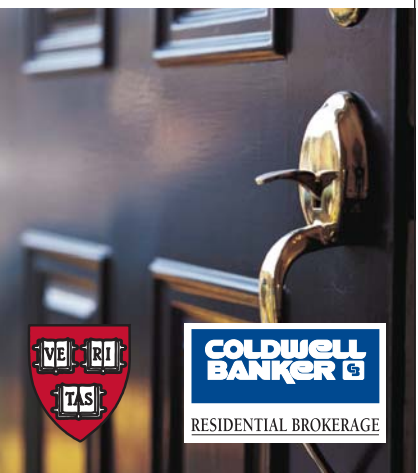
Beth.Duncan@NEMoves.com

Harvard Faculty  
Real Estate Services at  
**617-495-8840**

[www.facultyrealestate.harvard.edu](http://www.facultyrealestate.harvard.edu)



©2008 Coldwell Banker Real Estate LLC. Coldwell Banker is a registered trademark licensed to Coldwell Banker Real Estate LLC. An Equal Opportunity Employer. Equal Housing. Owned and operated by NRT LLC. RL3985 11/08



ADMINISTERED BY

**Harvard Faculty Real Estate Services**

IN PARTNERSHIP WITH

**Coldwell Banker Residential Brokerage**  
**[www.NewEnglandMoves.com](http://www.NewEnglandMoves.com)**

# Eclectic Eating

*A Southern-inspired grill fills a Somerville niche.*



COURTESY OF HIGHLAND KITCHEN

VETERAN CHEF Mark Romano opened Highland Kitchen to feed a neighborhood hungry for a great hangout/restaurant—and to enjoy complete freedom in the kitchen. “I like to think of it as a place where everyone can feel at home,” says Romano, who grew up in the South. “It’s an American place with a definite East Coast shoreline feel—all the way from Florida to Maine.”

Romano’s style (practiced at soul-food joints, the Blue Room, and the old Green Street Grill) has a distinctly Southern flare with some saucy Caribbean twists. But the kitchen also turns out traditional English pub food and assorted Italian pastas with nary a tropical fruit, collard green, or peppery spice in sight. “I’m not too crazy about fusion cooking,” he explains. “But we *do* have freedom to do whatever we

**Above: Highland Kitchen blends into the neighborhood, but stands out for its cooking.**

want within a cuisine.” Hence the outstanding jerk swordfish entrée (\$18.95) served with a chunky plantain-pineapple ketchup created by Romano’s sous chef, Chris Thompson. And nowhere else can you find such amazing Korean-style fried chicken wings (\$7.95)—coated with a kicky hoisin sauce and sesame seeds and served with a fresh mound of kimchi spiced with chili paste and slivers of red pepper. Moreover, it’s a flexible, affordable menu: side dishes, around \$3 each, abound, including fluffy deviled eggs, house pickles, and chili cheese fries. Or you can tuck into a Cuban Reuben, catfish po’ boy, or assorted salads, like arugula mixed with fresh figs, blue cheese, and spiced pecans—for about \$10 each.

Among the entrées, people rightly rave about the delicate beer-battered fish (haddock) and chips

(\$15.95). Served sizzling hot, the fresh-cut potatoes come with skins on and a bottle of vinegar. Meat lovers should try the 10-ounce “flat-iron” steak with a rich basil butter sauce, those fabulous fries, and a side of peppery wilted watercress (\$21.95), while vegetarians are treated to one of the most popular dishes on the menu, a subtle, Tuscan-style mushroom lasagna with butternut squash and Swiss chard (\$14.95).

Old Grill regulars will recognize the mildly incendiary coconut curried goat stew (\$18.95), with softly fragrant jasmine rice and sweet fried plantains, now offered at the new Somerville location. The Kitchen draws a mixed crowd of older students, young professionals, and working-class families, nicely reflecting its neighborhood. The place has an “artistic tavern” feel—dark sky-blue walls, wooden tables, and built-in benches and a purplish-brown ceiling hung with wonderful, organic-looking chandeliers made of wire and glass by Cambridge sculptor Tom O’Connell. A neon martini sign beckons diners from a front window.

Romano’s wife, Marci Jo, runs the dining room, and sometimes grants requests to turn down the jukebox—a decision Romano doesn’t always like. The chef sought out a vendor who’d let him play his own CDs (he has hundreds), and the music is a big part of the mood: old soul, R&B, and select country. (On Sundays, a live bluegrass band plays during brunch.)

With Patsy Cline singing her aching heart out after our rich meal of boldly diverse flavors, we were relieved to see desserts that tended toward the comforting: warm banana-bread pudding (\$6), served with caramel sauce and vanilla ice cream, that slid right down, and apple

crisp (\$6) with a lemony undertone. What more can we say? We’ve already been back twice. ~N.P.B.

## HIGHLAND KITCHEN

150 Highland Avenue

Somerville

617-625-1131

[www.highlandkitchen.com](http://www.highlandkitchen.com)

Dinner and Sunday brunch



# Montage

Art, books, diverse creations



- 18 Open Book
- 19 Imagining the Past
- 20 Off the Shelf
- 21 "Working Sisters"
- 23 Chapter and Verse

short essay on what the reader is about to see. "At first I turned my eyes away," he writes in the introduction to his urbanism chapter, "hoping the messiness of what I was seeing would not affect my interpretation of natural beauty. Over time, however, I turned the focus of my camera on these more degraded areas with a vengeance, hoping that

others might see the destructive process at work."

The book includes images of man-

**Alex MacLean with tools of his trade: a new fuel-efficient plane and his camera**

sions outside Pittsburgh, decommissioned nuclear plants in Oregon, rows and rows of recreational vehicles in Arizona, seaside skyscrapers in Florida, and even Harvard's own Jordan Field near the Charles River. Below each photograph, a caption explains its subject's environmental significance. (The picture of Jordan Field shows its synthetic surface being watered, a prerequisite before field hockey matches; "a fine mist evaporates from this large sprinkler before it even reaches the ground, representing wasted water," MacLean chides.)

Over pays particular attention to water use in America's southwestern deserts. A grant from the Lincoln Institute of Land

## Up in the Air

*Pictures of a changing planet*

by PAUL GLEASON

A COMMON WAY to dramatize climate change is to show before-and-after pictures: now you see the icebergs, now you don't. "It seemed like there was more to it than that," says Alex MacLean '69, M.Arch. '73. Photographs of vanishing glaciers show the effect but not the cause, he says, leaving out the "everyday way we live and the way we use and produce energy" (see, for example, "A Melting World," May-June 2006, page 36). To him, refineries, inter-

state highways, and sprawling suburbs tell a larger story about how we use our resources and the consequences that follow. He chronicles our impact on the atmosphere from the atmosphere, taking pictures of the ground from high above as he crisscrosses the country in his plane.

MacLean's seventh book, *Over: The American Landscape at the Tipping Point* (Abrams), collects hundreds of his aerial pictures. The book is divided into nine chapters, each on a different topic, such as energy or sprawl. He begins each chapter with a

O P E N B O O K

# Before the Cocktail Napkin

University of Virginia. The architect who interests her is best known as a painter and sculptor. In *Michelangelo, Drawing, and the Invention of Architecture* (Yale, \$65), rather than examining his drawings for insight into his buildings, Brothers interprets his buildings (the Medici Chapel and Laurentian Library) as the product of his imagination worked out on paper. She dedicates the book to Howard Burns, an expert on Palladio who taught at Harvard's Graduate School of Design, and to the late Adams University Professor John Shearman, a leading Michelangelo scholar. Brothers also benefited from time spent at the Villa I Tatti and Dumbarton Oaks.

**M**ichelangelo transformed the purpose and appearance of architectural drawings, and in so doing changed architecture itself. He demonstrated the possibility for architecture to be a vehicle for the imagination equal to painting or sculpture. The distinct character of his drawings... show[s] the way in which he would

(in the words of Vasari), few were willing or able to follow his lead. The asymmetry between Michelangelo's experimental and exploratory approach to architecture and drawing and its tepid legacy may in part be explained by the advent of architectural education.... As the [sixteenth] century progressed, so did an increasingly rigid set of expectations about what an architect should know—principally, a canonical set of Roman monuments and the details of the classical orders. Key to the formation of these standards was the use and diffusion of drawings and printed images of Roman monuments, which came to constitute textbooks of ancient architecture. The sheer repetition of a limited set of images narrowed the palette of representational choices and led to greater conformity....

In general, surprisingly little attention has been paid by scholars to the connections between Michelangelo's activities as a painter, sculptor, architect, and poet. These links would have been much more intuitively obvious in the fifteenth and sixteenth centuries than they are today. In 1568, for example, Benvenuto Cellini stated that Michelangelo "was the greatest architect who ever was, only because he was the greatest sculptor and the greatest painter." Yet much of the literature on Michelangelo has fallen prey to a sort of academic compartmentalization antithetical to the nature of his artistic production.

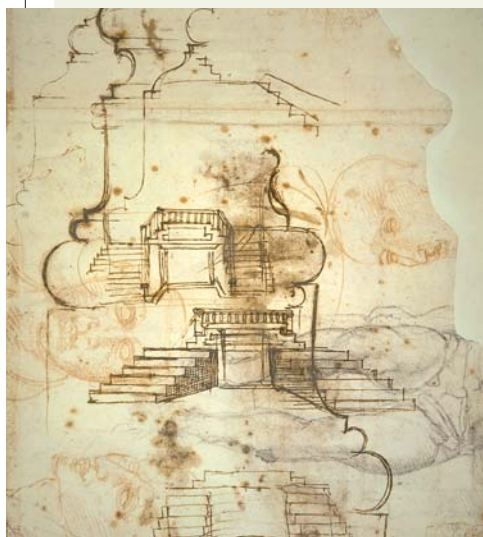
"The sketch on a cocktail napkin has become a modern-day shorthand for architectural epiphany," writes Cammy Brothers '91, Ph.D. '99, an associate professor of architecture at the

Policy, a research organization in Cambridge, helped fund years of observation in Arizona, New Mexico, and Nevada. MacLean flew above artificial lakes and gaudy casinos, one with fountains shooting thousands of gallons of water into the air. Neon-green golf courses, which also require an immense amount of water, dotted the brown landscape. "A lot of these photographs, I think, are almost metaphors or symbols for these larger ideas," he says. "When you're looking at using a limited resource for purposes of golf in the middle of the desert, it raises questions about how resources, finite resources, are used and who gets to use them." (For more information, visit [www.alexmaclean.com](http://www.alexmaclean.com).)

MacLean traces his interest in environmental issues to his childhood home, an 11-acre "hobby farm" that his father, a researcher at the National Institutes of Health, had bought outside Washington, D.C. As an undergraduate, he took up photography; while at the Graduate School of Design, he learned to fly. "I was lucky because I had a friend who taught at a flight school that his uncle owned in Florida," MacLean remembers. The school had a summer camp, and MacLean signed on as a counselor; during the next few months, he earned his license.

After completing his degree and traveling for a year, MacLean settled in Syracuse and worked at a landscape architecture office. He quickly decided he would rather spend time in the air. "Then it was just a matter of: how do you actually generate enough income to support flying and taking pictures?" He sold photographs to university slide libraries before branching out to jobs for architects and planners who needed a bird's-eye view of their projects. Now he is based in the Boston area, with commercial jobs, stock photographs, and gallery prints each supplying a third of his income.

Far from distracting from his artistic pursuits, the jobs for architects and planners give MacLean the chance to hone his skills. "The commercial work is really like target practice," he says. To get the picture his clients need, he has to consider a host of variables. Once he establishes what sort of lighting he wants (backlit or front?), he approaches from the appropriate angle. He then opens his window and holds the camera steady with both hands, controlling the plane



Michelangelo's studies for the vestibule stairs, Casa Buonarroti, Florence.

start with a remembered form, and how, in drawing and redrawing it, it would take on an entirely different aspect.... Michelangelo's unusual approach to architectural drawing emerged from his figurative drawing practice.

The irony of Michelangelo's architectural legacy, however, is that his fame eclipsed his influence. In other words, while he acquired renown for "breaking the bonds and chains" of architecture



Visit [harvard-mag.com/extras](http://harvard-mag.com/extras) to view other examples of Michelangelo's architectural drawings.





Above, trailers dot the landscape near Lake Havasu, Arizona. At right, homes in Galveston, Texas, are built on wetlands. MacLean fears that, if the sea level rises, communities like this one will be especially vulnerable.

only with the pedals at his feet. If he needs to shoot downward, he banks the plane to one side—but this maneuver complicates his shot, because banking makes the plane turn and sink. To compensate, MacLean sets up above and to the side of his target, then swoops across it. If he's flying over a city, he also has to contend with air-traffic controllers and crowded airspace.

His commercial jobs are also chances to scout points of personal and artistic interest. While flying from New Mexico to

“Using a limited resource for purposes of golf... raises questions about how resources, finite resources, are used and who gets to use them.”

Wyoming, he might cruise over Denver to look at new urban developments. Going up expecting to find something beautiful or meaningful enough to put into a book on *every flight*, MacLean says, would quickly frustrate him. Instead, he sits back and waits for something to catch his eye. “To an extent, it’s happenstance,” he says. “But that’s the nature of the art form.” He may not even know exactly what he’s seen until after he lands and re-

views his pictures. “It seems like you’re actually drawn to the image, but you don’t fully understand it,” he says. “At the time, it’s more of an intuitive, subliminal thing.”

Even the suburbs and shopping malls have to hold some sort of attraction. “The images have to be alluring,” he says. “You have to bring the viewer into them, so they’ll look at them and think about what they’re actually looking at.”

## Imagining the Past

*Lost art—and loves—in a new novel*

**E**VEN BEFORE she started writing a novel about France during and after the Second World War, Sara Houghteling ’99 felt as if she’d been there. Her grandparents, who had lived in Paris (her grandfather was working for the Marshall Plan), filled her head with stories about foreign aristocrats, rationing, and Parisian men who could peg her grandmother as an American by her shining hair. (Who but an American would have shampoo?) Houghteling’s forthcoming debut novel, *Pictures at an Exhibition* (Knopf), weaves such family memories into a larger story about a

young man trying to recover his father’s lost art collection.

Her narrator, Max Berenzon, is the son of a famous Jewish art dealer who, for reasons Max doesn’t understand, refuses to hand him the family business. Unhappily enrolled in medical school, Max spends more time falling for Rose Clément, his father’s assistant, than he does on his studies. The German invasion upends all their lives: the Berenzons hide in the country while Rose works in a museum, surreptitiously making records of the Nazis’ looting. (Of the more than 100,000 pieces of art stolen from French collectors

during the war, some 40,000 are still unaccounted for.) After the war, Max wanders through Paris, looking for Rose and for his father’s paintings.

Houghteling began writing the novel seven years ago, but has been researching it even longer. She concentrated in English and applied to write a creative thesis “with some very loose, strange proposal that I write a series of short stories based on Manet paintings,” she remembers. “Fortunately I wasn’t accepted.” (She examined museums in Henry James’s *The Golden Bowl* and *The American* instead.) But Manet—along with Picasso, Matisse, and Degas—appears in the novel through the paintings that line the Berenzon gallery walls.

Those paintings supplied a wellspring of inspiration. “Every time I was stuck in my novel, I would write a scene based on a different missing painting,” Houghtel-



Sara Houghteling



Visit [harvard-mag.com/extras](http://harvard-mag.com/extras) to hear Sara Houghteling read from her new novel.

community. She met a lawyer, Marianne Rosenberg, whose collector-grandfather Paul became the model for Max's father. Knowing Marianne helped Houghteling piece together a tricky character: "Seeing her gave me a glimpse of what her grandfather was probably like—someone with a lot of humor and a formidably sharp intellect."

Rose Clément, the object of Max's affection, is also based on an historical figure. Rose Valland was a curator who managed to stay on at a museum after the Nazis had kicked out other French workers. She catalogued the Germans' thefts and devoted much of her later life to tracking down the stolen art. But despite her heroism (and an autobiography), Valland remains largely unknown. "I remember seeing a picture of her in which she's very unassuming," wearing what looked like men's clothing, says Houghteling. "I wanted to find out more about her. On the Internet there was nothing, nothing, nothing." She found at least a partial answer when she learned, at a posthumous exhibition honoring Valland in her home-

ing says. One of those scenes, written about *Woman in White* by the Impressionist Berthe Morisot, survived her rigorous private editing, which nearly halved her original, 450-page manuscript.

Years before completing her novel, Houghteling shared early chapters with professors and fellow master of fine arts students at the University of Michigan. (She attended the program between 2001 and 2003 after teaching for a few years, first at the American School of Paris and then at her former high school in Brook-

line, Massachusetts.) Michigan awarded her a summer research grant for travel to Paris, and, after receiving her M.F.A., Houghteling won a Fulbright that allowed her to return to France for a full year.

She had first traveled there as an undergraduate, writing for the student guidebook series *Let's Go* (see "A Pact with Solitude," November-December 1998, page 102). But on her later trips, she traded scoping out beaches and restaurants for interviewing survivors and descendants of the Parisian postwar art

## Off the Shelf

Recent books with Harvard connections

**Unpacking the Boxes: Memoir of a Life in Poetry**, by Donald Hall '51, JF '57 (Houghton Mifflin, \$24). The 2006-2007 U.S. poet laureate writes, sparsely, of the "stony loneliness" of Exeter, the "thrilling" liberty of his Harvard years—a time of poetic flowering—and, lately, of a bipolar episode after his wife's death and of the "planet of antiquity."

**Giants: The Parallel Lives of Frederick Douglass and Abraham Lincoln**, by John Stauffer, professor of English and of African and African American studies (Twelve, \$30). The interacting lives of "the two pre-eminent self-made men in American history."

**On the Side of the Angels: An Appreciation of Parties and Partisanship**, by Nancy L. Rosenblum, Clark professor of

ethics in politics and government (Princeton, \$29.95). You may not want to hear it after a long presidential campaign, but there is justification, in political science and theory, for appreciating parties and partisanship. Rosenblum makes this point, in scholarly fashion, in pursuit of "an ethic of partisanship."

**Holy Smoke: The Big Book of North Carolina Barbecue**, by John Sheldon Reed and Dale Volberg Reed, M.A.T. '64, with William McKinney (University of North Carolina, \$30). Copiously illustrated history and lore cum recipes—Dennis Rogers's "Holy Grub" Sauce, Robert Stehling's Buttermilk Pie—by members of the North Carolina Barbecue Society, assisted by the founder of the Carolina Bar-B-Q Society.

**Shakespeare and Modern Culture**, by Marjorie Garber, Kenan professor of English and of visual and environmental studies (Pantheon, \$30). An inquiry into Shakespeare and modern understandings

of the human condition—and how the two interact—by way of essays on 10 plays, with reference to *New Yorker* cartoons, George W. Bush's college courses and presidential reading list, *Shakespeare in Love*, and more.

**Stepping Stones: Interviews with Seamus Heaney**, by Dennis O'Driscoll (Farrar, Straus, and Giroux, \$26). A thematic biographical portrait of the 1995 Nobel laureate in literature and Harvard honorand (1998), professor, and poet-in-residence—conducted, appropriately enough, by a Dublin-based civil servant in Irish Customs. (For a radically shorter approach to the same subject, see Adam Kirsch's appreciation in this magazine's November-December 2006 issue.)

**Sweet Land of Liberty: The Forgotten Struggle for Civil Rights in the North**, by Thomas J. Sugrue, Ph.D. '92 (Random House, \$35). A professor of history and sociology at Penn, past winner of the Bancroft Prize, and this past fall a visitor at the Graduate School of Design, Sugrue



town, that the former curator of the Louvre had a long-time gay lover. "Ah ha!" Houghteling thought. "This is why I couldn't find anything! History has kept her closeted...for 60 years."

Houghteling also spent hours combing through the archives at the Center for Contemporary Jewish Documentation in Paris. She tried to get a sense of what it must have been like for French Jews to return to the capital city and search train records for the names of friends and family members who weren't able to escape the German round-ups. "Ultimately, [this] is a work of fiction," she says. "But I think, in writing about the Holocaust, you have a responsibility to be as truthful to the details of the war as possible."

Such exhaustive research impressed an editor at one publishing house so much that she asked if Houghteling would be willing to rewrite the book as nonfiction. Houghteling declined. People's psychological motivations, unavailable to historians, are what she says she really wants to explore. "We'll never know what anyone else's inner life is like," she contends. "Fiction lets us imagine the answers."

—PAUL GLEASON

# "Working Sisters"

*The everyday lives of migrant women in China's world factories*

by PAN TIANSHU

THE MASSIVE rural-to-urban labor migration that has been transforming China since the late 1980s—an estimated 130 million people—is unprecedented in that nation's history. Unprompted by direct ecological or political factors such as famine, war, or the forced relocation of population groups under draconian state policy, migration in post-Mao China is more likely to be instead the result of structural forces (economic need and consequences of agricultural reform) that are beyond the control of individual farmers. Motivated by the search for opportunities to improve their own lives, rural people have taken the initiative, making decisions to shape their own destinies—and fostering unforeseen entrepreneurial individualism in the process. Above all, restless young village women have as-

sumed a major role in the current population shift, establishing a brand-new identity as *dagongmei* (literally, "working sisters") in the booming industrial cities in China's coastal areas, contributing to what sociologists call the "feminization of the global workforce."

In *Factory Girls: From Village to City in a Changing China*, Leslie T. Chang '91, who spent a decade in China as a correspondent for the *Wall Street Journal*, delivers a vivid portrayal both of the dynamics of this internal migration and of women migrants as active players in globalization and local social and economic change. More often than not, factory girls have been depicted as defenseless victims of ruthless exploitation who must work in

Leslie T. Chang '91, *Factory Girls: From Village to City in a Changing China* (Spiegel & Grau, \$26)

crafts a massive narrative of the battle for racial equality outside the Confederacy.

**Victor Fleming: An American Movie Master**, by Michael Sragow '73 (Pantheon, \$40). The *Baltimore Sun* film critic has crafted an enormous, illustrated biography of the director who "salvag[ed] *The*

*Wizard of Oz* for MGM and *Gone With the Wind* for the producer David O. Selznick"—all in one year.

**The Zoning of America: *Euclid v. Ambler***, by Michael A. Wolf, Ph.D. '91 (University Press of Kansas, \$35, \$16.95 paper). Zoning to regulate land use dates only to 1922. Wolf, a professor at the University of Florida Levin College of Law, tells the tale in lively fashion: not many books about law begin, "James Metzenbaum was desperate."

**The Patron's Payoff: Conspicuous Commissions in Italian Renaissance Art**, by Jonathan K. Nelson and Richard J. Zeckhauser, Ramsey professor of political econ-

*Real barbecuing, the old-fashioned way, at Braswell Plantation, 1944*

omy (Princeton, \$39.50). An analysis from economics (applying the concepts of signaling, signposting, and stretching) of the patron-artist interplay in the commissioning and creation of glorious works of art—and of wealth.

**On Competition**, by Michael E. Porter, Lawrence University Professor (Harvard Business Press, \$39.95). An updated, expanded collection of the strategy guru's essays. Porter's principles are briskly outlined and then applied to problems ranging from healthcare to philanthropy to the revitalization of inner-city economies.

**Moral Dimensions: Permissibility, Meaning, Blame**, by T. M. Scanlon, Alford professor of natural religion, moral philosophy, and civil polity (Harvard, \$29.95). Proceeding from troubling issues surrounding the "doctrine of double effect," Scanlon probes "a number of particular moral claims, including claims about which actions are permissible, about when intent matters to permissibility, and about various forms of moral responsibility."



OFFICE OF ARCHIVES AND HISTORY, NORTH CAROLINA DEPARTMENT OF CULTURAL RESOURCES

unsafe and unhealthy conditions, at low pay, with little job security, while enduring discrimination from urban residents and authorities—as nothing more, in fact, than cogs in a “world factory” machine that manufactures Barbie dolls, Nike shoes, Coach bags, computer microchips, and other material goods for Western customers. Now Chang sheds new light on the nature of everyday life for these

and back to the village communities where they grew up.

Her relentless attempt to represent the factory girls’ points of view has given her remarkable insight into the intimate and minute details of their daily lives, as when she writes: “[T]he migrant women I knew never complained about the unfairness of being a woman. Parents might favor sons over daughters, bosses prefer

who have managed to overcome the difficulties of adapting to the anonymity and rapid pace of city life. Chang does not lose sight of their dilemmas about dating and finding marriageable partners, the “bitterness” they have had to “eat” in the process of asserting new identities, and the moral and ethical challenges they have confronted about engaging in such business practices as pyramid sales of health products.

The factory girls usually earned and saved more than their brothers, and thus sent more remittances home to their parents as properly filial daughters. Despite the significant improvement in their economic status, they took pains to renegotiate relationships with their parents and relatives back home who were reluctant to give up traditional world-views and lifestyles. Yet the factory girls often found that the words of wisdom inculcated as

**Manufacturing toys, Shenzhen**

they grew up could not help them make sense of the harsh

conditions they faced in their new urban circumstances. Chang’s examples are often blunt and powerful: after pointing out that mobile phones have become the primary means of interpersonal communication for migrant workers (a major reason why China has the world’s largest mobile market), she shows how the loss of a cell phone can effectively sever its



workers. Dissatisfied with what she had read about them, she conducted three years of field research within the fluid community of migrant women in the city of Dongguan, a massive manufacturing and industrial center southeast of Guangzhou.

Chang focuses on Min and Chunming, two factory girls whose personal narratives form the core of her book. The strong rapport she developed with them allowed her access to their diaries, letters, cell phone text-messages, and even online chat-room exchanges. By truthfully recording their individual voices, as well as those of their friends and colleagues, Chang was able to penetrate the social universe of migrant women, which included their immediate surroundings and circle of friends: from assembly-line workshops to dormitories, self-help courses (such as “White-Collar” classes) taught at evening schools they attended, restaurants and cafés, speed-dating clubs,

**“Over three years in Dongguan, I never heard a single person express anything like a feminist sentiment.”**

pretty secretaries, and job ads discriminate openly, but they took all of these injustices in stride—over three years in Dongguan, I never heard a single person express anything like a feminist sentiment.” Such candor is absent in much of the academic discourse on gender inequality and the feminization of the workforce in China and other parts of the developing world.

Instead of resorting to feminist rhetoric, Chang demonstrates a high level of ethnographic skill (rare among journalists) in recounting the personal details of private life that migrant women shared with her. The tone of the book reflects the author’s growing appreciation for the resilience and strength of these factory girls

owner’s link to the city in which she worked and the network of social relationships she had established.

THE BOOK’S ORGANIZATION enables the reader to journey with the author from the migrants’ rural communities to China’s rapidly growing coastal cities. In the opening chapter, Chang explains that country people, especially the young, experience the desire to “go out” (*chuqu*) not simply because of the availability of city jobs and expectations about the quality of urban life, but also because there is nothing to do at home. Chang also devotes chapters to Dongguan itself, a city of contradictions and a “place without memory,” and to the inner workings of



Yue Yuen, a mammoth Taiwanese-owned factory in that sprawling city that is the world's biggest manufacturer of footwear for brand names such as Nike, Adidas, and Reebok.

The way Yue Yuen is run and managed bears a resemblance not only to the legendary assembly-line mode of production pioneered by the Ford Motor Company, but also to a state-owned, socialist enterprise. For young migrants, Yue Yuen offers both stability and opportunities for upward mobility. Chang found that almost all the managers in this factory of 70,000 people, "from supervisors of single lines to the heads of whole factories, are rural immigrants who started out on the assembly line."

**Factory girls in their dormitory, Guangdong Province**

Its employees could expect to receive basic services and benefits based on a 13-grade hierarchical managerial system. This chapter is an eye-opening experience, especially for those who believe that anything made in China is produced in sweatshops that ignore fair-labor standards and violate human rights.

But most of the book focuses on the factory girls themselves. Making ingenious use of quotes from Chunming's diary, Chang documents the struggles the young woman went through upon entering the unfamiliar if not hostile world of corporate capitalism, and the steps in her decision to embrace an indigenous version of Max Weber's Protestant ethic (e.g., "Benjamin Franklin's Thirteen Rules of Morality" and Mary Kay's Nine Leadership Keys to Success) in order to make it in the workplace. In tracing Min's progress as she is promoted from assembly-line jobs to positions in the human-resources department, Chang seems to remind us that migrant women do not exist in a world of dead-end jobs:



upward mobility is in fact an attainable dream.

In several chapters, Chang surprises the reader with stories of her own extended family's immigrant experiences, as if to juxtapose multiple and diverse voices, locations, and situations. Chang feels that she has a strong link to the factory girls because she herself left home after graduating from college and "lived abroad for fifteen years, going home to see my family once every couple of years, like the migrants did." The average reader may find it difficult to appreciate her effort to draw parallels between historical memories and recent events as she recounts the story of her grandfather, one of China's first professional mining engineers, who was trained in the United States in the early 1920s. These digressions are relatively minor, but sometimes disrupt the main flow of the book. (On the other hand, the fascinating details of Chang's

family history could be the basis for a different project, with the potential to become a bestseller such as Jung Chang's *Wild Swans* or Nien Cheng's *Life and Death in Shanghai*.)

The great contribution of Leslie Chang's book lies in its attempt to contextualize and broaden our understanding of how women migrants are reshaping relations and contemporary morality in rural and urban China. Researchers and students interested in "things Chinese" will find this book a wonderful resource and a most engaging read in which we hear the unfiltered voices of migrant women, who are too often either absent or underrepresented in scholarly works on gender and labor. ▢

*Pan Tianshu, Ph.D. '02, is an associate professor of cultural anthropology at Fudan University's School of Social Development and Public Policy, in Shanghai.*

**Pat Donovan** hopes that someone can provide her with the original source of the phrase "...and she wiped the ambassador's nose"; the reference is to an infant envisioned by his doting mother as a distinguished diplomat one day.

**Dorothy Richardson** requests an identification of the poetic fragment with

## Chapter & Verse

Correspondence on not-so-famous lost words

which William Dunlap closes his *History of the American Theatre* (1832): "Time rushes o'er us; thick as evening clouds/ Ages roll back; what calls them from their shrouds?/ What in full vision brings

their good and great,—/ The men whose virtues make the nation's fate;/ The far, forgotten stars of human kind?/ The STAGE—the MIGHTY TELESCOPE OF MIND!"

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

# THE WAR & *the Writ*

## HABEAS CORPUS AND SECURITY IN AN AGE OF TERRORISM

**H**UZAIFA PARHAT, a fruit peddler, has been imprisoned at Guantánamo Bay Detention Center for the last seven years. He is not a terrorist. He's a mistake, a victim of the war against al Qaeda. An interrogator first told him that the military knew he was not a threat to the United States in 2002. Parhat hoped he would soon be free, reunited with his wife and son in China. Again, in 2003, his captors told him he was innocent. Parhat and 16 other Uighurs, a Muslim ethnic minority group, were living in a camp west of the Chinese border in Afghanistan when the U.S. bombing campaign against the Taliban destroyed the village where they were staying. They fled to Pakistan, but were picked up by bounty hunters to whom the U.S. government had offered \$5,000 a head for al Qaeda fighters.

The Uighurs were officially cleared for release in 2004, but they remain at Guantánamo. They cannot be repatriated to China, because they might be tortured, and no other country will take them. The U.S. government does not want to allow them into the

United States for fear of setting a precedent that might open the door for detainees it still considers dangerous. In 2006, after again being told that they were innocent, and becoming desperate, some of the Uighurs began mouthing off to their captors. They were sent for a time to Camp Six, a \$30-million "supermax" prison for holding al Qaeda suspects in isolated cells.

In the tomb-like confines of this concrete prison, some of them began to crack up, says P. Sabin Willett '79, J.D. '83, a Boston-based attorney with Bingham McCutchen, the firm that has represented the Uighurs pro bono since 2005. "The Department of Defense has studied what happens to human beings when they are left alone in spaces like this for a long time and it is grim," Willett notes. "The North Koreans did this to our airmen in the 1950s. The U.S. ambassador to the United Nations went to the floor of the General Assembly and denounced the practice as a step back to the jungle."

When Willett visited Guantánamo in 2007, he met with Parhat, who was chained by the legs to the floor of his cell. Parhat

*by* **JONATHAN SHAW**



had something important to tell him. Willett recounted the exchange in the *Boston Globe*. “About my wife,” the prisoner began.

“I want you to tell her that it is time for her...to move on...I will never leave Guantánamo.

...He looked up only once, when he said to me, urgently, “She must understand I am not abandoning her. That I love her. But she must move on with her life. She is getting older.”

Willett conveyed the message. She has remarried.

“Whatever you think about the human dimension of this,” says Willett, “the judicial dilemma of a federal court that has jurisdiction over a case—in which a person is held into his seventh year without lawful basis—and can give no remedy...that is an astonishing proposition. And it is a scary one.”

Parhat’s story is part of a much larger debate over how to fight an unconventional war against a largely invisible enemy who

uses terrorism as a tactic. As cases like Parhat’s wend their way through the U.S. courts, the argument over how to balance individual freedoms against collective security pits civil libertarians passionate about human rights against seasoned national-security advisers equally committed to thwarting the next attack. In the fight against terrorists, the U.S. government has snatched suspects off streets abroad, interrogated them using techniques America’s allies still define as torture, and attempted to hold them without charge and without judicial review. The parley involves acts of Congress, presidential war powers, and judicial protections of constitutional rights. Sovereignty and jurisdiction, the separation of powers, the rule of law, the role of detention, due process, and standards of evidence—all are at issue, with tangible implications for foreign and domestic policy.

This is not the first time the government has limited civil liberties in times of national emergency. There are precedents from the Civil War and World War II. Then, as now, habeas corpus, a guarantor of perhaps the most basic right of liberty in the Anglo-American legal tradition, has emerged as a fulcrum in the debate over where to draw the line.

## THE “GREAT WRIT”

HABEAS CORPUS IS AN ANCIENT REMEDY whose original purpose was to contest detention by the king. The origins of the writ, or “written order” (its Latin name means, loosely, “produce the body”), can be traced to thirteenth-century England. On

June 15, 1215, at Runnymede, in a meadow beside the Thames west of London, the English barons who had banded together to impose legal restrictions on the power of King John forced him to affix his seal to the Magna Carta. One of its curbs on the sovereign’s power reads, in part, “No free man shall be seized or imprisoned...except by the lawful judgment of his equals or by the law of the land.” This was the “Great Writ”—the ancestor of habeas corpus. Although other common-law writs were in force throughout the British empire, only the writ of habeas corpus appears in the United States Constitution. Article I, section 9, includes this single sentence: “The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.”

Habeas corpus requires a jailer to produce a prisoner in a court of law so the basis for detention can be reviewed. The Constitution presupposes this right, but its use has been sharply contested during previous wars.

In the post-9/11 era, does it even *apply* to Parhat and the other alleged terrorists held at Guantánamo? Does the writ run with U.S. territory, with citizenship, or with governmental power—wherever it reaches? Does it apply to prisoners of war? Are the detainees at Guantánamo POWs? How should they be treated? The answers affect the way Americans are perceived throughout the world—and the way Americans see themselves.

The Supreme Court

has called habeas corpus “the fundamental instrument for safeguarding individual freedom against arbitrary and lawless state action.” English history prior to the drafting of the Constitution affords some insight into the Framers’ understanding of the Great Writ; its use thereafter constitutes the American legal precedents. In a 2008 analysis of British and American “habeas” jurisprudence in the Colonial era, G. Edward White, J.D. ’70, a professor at the University of Virginia School of Law, and his colleague, Paul Halliday, conclude that judges were less concerned about whether a petitioner was physically in the country or abroad than whether he was held by “someone empowered to act in the name of the king.” The focus, in other words, was “more on the jailer, and less on the prisoner,” they write, more on the “authority of the sovereign’s officials” than on the “territory in which a prisoner was being held or the nationality status of the prisoner.” Even “alien enemies,” the subjects of a sovereign at war with Britain’s monarch, if “they were residents of, or came into, the king’s dominions” were allowed habeas review.

Their historical analysis concludes that “the jurisprudence of



Attorney P. Sabin Willett (center) briefs a congressional committee on the plight of the Uighurs imprisoned at Guantánamo Bay, November 24, 2008.

MARK WILSON/GETTY IMAGES

habeas corpus in England, its empire, and in America, is antithetical to the proposition that access to the courts to test the validity of confinement can be summarily determined by the authorities confining a prisoner. At a minimum," they write—extending the implications of their findings to the present day—"the history...suggests that there should be some opportunity for a judicial inquiry into the circumstances by which a Guantánamo Bay detainee was designated...eligible for indefinite confinement."

But in times of crisis, habeas review by the courts can be suspended. There have been only four such suspensions in U.S. history, says Story professor of law Daniel Meltzer: one in the Civil War; one during Reconstruction; one in the Philippines after the Spanish-American War; and one in Hawaii during World War II, after the bombing of Pearl Harbor. Of these, the suspension of habeas corpus by President Abraham Lincoln is perhaps the most interesting because he claimed authority that the Constitution appears to grant Congress.

The circumstances under which Lincoln acted on April 27, 1861, were dire. Virginia had just seceded, and Maryland's legislature seemed on the verge of following, threatening to cut Washington off from the North. Union reinforcements from Massachusetts who had been sent to protect the capital city were attacked by an angry mob as they passed through Baltimore. It was as clear a case of rebellion as one could imagine. Lincoln authorized one of his generals to suspend habeas corpus in the military district between Washington and Philadelphia.

To preserve the Union, the president probably broke the law. The "suspension clause," as the constitutional language regarding habeas corpus is sometimes called, appears in the part of the Constitution dealing with legislative, not executive, powers. It is phrased as a *limit* on suspension, Meltzer says, probably because in England, Parliament had a history of passing "acts which took away the power to provide the writ." In the United States, therefore, the Founders, "concerned about the threat to liberty that those practices posed...incorporated limits on the power to suspend the writ." In Meltzer's view, the evidence from English history, from the drafting of the Constitution, and from its final phrasing all suggest that only the legislature could suspend. "The core of the writ is to try to protect against executive detentions. As a matter of common sense," he points out, "the idea that the executive could be the one to suspend the writ that is designed to protect against executive overreaching—that's a little bit like foxes and chicken coops."



**THE LEXINGTON OF 1861.**

*The Massachusetts volunteers fighting their way through the streets of Baltimore, on their march to the defense of the National Capital, April 27, 1861. March for the Glorious 69.*

**President Abraham Lincoln suspended habeas corpus the week after a Union regiment from Massachusetts, sent to protect the capital city, was attacked by an angry mob in Baltimore.**

Lincoln famously defended his actions before Congress, arguing that he had acted out of necessity. "[A]re all the laws, but one, to go unexecuted and the Government itself go to pieces lest that one be violated?...would not the official oath be broken if the Government should be overthrown, when it was believed that disregarding the single law would tend to preserve it?" Lincoln went on to say that "as the provision was plainly made for a dangerous emergency, it cannot be believed the framers of the instrument in-

tended that in every case the danger should run its course until Congress could be called together, the very assembling of which might be prevented, as was intended in this case, by the rebellion." Crucially, Lincoln said of his actions that he trusted, "then as now, that Congress would readily ratify them."

As Daniel Farber of Berkeley's Boalt Hall School of Law writes in *Lincoln's Constitution*, "Lincoln was not arguing for legal power to take emergency actions contrary to statutory or constitutional mandates." Nor did he claim legal immunity. "Instead," writes Farber, "his argument fit well within the classic liberal view of emergency power. While unlawful, his actions could be ratified by Congress if it chose to do so." And that is what happened.

## THE "WAR ON TERROR"

THE PARALLELS TO TODAY center on the government's use of emergency executive power to detain prisoners captured in the armed conflict with al Qaeda. Because there was no rebellion or military invasion, neither President George W. Bush nor Congress invoked a constitutional right to suspend habeas corpus. Instead, the government sought to *prevent* habeas review by jailing prisoners beyond the jurisdiction of American courts.

"In the weeks after 9/11," recalls John Yoo '89, who was a deputy assistant attorney general, "lawyers at State, Defense, the White House, and the Justice Department formed an inter-agency task force to study the issues related to detention and trial of members of al Qaeda. The one thing we all agreed on was that any detention facility should be located outside the United States. We researched whether the courts would have jurisdiction over the facility. Standard civilian criminal courts might not even be able to handle the numbers of captured terrorists, overwhelming an already heavily burdened system. Furthermore, if federal courts took jurisdiction over POW camps, they might start to run them by their own lights, subordinating military needs and standards, and imposing the peacetime standards



# The Moral Case

MUCH OF THE DEBATE over the fate of the Guantánamo detainees has involved legal arguments that turn on habeas corpus or international treaties. But there are also ethical arguments bearing on the war on terror.

This intersection of ethics and legality is where Huzaifa Parhat and the other Uighurs who have been imprisoned at Guantánamo for the last seven years now find themselves. A Washington, D.C., community of Uighurs has offered to take them in. But the government continues to block their release, arguing that the judicial branch does not have the authority to let them enter the United States.

"This is a very poor argument," says legal philosopher Ronald Dworkin '53, LL.B. '57. He argues that Americans must do the *right* thing: "The courts must make plain our obligation to take people into America when, as in this case, we are responsible for their detention and they have no other genuine option." Comparing the U.S. response to terrorism with that of the United Kingdom and Israel, Dworkin suggests that in each case, it has ultimately been the courts that have been the best guardians of fundamental rights. "The U.K. was guilty of violations of human rights in its treatment of IRA prisoners, though the sensory deprivation and other tactics it used were not as bad as the undeniable torture the Bush administration deployed in interrogating terrorist suspects," he says. "Since 9/11, Britain has also attempted to hold terrorist suspects for lengthy terms without trial or charge. Israel, too, has violated basic rights in its fight against militant Palestinian

groups—destroying houses of relatives of suspected Arab terrorists, for example. In both cases, the judiciary—the British House of Lords and the Israeli Supreme Court—made brave decisions rejecting these methods, decisions that came to be accepted as right in time. Here, too, the Supreme Court has been, so far, a better guardian of our honor than the other branches. I don't think we should accept that we are weaker in our protection of basic rights than other nations. But it is part of our tradition that we are better—that we lead the way in taking rights seriously—so our failures are exercises in hypocrisy as well."

"The law is not exhaustive in its determination of what is right and wrong," assistant professor of law Gabriella Blum, LL.M. '01, S.J.D. '03, said at a recent Harvard Law School symposium on terrorism and civil liberties. "There are going to be cases where we all believe it is necessary to break the law," times when "this is what we would want the president to do." Lincoln's suspension of habeas corpus to preserve the Union was arguably such a moment. "And there are going to be cases when the law will allow us to do certain things that we will think about as immoral, irresponsible, and counterproductive."

Pulitzer Prize-winning journalist Anthony Lewis '48, NF '57, is deeply disturbed by the government's use of torture during interrogation—and by the lack of public outrage. Lewis cites cases: a 17-year-old Afghan subjected to the "frequent flyer" program of being moved every two hours to prevent sleep (the teen confessed to attacking U.S. forces only after the Afghan police threatened to kill his family if he did not); José Padilla, an American whom the government "held in solitary confinement and deprived of all sensory input until he went crazy"; and Moher Arar, a Canadian citizen who was on his way home from a family vacation in Tunis when the U.S. government detained him during a layover at John F. Kennedy Airport. "Acting on the basis of suspicion," says Lewis, "the government sent him to Syria to be tortured." After nearly a year of abuse, he was allowed to return home to Canada, where a government commission cleared him of ties to terrorism and gave him a \$10-million settlement. Arar is now suing the U.S. government over this rendition for the purpose of torture.

Two international treaties by which the United States has traditionally abided ban such prisoner mistreatment, as does the Uniform Code of Military Justice, which makes torture a crime. But what is morally right and legally defensible are not necessarily the same thing. Treaty obligations can be ducked, and military laws may be scuttled on direct orders from the president-as-commander-in-chief. "This undermines the rule of law," Lewis says, "and it demeans us as Americans."



Guantánamo detainees on their first day in prison, January 11, 2002

Former presidents' use of the base provided some guidance on whether the U.S. courts would have jurisdiction: "The first Bush and Clinton administrations had used Gitmo to hold Haitian refugees who sought to enter the United States illegally," Yoo says. "One case from that period had held that by landing at Gitmo, Haitians did not obtain federal rights that might preclude their [forcible] return. This suggested that the federal courts probably wouldn't consider Gitmo as falling within their habeas jurisdiction, which had in any event always, in the past, been understood to run only within the territorial United States." Keeping the prisoners at Guantánamo thus seemed to

with which they were most familiar. We were also strongly concerned about creating a target for another terrorist operation."

In this view, no location was perfect, says Yoo, now a law professor at Berkeley, "but the U.S. naval station at Guantánamo Bay, Cuba, seemed to fit the bill....Gitmo was well-defended, militarily secure, and far from any civilians."



preclude the possibility that they could seek habeas corpus review of their detention. As White and Halliday's 2008 analysis suggests, this view would prove controversial.

The fact that the United States is legally engaged in a continuing armed conflict for which the president was specifically granted war powers also had important ramifications for the prisoners. On September 14, 2001, Congress authorized the president to use all necessary and appropriate force against the persons, organizations, and states responsible for 9/11. During a war, prisoners are held not according to guilt or innocence, as in criminal cases, but as a practical matter: if released, they would likely resume the fight, so governments have traditionally detained enemy soldiers without charge until the hostilities end. (During World War II, notes Shattuck professor of law Jack Goldsmith, when "the United States held over 400,000 POWs in this country with no access to lawyers and no due-process rights," the power to detain was so uncontroversial that almost no one went to court. When one POW, an American citizen, filed a petition for habeas review, a lower court held that the

president was allowed during war to detain even an American citizen—without charging him with a crime or affording him a trial—because the man had been working for the enemy. "There was no doubt that he could go to court," says Goldsmith, "but it turned out that he had no rights. The court dismissed the habeas corpus petition.")

Goldsmith, who served as a U.S. assistant attorney general from 2003 to 2004, believes that authorizing a war against al Qaeda was the right thing to do because "military power has proven essential in hunting down" al Qaeda terrorists abroad. But with respect to "this non-criminal military detention power that we have used in every prior war," says Goldsmith, there are at least "two huge differences" that "make people skeptical."

"One is that this enemy does not distinguish itself from civilians," he says. During World War II, almost every enemy soldier was "caught in uniform wearing ID tags. There weren't any mistakes, and no one claimed that they were mistakenly detained that I know of," Goldsmith says. "But a lot of people think that these guys in Gitmo are innocent, because they were caught out of uniform. There is a big question about how you tell who is the



SHANE T. MCCOY/ASSOCIATED PRESS



LYNNE SLADKY/ASSOCIATED PRESS

**Top: A Guantánamo prisoner being taken to his cell, January 11, 2002. Above: A wounded prisoner captured in Afghanistan is wheeled on a stretcher to a military interrogation at Guantánamo, February 2, 2002.**

enemy." (Adds Meltzer, "We may need a more robust inquiry into the factual basis for detention when we are dealing with a situation in which the risk of error is considerably higher than in conventional wars.")

Compounding the problem, Goldsmith says, is that this war "has an indefinite duration. You might want to take the risk of mistakenly detaining someone for five years [the length of World War II] because you are always going to make mistakes. But there is a big difference if you think there is a higher likelihood of someone being innocent and being put away for the rest of their lives."

These factors, combined with radical changes in international notions of justice and human rights, Goldsmith says, make this "legitimate power to detain a member of the enemy" suddenly seem "illegitimate in this war."

Political support for expansive presidential emergency powers is also far less than it was during the Civil War or World War II, when presidents overstepped their constitutional authority but were forgiven. Partly, this is because after 9/11 the executive branch preferred to act unilaterally, often on the basis of legal opinions it kept se-

cret. Rather than consulting with other branches of government, requesting forbearance, or attempting to sway public opinion as Lincoln did, the Bush administration frequently, as Goldsmith puts it, "substituted legal analysis for political judgment."

At a February 2008 symposium called "Drawing the Line," Goldsmith (whose book *The Terror Presidency* provides an insider's view of Bush administration policies) and journalist Ron Suskind (whose book *The One Percent Doctrine* is deeply critical of those policies) painted similar pictures of what life has been like for high-ranking government insiders since 9/11. Every day, the president and other officials are handed a "threat matrix," often many dozens of pages long, listing the threats directed at the United States within the previous 24 hours. "On 9/11," says Goldsmith, "the president's and the public's perception of the threat was basically the same." But over time, the public's perception of the threat has waned, whereas what the president sees "would scare you to pieces."

Political leaders have made no serious effort to bridge the gap between these perspectives. And in the absence of winning words, government actions have eroded public support. The



treatment of the Guantánamo prisoners—denying the Geneva Convention protections legally extended to POWs on the one hand, while justifying indefinite detention on the basis of war powers on the other—whether legal or not, has led to charges of hypocrisy. The United States has argued that because al Qaeda fighters do not wear uniforms and do not obey the laws of war, they are not entitled to the protections normally accorded to POWs. That may be true, allows Pulitzer Prize-winning journalist Anthony Lewis '48, NF '57 (who has written books on constitutional issues and formerly wrote about them as an op-ed columnist for the *New York Times*), “but to extend this denial of POW status to the Taliban, which governed Afghanistan and with whom we are fighting a conventional war, as Bush has done, is complete nonsense.”

## THE COURT AND THE CONSTITUTION

SOON AFTER CONGRESS AUTHORIZED the use of force, U.S. courts began reviewing the legitimacy of military detentions, hearing habeas corpus petitions filed on behalf of prisoners held as “enemy combatants” who claimed that they were not members of al Qaeda or any other terrorist group. Among these was the case of Yaser Hamdi, an American citizen captured in Afghanistan in 2001 and turned over to U.S. military authorities there. Although initially detained at Guantánamo, he was moved to a military holding cell in Virginia when his U.S. citizenship was discovered. The government asserted its right to hold Hamdi as an unlawful combatant without right to an attorney and without judicial review.

“In retrospect,” says Goldsmith, “it would have been a lot better if the government had taken the opposite posture. The first argument that they made about habeas corpus was that Hamdi—a U.S. citizen held in the United States—basically didn’t have habeas corpus rights. Right out of the box, they wanted to get rid of all judicial review, even in the United States.”

When Hamdi’s father, Esam, filed a habeas petition on his son’s behalf, stating that Yaser was in Afghanistan as a relief worker, not fighting for the Taliban as the government alleged, a federal circuit court of appeals found that because he was captured in an active war zone, the president could detain him without a court hearing. But in June 2004, the Supreme Court held that the executive branch of government does not have the power to indefinitely detain a U.S. citizen without judicial review. Eight of the nine justices agreed that Hamdi not only had the right to be heard in court, he had additional due process rights as an American citizen under the Constitution. Justice Antonin Scalia, LL.B. ’60, posed the strongest consti-

tutional argument for limiting the executive power of detention under these circumstances. There were just two options, Scalia wrote: either suspend habeas corpus, as the Constitution allowed in the case of invasion or rebellion, or try Hamdi for treason, as described in Article 3, the Constitution’s section on judicial power.

Hamdi, who was released without a criminal trial on the condition that he renounce his U.S. citizenship, now lives in Saudi Arabia, where his parents moved when he was young.

In another ruling announced the same day, *Rasul v. Bush*, the Court found that U.S. control of the naval base at Guantánamo, leased from Cuba on a permanently renewable basis, was sufficiently complete that the base was effectively U.S. territory. This territorial interpretation extended the jurisdiction of the federal courts to Guantánamo, giving the foreign nationals held there a right under federal law (though not necessarily a constitutional right) to file habeas corpus petitions in U.S. courts.

But the Court did not say what sort of substantive rights the foreign prisoners would have once they got to court—what sort of evidence would be admissible, for example—instead suggesting that this was the sort of policy Congress could legislate.

## THE JUDICIAL DILEMMA: DEFERENCE OR CONSCIENCE

BESIDES ALLOWING REVIEW of the basis for detention, habeas corpus also gives courts the opportunity to assess the lawfulness of a prisoner’s treatment while being held. Such was the case in *Padilla v. Rumsfeld*, decided the same day as *Hamdi* and *Rasul*. José Padilla, an American citizen, was picked up at Chicago’s O’Hare Airport in 2002 on his return from Pakistan and accused of planning to detonate a radiological “dirty bomb” in an American city. President Bush ordered him held as an enemy combatant. Though the Supreme Court declined (on a technicality) to rule on the validity of Padilla’s military detention, the case became significant anyway. During arguments, Justice Ruth Bader Ginsburg, L ’59, asked what would happen if, in the course of a mili-

tary detention not subject to judicial review, the executive, not a mere soldier, decided that mild torture would be useful to extract information. Paul Clement, representing the government, responded, “Well our executive doesn’t, and I think, I mean....” Ginsburg pressed on: “What’s constraining? That’s the point. Is it just up to the goodwill of the executive, or is there any judicial check?”

Two days later, the revelations of abuse at Abu Ghraib became public. Eventually, it became clear that the government had condoned the use of coercive interrogation tech-



José Padilla, an American citizen accused of involvement in a “dirty bomb” plot against the United States, was held as an enemy combatant for 42 months—many of them in isolation—before being transferred to a civilian criminal court to face a different set of charges.

AP/GETTY IMAGES

niques—some of them considered torture under international law—against suspected terrorists, whether they were U.S. citizens or not. The aim was to garner “actionable intelligence” that might prevent another attack, and to force confessions that might be used in a military tribunal (even if they would be inadmissible in ordinary court). Jenny S. Martinez, J.D. ’97, an associate professor of law at Stanford University who is one of Padilla’s lawyers, says that he was among those subjected to years of isolation and mistreatment, and that he suffered serious harm as a consequence.

Historically, there has been a tradition of judicial deference to the executive branch during periods of crisis, says Watson professor of law Adrian Vermeule. In the Padilla case, the later decision of a three-judge panel of the U.S. Court of Appeals for the Fourth Circuit—that war powers gave the president the right to hold Padilla indefinitely—fit that pattern. But courts eventually begin to reassert their authority as crises pass, says Vermeule. The government, perhaps fearing that it might lose both the case and the precedent of a favorable ruling on a second appeal to the Supreme Court, dropped the charges against Padilla and indicted him in a civilian court on a completely different set of charges than those it had used to justify his 42-month military detention. This “game of bait and switch,” says Martinez, undermines the rule of law by allowing the government to avoid judicial review. (Padilla is now appealing in civilian court a conviction of conspiracy to commit jihad in Bosnia and Kosovo. No mention was made during his trial of a dirty-bomb plot against the United States.)

## CONGRESSIONAL INTERVENTION

THE SERIES OF SUPREME COURT RULINGS against the government in 2004 sent the message that if the president’s war policies were to continue, they would need statutory backing from new

mon Article 3 of the Geneva Convention. (Habeas corpus is the mechanism through which these rights can be invoked.)

Congress responded by passing the Military Commissions Act (MCA) of 2006, whose purpose was to put military-commission trials on a legal footing. But in addition to allowing use of hearsay evidence and other evidence not permissible in civilian trials, the MCA stripped Guantánamo prisoners of their *statutory* right to habeas review. The question remained, however, whether a *constitutional* right to habeas corpus extended to Guantánamo. In a landmark June 2008 case, *Boumediene v. Bush*, decided by a 5-4 margin, the Supreme Court found, as it had in *Rasul v. Bush*, that Guantánamo was effectively a territory of the United States. Even though the prisoners were not citizens, they had a constitutional right to habeas review.

Proponents of broad executive powers, including John Yoo, characterized decisions such as *Hamdan* and *Boumediene* as overreaching by the Court. Goldsmith says the *Boumediene* decision was “extraordinary in the sense that it was the first time in American history that a court had invalidated a wartime measure that Congress and the president agreed on during war.”

In order to reach that opinion, the Supreme Court had to find that the constitutional right to habeas corpus extends to Guantánamo, and that the *substance* of the habeas review protected by the Constitution was not being provided by some other means. Chief Justice John Roberts ’76, J.D. ’79, argued in his dissent that Congress had created a habeas-like system in the DTA, which allowed District of Columbia circuit courts to review the decisions of military tribunals. Agreeing with Roberts, Goldsmith says, “There is an important principle here that the Court should not unnecessarily reach out to strike down an act of Congress if there’s a way of upholding it.” But Neuman, who filed an amicus brief in the *Boumediene* case, says that to do that, the Supreme

Not since the United States fought the Barbary pirates in the early 1800s has the country faced an analogous situation, Heymann points out: waging a war, but not against a state.

congressional legislation. Armstrong professor of international, foreign, and comparative law Gerald L. Neuman says that even though holding or prosecuting terrorists may involve special difficulties that argue for judicial deference to executive actions, that “doesn’t mean the executive should be trusted to unilaterally resolve all the questions” surrounding terrorist detentions and trials. “Due process is a flexible concept,” he says, “that allows courts to account for individual and government interests alike in order to give people an opportunity to demonstrate their innocence without endangering national security. Executives should be getting Congress’s help,” he adds, “and courts need to be trusted to some degree.”

Congress attempted to legitimize the administration’s detention policies with the Detainee Treatment Act (DTA) of 2005, which condoned the use of military commissions to try subjects. But in *Hamdan v. Rumsfeld*, the Supreme Court found in a 5-3 decision that the commissions were unlawful because they did not follow the military’s own previously established rules. At a minimum, the Court said, the prisoners deserve rights under Com-

Court would have had to interpret the *intent* of the DTA as being the establishment of an adequate and effective habeas substitute, amounting to a “legal fiction that the statute meant something it couldn’t possibly mean.”

## DETENTION AND DEMOCRACY: A MIDDLE PATH

IN THE MEANTIME, “we still don’t have a system for dealing with these detainees,” Goldsmith points out. Current and former government officials, conservative and liberal alike, have suggested that the president-elect will need to work with Congress to create a legitimate detention policy to replace the system in place now: habeas review of military detentions. Any new policy would need to establish the legal basis for detention, because habeas corpus is a remedy that empowers a judge to release a person who has been *wrongfully* held, a determination that hinges on the legal basis of the imprisonment.

What the United States is now doing with its Guantánamo



prisoners, explains Ames professor of law Philip B. Heymann, constitutes a form of preventive detention. In criminal law, preventive detention provides the rationale for holding dangerous criminals pending trial, illegal immigrants pending deportation, sexual predators, and the criminally insane who are dangerous to themselves or others—akin to the wartime right to hold POWs to keep them from returning to the battlefield. But after 9/11, Heymann says, “[W]e invented a new category of detention [i.e., of unlawful enemy combatants] that didn’t have the protections built into peacetime detentions, such as periodic review by a judge, and that didn’t have the protections built into POW rights under the Third Geneva Convention.”

Not since the United States fought the Barbary pirates in the early 1800s has the country faced an analogous situation, he points out: waging a war, but not a civil war, and not against a state. “Most of the remaining Guantánamo detainees are being held on the basis of a law-of-war variation of alleged membership in a group—al Qaeda or its affiliates—that has been deemed dangerous”—historically, he says, one of the weakest justifications for holding someone. “A very high percentage of non-dangerous individuals were detained under this theory,” which is why the courts have demanded extensive habeas reviews of military detentions.

“Lawyers have not been inventive in dealing with the problem we face,” Heymann continues. “They’ve lined up largely as defenders of presidential power to protect us in a time of danger, or as defenders of the traditional Constitution and statutes. What we needed was a creative response.”

In 2004, Heymann met with then Attorney General Alberto Gonzales, J.D. ’82, and White House counsel Harriet Miers to try to persuade them that a novel detention policy should not be established by executive fiat—that instead there is a “democratic way, preserving the traditional separation of powers to arrive at a reasonable accommodation. Their reaction,” he says, “was, ‘We can do anything we want now. Why would we want to do that?’”

In the realm of possible remedies are three leading alternatives, each with its advocates. One is to use the existing criminal-justice system, with some modifications—including a delay of trial, pending a search for usable, unclassified evidence. A second would be to designate detainees as POWs with full Geneva Convention protections, but also to impose congressionally renewable time limits on detention, so that prisoners are not incarcer-



Philip B. Heymann

ated forever. And a third would create a new national security court with special procedures and its own standards of evidence for handling terror suspects. “We desperately need Congress to step up to the plate to design a program that will tell us who the enemy is, precisely, and what protections they get, and what this system should look like for legitimating these detentions,” Goldsmith says.

Heymann advocates use of the criminal law to handle terrorists. “Guantánamo is a big political problem, but only a small-scale detention problem” going forward, he says. Putting aside the 250 people who are there now, only about 10 new prisoners are sent to Guantánamo each year, he says; with such small numbers, the government could easily subject anybody it thought was a dangerous terrorist planning to attack the country to trial. “I think we can just skip Guantánamo completely, take him to any federal trial court, and either convict him or release him,” Heymann says.

This criminal approach faces one major hitch, he notes. In some of these cases, the government will pick up someone for whom the basis of detention cannot be revealed “without breaking a promise to a foreign country or endangering sources of evidence, whether it be the name of a spy or a classified electronic surveillance method.” For that type of case, Heymann advocates creating a new subcategory of *detention pending trial*. “I think we would have to delay the trial while we seek evidence that *can* be used against him. And if we can’t find usable evidence after some reasonable period of time, like three years, we’re going to have to deport him and release him.”

But if a criminal approach required detention for three years in some cases, as Heymann advocates, legal philosopher Ronald Dworkin ’53, LL.B. ’57, thinks it would be better “to designate those we want to hold for such a long period as POWs. That would make plain that they are entitled to the protections of the Geneva Convention, which are substantial....The difficulty is that POWs can be held until the end of ‘hostilities,’ and it is unclear what that means in the case of alleged terrorists,” says Dworkin, who has been a professor at Yale, Oxford, and University College London and is now a professor of philosophy and of law at New York University. “So I would prefer new legislation to specify a [time] limit, subject to renewal by fresh legislation, and to establish procedures for habeas review of the designation in accordance with *Boumediene*.”

(please turn to page 86)

# Frances Perkins

*Brief life of an ardent New Dealer: 1880-1965*

by ADAM S. COHEN

WHEN Franklin Delano Roosevelt, A.B. 1904, LL.D. '29, asked Frances Perkins to be his secretary of labor in 1932, she drove a hard bargain: she would accept only if he would support her social-justice agenda. Perkins wanted federal relief and large-scale public-works programs to help victims of the Depression, along with federal minimum-wage and maximum-hours laws, a ban on child labor, and unemployment and old-age insurance. These were ambitious goals for the time, but Roosevelt agreed. "I suppose you are going to nag me about this forever," he said. Perkins interpreted that response as an invitation. "He wanted his conscience kept for him by somebody," she later said—and she was unusually well-qualified for the job.

Perkins was born in Worcester, Massachusetts, and attended Mount Holyoke, majoring in chemistry and physics. (After years of touring factories and poring over technical reports, she reflected once that science courses "temper the human spirit, harden and refine it, make it a tool with which one may tackle any kind of material.") But it was a course in political economy that changed her life: sent into local mills to report on the lives of their workers, she realized that people could fall into poverty due to harsh circumstances, and not simply, as her conservative parents generally believed, because they were lazy or drunk. After graduation, she defied her father and became a social reformer. She moved to Chicago, to help Jane Addams minister to immigrants in Hull House, and then to Philadelphia, where her social-work duties included hanging out at the docks, rescuing newly arriving immigrant women before they could be lured into prostitution.

She next studied sociology and economics at Columbia and began working for the Consumers' League, an influential reform group. On March 25, 1911, as she was having tea at a friend's Greenwich Village townhouse, the butler mentioned a fire nearby. Perkins followed the sirens to the Triangle Shirtwaist factory inferno that killed 146 people, mostly immigrant women garment workers.

That disaster "was a torch that lighted up the whole industrial scene," she said later. As the Consumer League's factory-safety expert, she worked closely with the two committees set up to develop new standards to prevent future workplace fires. In 1918, Al Smith, who had been vice chair of one committee, was

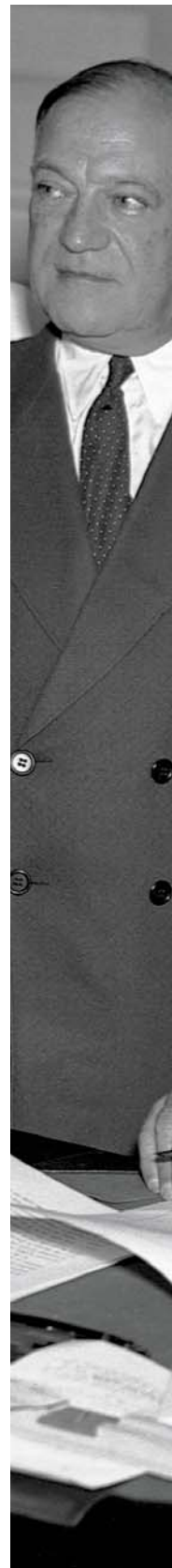
elected governor of New York and named Perkins to a powerful state labor board. When FDR succeeded Smith in 1929, he named her industrial commissioner—head of the entire state labor department.

Perkins was a strong advocate for working men and women, but had a light touch. Even "in her crusading days she never called names," a prominent journalist observed, "marching to her goals with a gay, disarming amiability that won over many an opponent."

When the stock market crashed and unemployment climbed beyond 20 percent, Perkins became the driving force behind the governor's Committee on Stabilization, which called for public-works programs because "The public conscience is not comfortable when good men anxious to work are unable to find employment." And when, thanks in good measure to his state's bold response to the Depression, FDR was elected president, he invited Perkins to join his cabinet. Women who had lobbied for the appointment begged her to become the first female cabinet member, but she hesitated, mainly because her husband, economist Paul Wilson, suffered from mental illness. Finally, with Roosevelt's promise in hand, she agreed.

Her role in the famous first 100 days has been underappreciated. She was the administration's strongest advocate for a federal relief program to help people who were, literally, on the brink of starvation. Roosevelt charged her with finding a plan, and she brought him what became the Federal Emergency Relief Act, the first federal welfare program. But her greatest achievement was persuading Roosevelt to support large-scale public works. He was skeptical, but Perkins and several progressive senators convinced him such a program was necessary to provide work for the jobless and stimulate the economy. Before the Hundred Days ended, Roosevelt pushed a \$3.3-billion program through Congress—as part of the National Industrial Recovery Act—that would evolve into larger efforts, notably the Works Progress Administration.

Perkins also chaired the Committee on Economic Security, which developed the Social Security Act that became law in 1935, and helped secure passage of the Fair Labor Standards Act, in 1938, which set the first federal minimum wage and banned products made by child labor from interstate commerce—her final major achievement. She faced more than a few setbacks as well: the war shifted attention from labor issues, and congressional conserva-







As U.S. Secretary of Labor, Perkins was present on August 14, 1935, when President Roosevelt signed the Social Security Act into law. Opposite: Earlier that year, she visited with steelworkers constructing the Golden Gate Bridge.

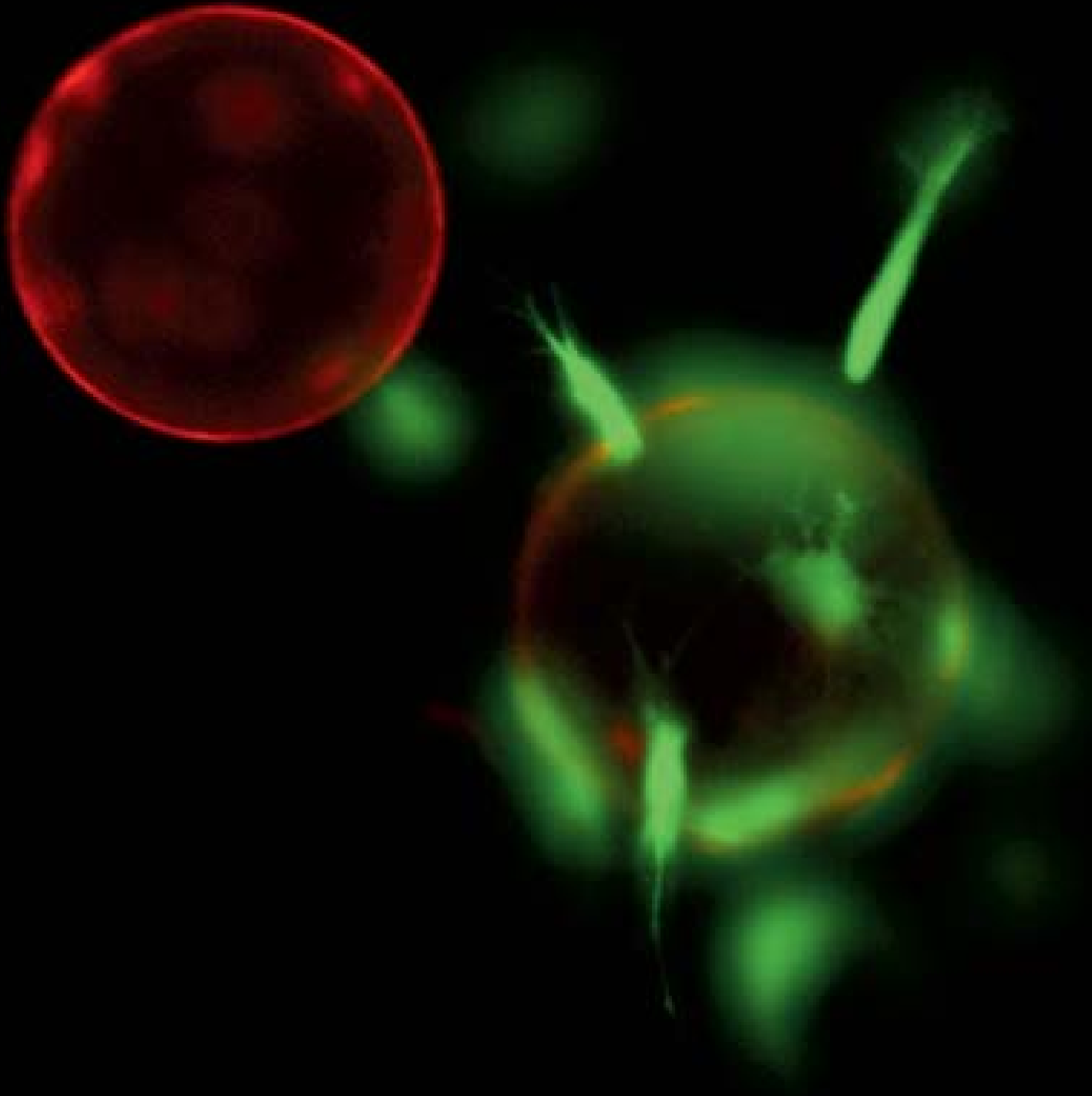
tives, judging her too soft on Communists in the labor movement, tried to impeach her. But Roosevelt stood by her. She was one of only two cabinet members who served throughout his presidency.

In 1944, as that service was drawing to a close, a profile in *Collier's* declared it "a major Washington mystery" that Perkins had "managed to hang onto her job..." Yet it also acknowledged that, 12 years after extracting FDR's promise to support her social agenda,

she had checked off every item. Despite her recent marginalization, it concluded: "what the country has been operating under...is not so much the Roosevelt New Deal as it is the Perkins New Deal." ▢

New York Times editorial board member Adam S. Cohen '84, J.D. '87, is the author of *Nothing to Fear: FDR's Inner Circle and the Hundred Days That Created Modern America*, just published by Penguin.

# LIFE SCIENCES, APPLIED





# At the forefront of bioengineering

BY COURTNEY HUMPHRIES

Portraits by Jim Harrison

Constructing an artificial liver. Altering bacteria to make hydrogen fuel directly from sunlight. Determining how the geometry of damaged heart cells leads to coronary disasters. Creating implantable devices that heal the body by retraining the behavior of cells. All of these projects are the domain of bioengineers, who work at the intersection of the study of life, medical science, and engineering.

Biology and engineering have traditionally represented completely different departments, fields, career paths—even philosophies. But of late, these pursuits have begun to merge in several different ways, making bioengineering one of the most exciting areas of contemporary science. At Harvard, bioengineering offers a chance to bring together the basic studies of life in the Faculty of Arts and Sciences (FAS), the technology-focused work at the School of Engineering and Applied Sciences (SEAS), and the clinically oriented biomedical research of Harvard Medical School (HMS) and its affiliated hospitals. To better position itself as a leader in this growing field, Harvard has been building such connections and recruiting faculty members whose work bridges biology, medicine, engineering, physics, materials science, chemistry, and computer science. Much of the push to expand bioengineering at Harvard comes from students who want to engage in science in a practical way.

In many cases, bioengineers bring not only new tools but a new perspective to traditional biology. “Engineering itself is defined as a field that solves problems,” says Pamela Silver, an HMS professor of systems biology. Traditional biology has emphasized understanding the causes and mechanisms of biological processes, but bioengineers put that knowledge to

practical use. Silver says there has been a growing feeling that scientists’ understanding of life, particularly the detailed molecular biology of cells, has progressed far enough that it can become an applied science. At the same time, new technologies and computing power make it possible to transform biology from a “soft” science focused on description to a “hard” science focused on quantifying, predicting, and controlling its properties.

Defining bioengineering can be a challenge because it encompasses a diverse group of research projects that spill across disciplines. In some cases, it involves engineering *for* biology: the development of new tools to assist biological science and medicine. This area has become particularly important with the rise of small-scale manufacturing and design that make it possible to design tiny devices for sequencing DNA or testing cells for responses to drugs. Another aspect of bioengineering is the engineering *of* biology. One of the most prominent examples is tissue engineering, which aims to create new tissues and organs outside the body to help patients. But bioengineers are not always working with a medical goal in mind; they also manipulate viruses, bacteria, plants, or animals to act as sensors, waste removal systems, or energy producers. And some bioengineers don’t manipulate living things at all, but use biology as an inspiration for designing new technologies, tools, and products. The following portraits of faculty members suggest some of the University’s growing engagement with bioengineering research.

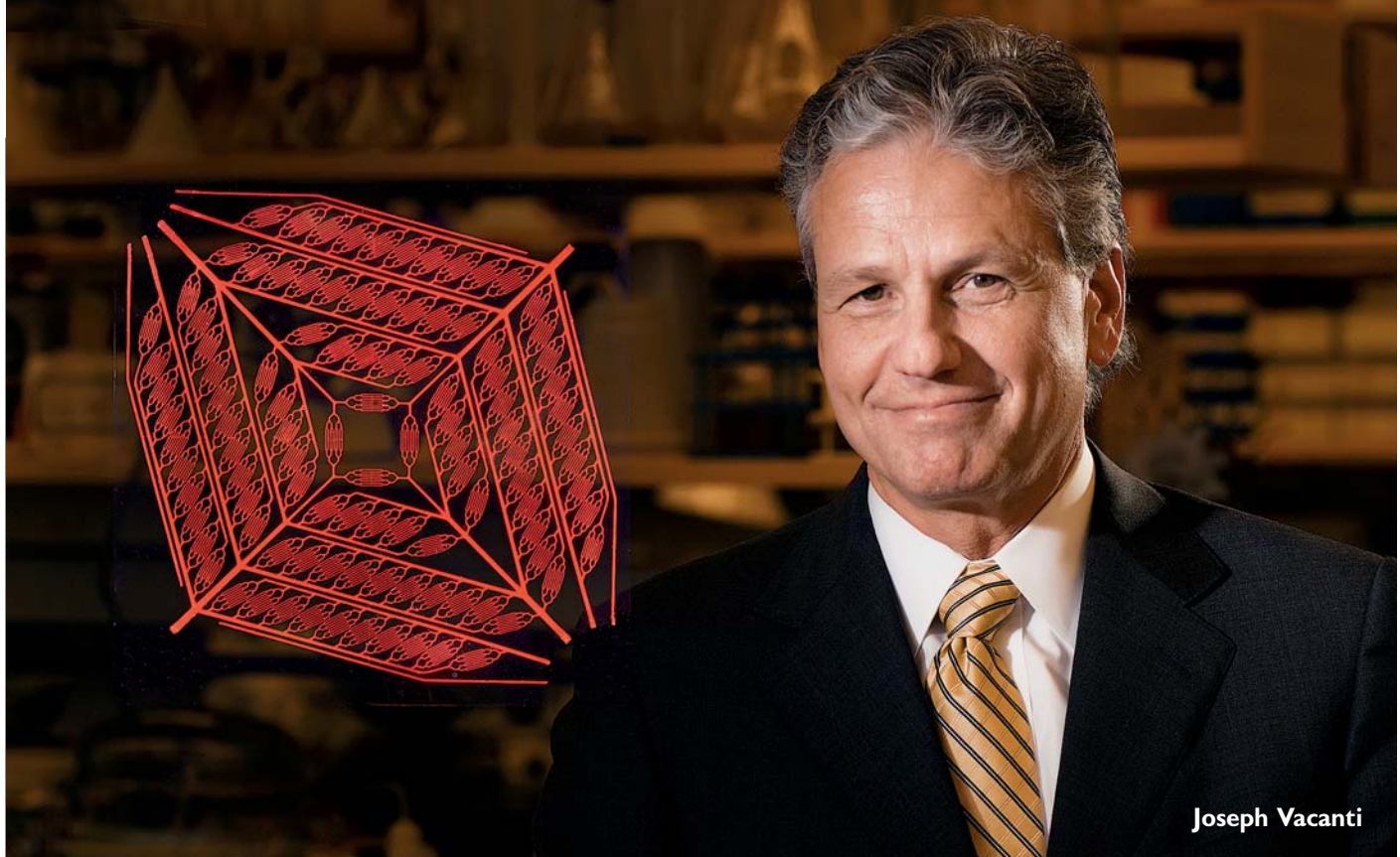
## RECREATING TISSUE

ONE OF THE BEST-KNOWN applications of engineering to biology is tissue engineering, in part because pioneering work by Joseph Vacanti and others helped bring its possibilities to public attention. Commercial interest is now rising, boosted by recent advances in manipulating stem cells and regenerating tissue.

During the past two decades, Vacanti’s lab at Massachusetts General Hospital has demonstrated the possibilities of growing tissue outside the body—such as a startling image of a human ear grown on a mouse’s back. Vacanti, who is Homans professor of surgery, got into bioengineering to solve a practical problem that he faced as a young physician specializing in liver transplants: a shortage of available organs from donors. His perspective as a surgeon is aligned with that of an engineer; rather than seeking to unravel all the intricacies of biology, he wanted to find solutions to problems that directly affect patients. But the “simple” goal he pursued—to grow new livers—quickly led to some complex biological problems.

Vacanti credits his direction in tissue engineering to his collaboration, begun 20 years ago, with two other pioneers in biology: the late Judah Folkman, Andrus professor of pediatric surgery and professor of cell biology, a clinician-scientist who launched the study of angiogenesis (the growth of new blood vessels); and Robert Langer, professor of chemical and biomedical engineering at MIT. At the time, scientists could grow cells outside the body, but they amounted to tiny islands of tissue, far short of a functioning organ. The central problem of tissue engineering was clearly one of scale, or, in Vacanti’s words, “How do you make living structures that not only work, but are large enough to help a human?” Multicellular organisms all face a fundamental problem: every single cell needs a supply of nutrients—including oxygen for animal cells and carbon dioxide for plants—and a way of expelling subsequent waste products. “Na-

EDUARDO SILVA



Joseph Vacanti

Vacanti envisions creating scaffolds and vessels out of biodegradable materials that disintegrate in the body after cells populate them, leaving functioning organ tissue behind.

ture's solution to that is the design of the vascular circulation," he says. All multicellular organisms have the same basic vascular design, which involves branching into smaller and smaller scales until each cell is in contact with a vessel that carries nutrients in and out.

"Intrinsic to the solution of scale is the vasculature," Vacanti says. Building on Folkman's work, Vacanti and Langer both decided that the key was creating blood vessels in engineered tissue. But growing blood vessels to feed cells takes time, and in the interim cells need an artificial vasculature.

In Vacanti's office, he holds one example of this principle in the flesh—or rather in the plastic: a whitish polymer dish a few inches square that has had channels as thin as capillaries carved into it by a microfabrication technique similar to those developed for computer chips. The channels are specifically designed to recreate the pressure and flow of a normal vascular bed. Below them is a porous membrane; liver cells can be grown on the other side of the membrane and will then interact with blood flowing through the membrane as they would with normal capillaries. This dish can feed only a sheet of cells, but by stacking multiple dishes together, it's possible to create something that functions like an organ.

The stack of plastic squares looks very different from the ultimate goal of a liver on demand, but it's a first step. "Along the way, we decided we might be able to help patients with an implantable assist device," even if it didn't look like a real organ, Vacanti says. He and colleagues now hold a patent on their channeled vasculature design. Ultimately, though, he envisions creating scaffolds and vessels out of biodegradable materials that

disintegrate in the body after cells populate them, leaving functioning organ tissue behind.

Although initially interested in livers, Vacanti has chosen not to focus on a particular organ, but rather to demonstrate broad principles in several different kinds of tissues. His lab has made achievements in heart, brain, bone, and cartilage tissues as well—demonstrating how tissue-engineering approaches could help diverse patients and different diseases. Though he's a bit bemused when students refer to his early papers as "classical tissue engineering," Vacanti's work has pointed the way toward fresh thinking about how artificial materials can interact with cells.

## REBUILDING LIFE

PAMELA SILVER HAS BEEN a leader in the emerging field of synthetic biology, which aims to understand how biological systems are designed in order to apply that knowledge toward redesigning those systems or creating artificial cells and organisms. It offers a new way of using all the detailed knowledge about molecules and cells that biologists have amassed over the past decades: not just to understand life better, but to find ways to put biological components to work for us. Silver says that one of her primary goals is "to make the engineering of biology easier." Thus her work often focuses on the basic steps needed to manipulate a cell or a system, steps that could be applied for many different purposes.

One of Silver's major questions is: "Can we engineer cells that will act like computers, that will tell us things?" Her team is working to engineer cells that can relay information about whether they have been exposed to a particular drug or signal,

*Above: Joseph Vacanti and a network of channels designed to carry blood to a tissue-engineered organ, such as a liver. On the previous spread: The sprouting of a human endothelial cell (green) marks the first moments of capillary formation, as seen in this three-dimensional model of angiogenesis created in David Mooney's lab.*



# Engineering Bioengineering

AS HARVARD pursues a broad program of bioengineering research and teaching, one element—based on deciphering life forms and processes, and making novel uses of the discoveries—has made a major advance. On October 7, the University announced that Hansjörg Wyss, M.B.A. '65, has given Harvard \$125 million—the largest donation in its history—for work in “biologically inspired” engineering. A Harvard Institute for Biologically Inspired Engineering ([www.hibie.harvard.edu](http://www.hibie.harvard.edu)) had already been established in anticipation of Wyss's support; it will be renamed in his honor.

The official gift announcement (Wyss chose not to publicize it himself) says it is intended to “uncover the engineering principles that govern living things, and use this knowledge to develop technology solutions for the most pressing healthcare and environmental issues facing humanity.” President Drew Faust hailed it as “a transformational investment in powerful, collaborative science.”

The interdisciplinary research program (expected to involve “experimentalists,

theoreticians, and clinicians with expertise in engineering, biology, chemistry, physics, mathematics, computer science, robotics, medicine, and surgery from Harvard's schools and affiliated hospitals, as well as from neighboring universities”) will be directed by Donald E. Ingber, Folkman professor of vascular biology at Harvard Medical School (HMS) and pro-

fessor of bioengineering in the School of Engineering and Applied Sciences (SEAS). According to Provost Steven E. Hyman, who was interviewed about the announcement, Ingber and McKay professor of bioengineering David J. Mooney led the academic planning within and beyond Harvard that underpins the new institute.

Hyman said that Wyss, who became president of the U.S. division of Synthes in 1977 and drove the company to global leadership as a manufacturer of medical and surgical devices during the ensuing 30 years (he stepped down as CEO in 2007),

had “served a role that was unusually positive and inspiring” in shaping the new program. The provost noted that the University had not been particularly engaged in an earlier wave of biomedical engineering. But now, at an “inflection point” where biological science, genetics, information technology, nanomaterials, and other developments in engineering have progressed, Harvard is in a position to combine and augment its strengths in diverse disciplines to pursue a much broader agenda.

Ingber's work is representative of such opportunities. His laboratory webpage, at Children's Hospital, describes research into how the “process of tissue construction may be regulated mechanically” using techniques from “molecular cell biology, mechanical engineering, physics, chemistry, and computer science.” Focusing on how blood vessels form, he has made discoveries in “angiogenesis, tissue engineering,

mechanobiology, and systems biology,” resulting in credit on patents involving everything from drugs to micro-manufacturing techniques and software.

Harvard's wider interest in bioengineering was most recently articulated in a strategy paper, “Engineering Biology for the 21st Century,” prepared for SEAS and HMS (<http://hms.harvard.edu/public/strategy/Bioengineer.pdf>). The faculty committee responsible was directed by Joanna Aizenberg, McKay professor of materials science, professor of chemistry and chemical biology, and Wallach professor at Radcliffe, and Pamela Silver, professor of systems biology (see “Seeing Biological Systems Whole,” March-April 2005, page 67). That report envisioned “a focal point of pedagogy and collaborative and translational research”—involving the schools of engineering, medicine, law, business, and public health and engaging problems such as bioenergy (using photosynthesis to cap-

ture and store energy); water purification; food supply; and healthcare.

This Harvard University Bioengineering (HUB) program, its authors hoped, would have a minimum of 20 new faculty positions. Importantly, the initiative embraces both research and education—with both

an undergraduate concentration and a graduate curriculum—much as the systems-biology program has evolved in recent years. Full implementation awaits the appointment of a permanent SEAS dean; in the meantime, HIBIE's initial focus—now carried over to

the Wyss Institute—is on synthetic biology, living materials, and biological control.

As an element in this broader bioengineering initiative, the Wyss gift jump-starts research and faculty recruiting (the funds will endow seven new positions and the costs of fitting up labs), with Harvard responsible for administrative and facility costs. By providing a core of instruments and facilities for diverse experiments, the Wyss Institute aims to support basic science, clinical research, and collaborations with industry to commercialize products.

Hyman was particularly excited about siting the Wyss Institute alongside Harvard's efforts in stem-cell science, regenerative medicine, and systems biology—all slated for the new laboratory building now under construction in Allston. There, he said, new work on synthetic biology and on “rebooting or reprogramming cells to deliver therapies” may advance rapidly as scientists interact: “That exactly fits where we want to go.”

The bulk of the Wyss gift is meant to be “spent down” in five years, in pursuit of the research agenda. The hope, the provost said, is that investigators will also be able to secure federal grants for their research—and that the progress will be sufficient to engage Wyss in further support.

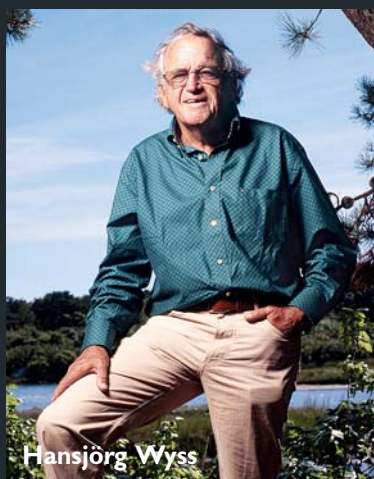
The Wyss-funded professorships will obviously advance Harvard's teaching capacity in bioengineering, Hyman said, but more professors will be needed to fulfill HUB's ambition to launch a full undergraduate concentration. Thus, in educational terms, Hyman said, the Wyss gift “is a beginning, not the end.”

—J.S.R.



Donald E. Ingber

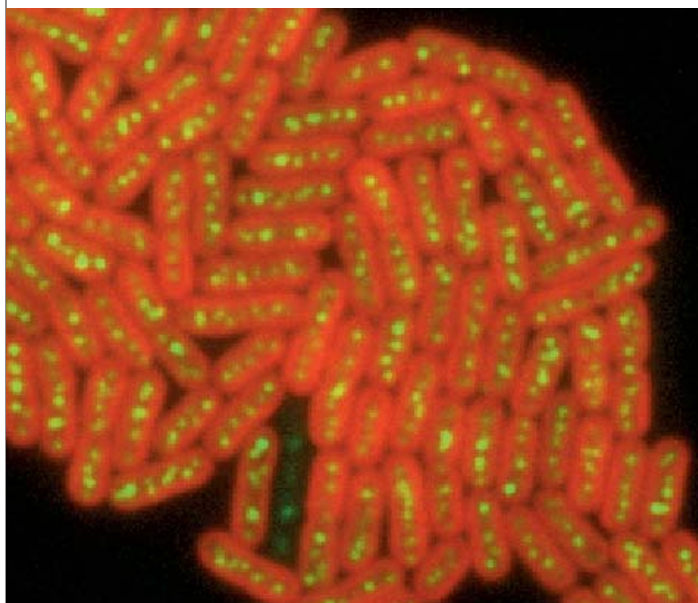
KRISTIN JOHNSON



Hansjörg Wyss

WEBB CHAPPEL

when the exposure occurred, and for how long. As a first step, they created a simple “memory device” and inserted it into yeast cells (and later the cells of mammals), where it reported whether they had sensed a particular signal of interest—sugar in yeast, or a drug in mammalian cells. The device is based on a common phenomenon in biology called a positive feedback loop. The signal of interest activates a protein in the cell, which in turn activates another protein that is capable of turning itself on indefinitely. When the signal disappears, this second protein remains active as a record of the past exposure. Ideally, Silver would like to engineer cells that can provide information about their exposures to DNA damage, drugs, or hormones, and could be used in the laboratory or even implanted in the body as biological sensors. (Her lab also works to engineer individual proteins with the goal of creating better drugs—for instance, by using a knowledge of the biophysics of proteins to modify cancer drugs so that they target tumors without damaging normal cells.)



DAVE SAVAGE AND PAMELA SILVER

Synthetic biology can extend from proteins and cells to entire organisms. Plants have long been one of the most attractive subjects for genetic engineering: among the results are organisms that resist droughts, yield larger crops, or serve as sentinels for disturbances or toxins in the environment. One of Silver’s newest interests is using microorganisms to create biofuels that would reduce dependence on fossil fuels. Her lab is now investigating ways to engineer organisms to produce an element that would be useful for fuel, such as hydrogen. They first engineered yeast that can transform biomass into hydrogen, but Silver says, “The real home run would be to get rid of the biomass in the equation and go directly from sunlight to hydrogen.” Her lab is focusing on photosynthetic bacteria, which use sunlight for their own energy. By redesigning bacteria to produce hydrogen or other useful elements from the sunlight, she would like to turn them into “living solar panels.”

Can biology be designed and engineered as easily as computer chips, and can parts of cells or molecules be shuffled around like parts of a machine? Silver’s reference to computers and devices is no accident; synthetic biologists often embrace the language of machines and computer technology. “Some peo-

ple will say it’s the wrong metaphor,” she says. “I think it’s worth testing.”

## AN ENGINEER’S VIEW OF HEART DISEASE

KIT PARKER’S WORK illustrates how an engineering approach can add a new perspective to biology. Parker, an associate professor of biomedical engineering, focuses much of his research on the structure and function of the heart and how it goes awry in disease. The normal function of the heart relies on several different events: chemical signals within and between cells, electrical pulses of the heartbeat, the mechanical forces of muscle cells as they force blood through the heart.

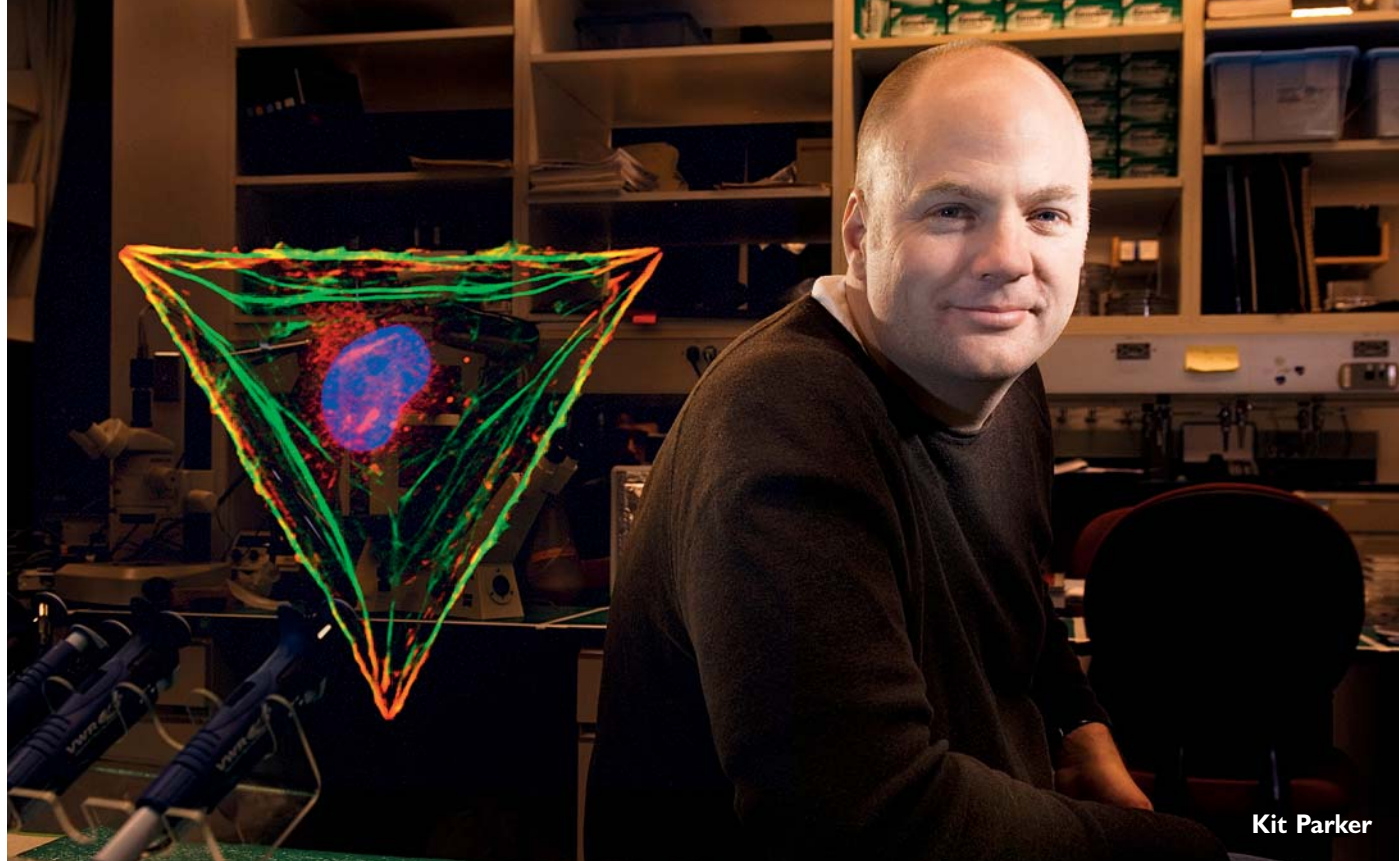
But rather than viewing disease in terms of genetics or electrophysiology or mechanics, Parker, a physicist by training, sees it as a problem of scale. He explains that events in the heart can happen on different spatial scales, “from protein ensembles on the nanometer level to the whole cardiovascular system, which is on a meter-length scale. That’s nine orders of spatial magnitude.” At the same time, he says, “a protein goes through conformational changes on a nanosecond scale, but people die from ventricular fibrillation in a few seconds. That’s nine orders of temporal magnitude.”

Biology has typically had a much easier time focusing on one scale, rather than drawing connections between scales. But Parker points out that disease doesn’t arise from a single protein or a single cell; instead, it emerges from many small-scale changes. “The question is, what’s the lowest possible level that you can identify disease?” he asks. “And as a biomedical community, are we designing our therapeutics to target that particular spatial scale?” (An inspiration for Parker’s approach was the spectacular failure in the late 1980s of a clinical trial to treat irregular heartbeats with drugs that targeted cell chemistry; the trial was shut down after the drugs led to increased deaths among patients. Underlying the failure of anti-arrhythmia drugs, Parker believes, is an inability to understand how the rapid chemical interactions in heart cells affect the electrical and mechanical forces that control the heartbeat. One of his primary focuses has been to connect the dots between these different events.)

In related research, a team from Parker’s lab, led by Po-Ling Kuo, now an assistant professor of electrical engineering at National Taiwan University, has used a multiscale approach to solve a riddle about the shape of heart muscle cells (cardiomyocytes). Parker explains that pathologists who first compared hearts from people with and without heart disease found that normal heart cells look roughly like oblong cylinders. In hearts that had become thickened because of maladaptive growth, the cells were a shorter, fatter cylinder; those from enlarged hearts had cells that were longer and skinnier. Parker’s group found that “there’s this sweet spot, an optimal shape to get the maximum contraction from a cardiomyocyte.”

Parker encourages his team to apply tools and knowledge from different fields to a problem, rather than forming questions around the technologies at hand. In this case, the researchers used software originally developed to analyze fingerprints to study what was happening at the molecular level in cells. They found that when the overall shape of the cell changes, tiny protein motors responsible for muscle contraction get misaligned. “It’s a stunning thing,” Parker says. “It shows that on the whole organism level, you’re going to die of heart failure because you’ve





Kit Parker

"It's a stunning thing. On the whole organism level, you're going to die of heart failure because you've got a nanometer or micrometer architectural problem inside the cells of your heart."

got a nanometer or micrometer architectural problem inside the cells of your heart."

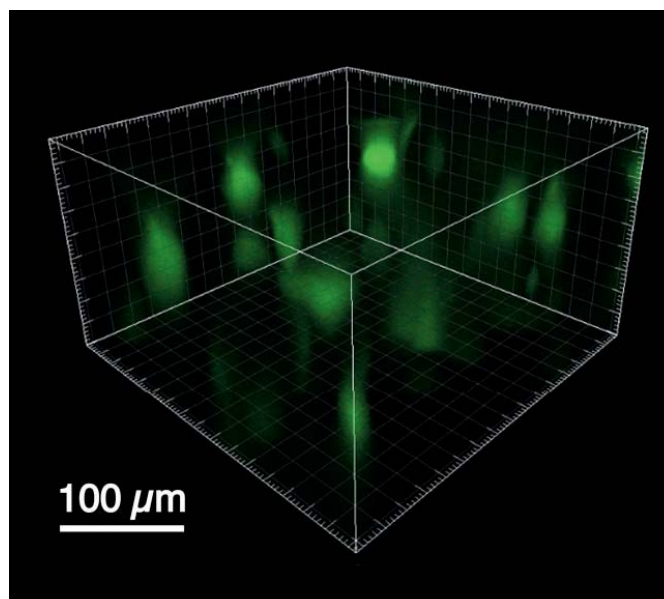
## MASTERING CELLS

BIOLOGISTS TEND TO FOCUS ON understanding biological processes, but this understanding doesn't necessarily translate into ways to control disease or repair physical defects. McKay professor of bioengineering David Mooney sees his field as a critical link between traditional biology and new medical advances. Consider the wealth of research during the past two decades that has shown that tumors depend on angiogenesis for their survival, and that blood vessels are critical for growing artificial tissue to repair injured and diseased organs. These discoveries have led to interest in shrinking blood vessels in cancers and promoting their growth in transplanted and engineered tissues. What is often missing, Mooney says, is a systematic study of what chemical or physical factors are needed, in what amounts, and when, to influence the process in a predictable way. "In biology, there's a real emphasis on discovery," he says, "not an emphasis on controlling what's happening."

So Mooney is working to "design materials that can communicate with the cells in the body and control them." Unlike Vacanti, whose goal is to engineer therapies that can be introduced into patients as soon as possible, Mooney focuses on pursuing new ideas in tissue engineering that may take many years to realize. An example is the use of stem cells to replenish tissues. Scientists have discovered chemical factors that control how stem cells mature into specific cell types, but they have struggled to

use that knowledge to manipulate stem cells predictably. Mooney's lab works to determine how much of a particular factor is needed, in what location, and when.

The goal is to use this information to create materials and devices that mimic the natural environment of the cell. "Cells actively probe, push, and pull on their environment to understand their surroundings," he says. Tissue engineering often involves growing cells outside the body on artificial scaffolds that imitate the physical properties of tissues. Mooney would like to make



Prakriti Tayalia, David Mooney, and Eric Mazur

Above: Kit Parker with a cell confined to a triangle (the nucleus and other parts are stained for identification). His lab patterns individual cells onto various shapes to learn how micro-architecture affects a cell's mechanical properties. Right: Cells (green) within a three-dimensional structured polymer. Prakriti Tayalia, mentored by professors David Mooney and Eric Mazur, uses confocal microscopy to show cell infiltration and adhesion in this engineered scaffold.

“smart” scaffolds that can communicate chemically as well as physically with cells and release their chemical signals in a controlled fashion over time.

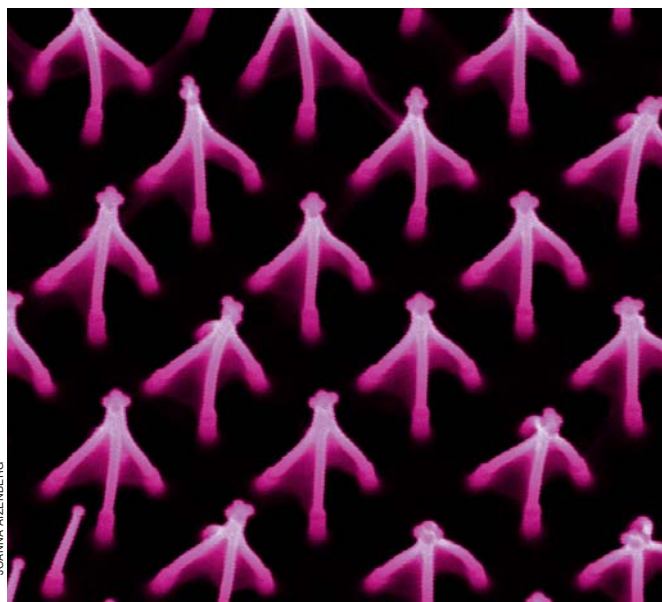
Ideally, he says, cell- and tissue-based therapies shouldn't necessarily have to rely on implanting cells grown outside the body: it may be possible to control the cells already there. Mooney believes that scientists could create an environment inside the body that promotes cell regeneration or encourages cells to reverse disease. For instance, many cancer scientists are looking for ways to develop a cancer vaccine that could stimulate the immune system to destroy a tumor. Mooney imagines that one could implant a device that can “teach” existing cells to act against tumors—first by attracting immune cells and then secreting signals that cause them to attack cancer cells in the body.

Although biology may have the reputation of being “messy” and difficult to control, Mooney says that it also offers advantages for engineers. “Another way to think of it is that biology tends to be quite robust,” he says. “It has the ability to get to certain endpoints even if there are bumps and noise along the way. The key is to work with that, not against it.”

## MIMICKING LIFE'S DESIGNS

ALTHOUGH MANY BIOENGINEERS use tools of engineering to manipulate living things, Joanna Aizenberg, McKay professor of materials science, works in the reverse direction: she uses biology as an inspiration for engineering new artificial materials. Aizenberg (who is also Wallach professor at the Radcliffe Institute and professor of chemistry and chemical biology; see “Portrait,” July-August 2008, page 59) came to Harvard a little more than a year ago from Bell Labs, where she had developed materials and devices inspired by creatures such as brittle stars (a close relative of starfish), which are covered in a sophisticated array of tiny lenses.

This offshoot of bioengineering—often called biomimetics or bio-inspired design—sees biology as a source of creative ideas. “Through evolution, nature created very sophisticated solutions to complex problems,” Aizenberg explains. These solutions can be found simply by observing the structures washed up on a beach, something she does regularly. As a materials scientist and a chemist, she finds much to admire.



JOANNA AIZENBERG

As an example, Aizenberg holds up a long, slender tube: the skeleton of a sea sponge. Though made of a seemingly delicate white lattice of glass, the skeleton is surprisingly strong and rigid. Aizenberg wants to build something with similar properties; she next holds up two cylinders made of orange plastic. One has a lattice of open squares, while the other has a more complicated crossed lattice similar to the sponge's. The more intricate one is far more rigid than the simpler design. Part of her work is to identify which properties give natural structures an advantage—whether it is the materials or their structure—and incorporate those properties into artificial materials and structures.

Though many of her projects have focused on mineralized tissues like the sponge skeleton and the brittle star lenses, Aizenberg's newest interest is cilia: hair-like structures that have a variety of roles in many organisms. Hair cells on the outside of an organism can serve as sensors; sea animals can use them to navigate in deep waters even if they can't see. Within the body, they can help to channel the direction of fluid flow—for example, in blood vessels. The proper movement of fluid by cilia even ensures that our bodies develop the proper left-right symmetry in the womb. Aizenberg believes that cilia-like structures could help solve several engineering problems—for instance, improving the flow of fluid through narrow channels in small devices. Microfluidics—in which fluids are manipulated within areas of a millimeter or less—is a growing field in biotechnology, but moving fluids through increasingly small spaces is challenging. “If we can make channels or pipes with these hairy walls, similar to ciliated walls,” she says, “we can decrease the pressure and therefore the energy needed to push liquids in microchannels, or reduce drag in pipelines.” (Although one might assume that the presence of hair-like projections in a channel would obstruct flow, in fact they repel water so well they actually help speed flow along.)

Aizenberg's team is currently developing a “nanofur” with hair-like projections that change properties in response to humidity: attracting water when dry and repelling it when wet. The ability to change in response to the environment is one of the properties that make biological materials more useful than artificial ones.

Aizenberg believes that students are attracted to biomimetics because it lets them study nature in a way that benefits real-world problems. It also draws together people from different disciplines, blending knowledge of biology with physics, chemistry, materials science, mathematics—Aizenberg has even worked with archaeologists. “Almost anyone can contribute to it in one way or another,” she says.

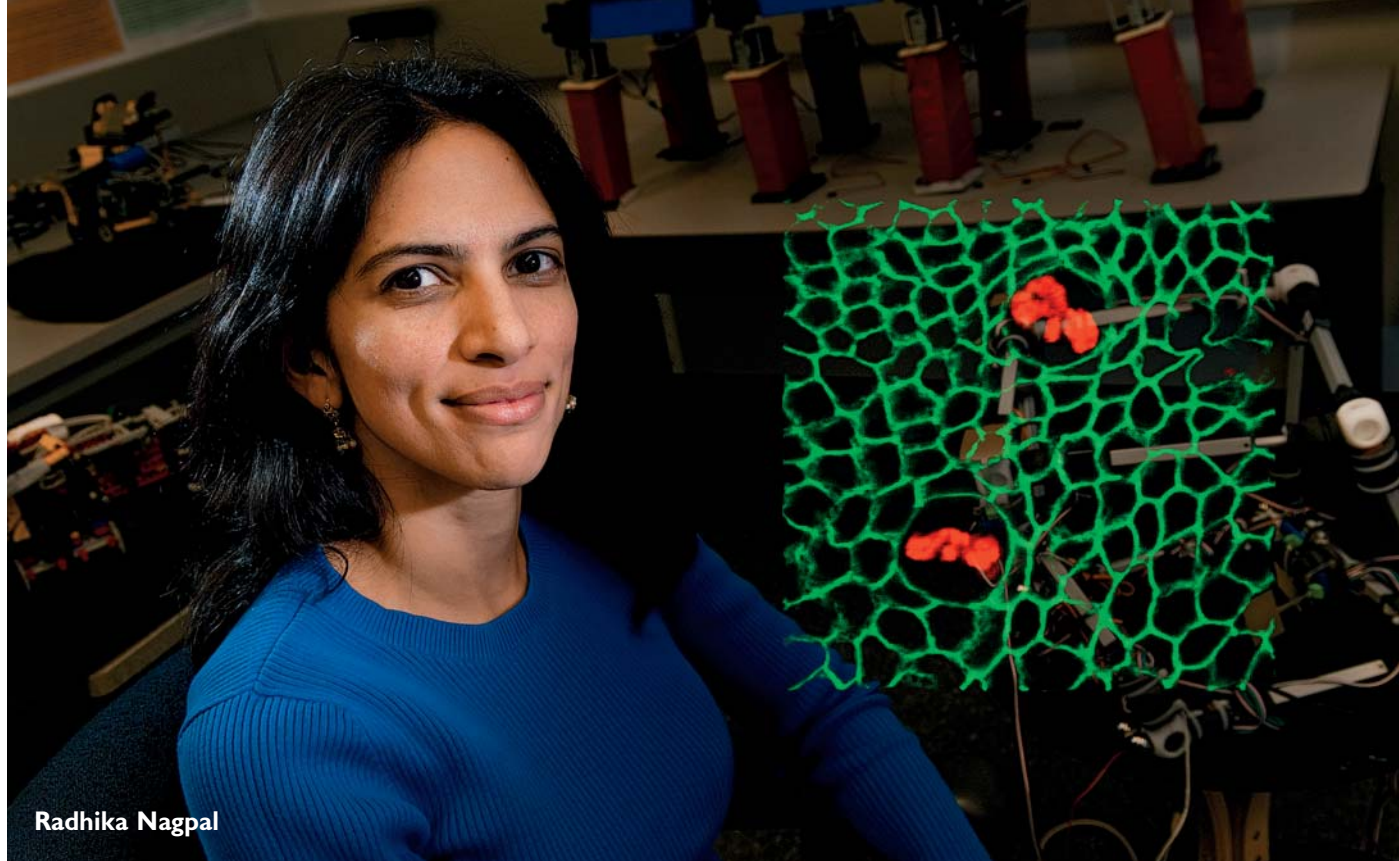
## PROGRAMMING LIFELIKE BEHAVIOR

ASSISTANT PROFESSOR of computer science Radhika Nagpal also finds inspiration in biology. In particular, she is interested in the complex harmony of biological systems, such as the cells of the heart beating in synchrony or ants cooperating as a unit to achieve a collective task. “You cannot destroy a colony by stepping on a few ants,” she says. “Can we build systems that have that kind of robustness?” Many biological processes rely on coordinated activities among independent individuals acting without a distinct hierarchy or central command; Nagpal believes that computer science has much to learn from this bottom-up approach.

She works with biologists such as Donald Ingber, Folkman pro-

*Like tiny flowers, micro-florets created in Joanna Aizenberg's lab open and close in response to changes in environmental moisture. These structures, their action controlled by a hydrogel “muscle,” can be used to catch and release tiny particles.*





Radhika Nagpal

## These principles could be used to build structures that actively respond to their environment, such as a bridge that keeps itself level.

fessor of vascular biology and of bioengineering, to understand living processes and then looks for ways to apply those guiding principles to the design of computer systems and programmable structures that have properties of living organisms—such as sensing their environment and adapting to it or repairing themselves.

Robotics is an ideal area for creating artificial systems that mimic biological behaviors. Nagpal programs modular robots to work together to imitate the organization of groups of cells and organisms in biology. She says that many different coordinated processes in nature rely on similar principles; the individuals must be able to come to an agreement based on what those around them are doing. “They’re trying to create homeostasis,” she says.

She and her lab members have used these principles to program modular robots to solve problems. In one example, a student constructed a table that keeps itself level, even when it is placed on uneven surfaces, by means of cooperation among its separate components. In another, a line of small robots, linked together, are able to grasp a balloon gently by coordinating their movements and pressure. The same principles could be used to build structures that actively respond to their environment, such as a bridge that keeps itself level or a structural support that becomes stronger in response to greater pressure. Nagpal has used similar algorithms to help networked computers keep the same time, and thinks that such techniques could also help computers schedule tasks and relay information over networks more efficiently.

On a smaller scale, Nagpal imagines stents that can adjust their pressure against the wall of an artery. The design of small-scale programmable materials and devices is becoming more feasible as engineers combine tiny sensors and actuators—compo-

nents that perform actions like shrinking, rotating, or hinging. Tiny technologies like these underlie small devices that sense their environment and respond with appropriate behaviors, such as filaments that shrink in unison, just as muscle cells contract.

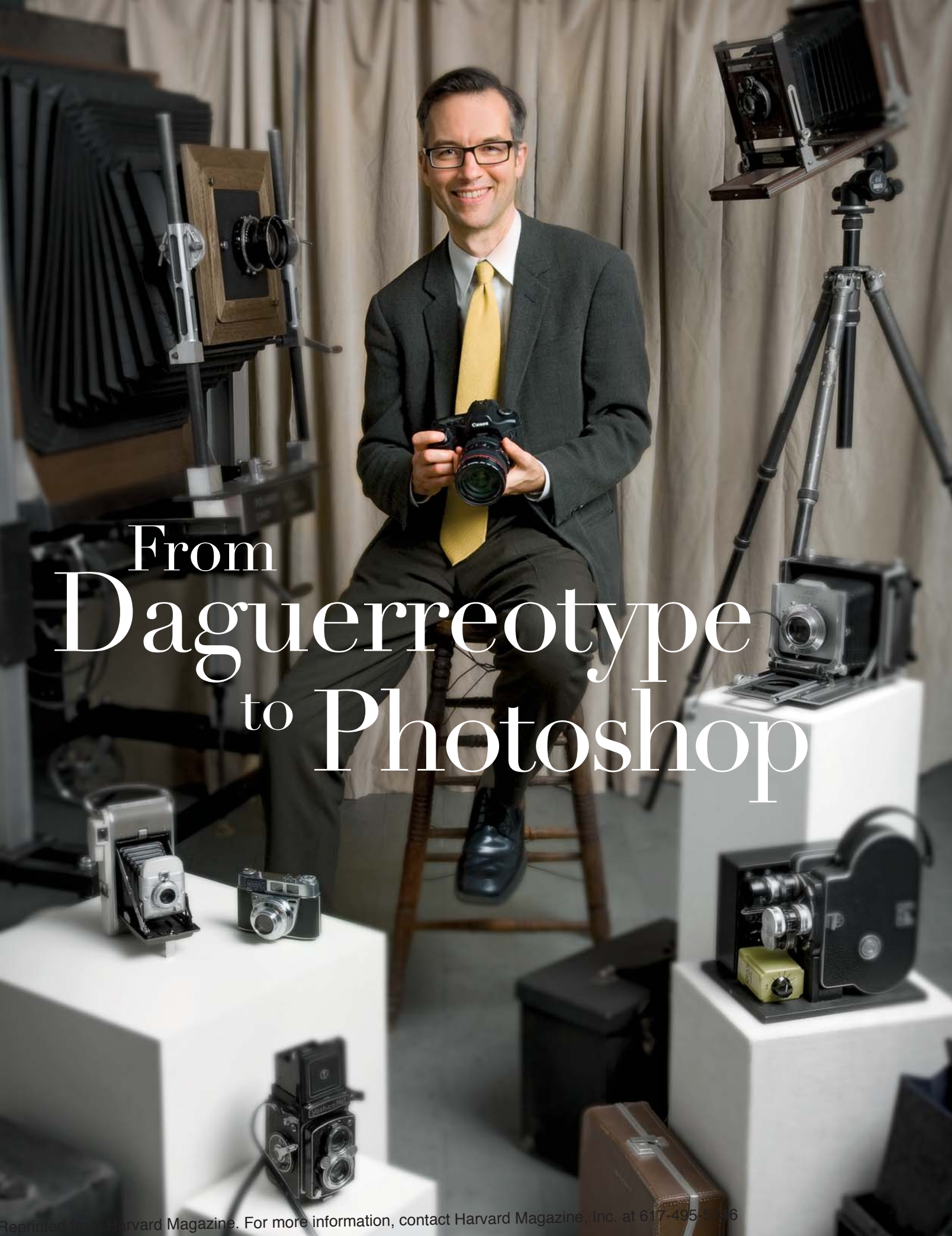
Like many other people working in bioengineering at Harvard, Nagpal stresses the importance of finding collaborators and seeking input from colleagues across disciplines. For many bioengineers, in fact, collaboration is a necessity, because specific expertise in biology, physics, or math can be absolutely essential to a project. Her students may present their work at hospitals or math seminars to solicit new perspectives. Within SEAS, she says, “It’s very easy to talk to people and find out what they’re up to, and the connections happen really fast.” At the same time, electronic communication makes it easier to maintain links to other researchers whom she doesn’t see face-to-face.

“I really like all these opportunities, and there’s a lot of informal contribution,” she notes—but the bigger problems are, how many people can one possibly interact with, and what’s the ideal size of a network? In asking these questions, it’s clear that even the living system of scientists at Harvard could serve as an inspiration for Nagpal’s work. This freedom to look for ideas and resources beyond a single discipline—whether the goal is to treat a disease, design a computer network, or understand the structure of cells—is what makes bioengineers across the University excited about the prospects of their field. ▢

*Freelance science writer Courtney Humphries reported on new bioimaging techniques in the May-June 2008 cover story, “Shedding Light on Life.”*



Visit [harvard-mag.com/extras](http://harvard-mag.com/extras) to watch videos of bioengineered systems in action.



# From Daguerreotype to Photoshop



**I**N THE PHOTOGRAPH, Henry James Jr., the future eminent novelist, is only 11 years old. He stands beside his seated father, Henry Sr., a somewhat portly, bearded man resting his hands atop a cane, an appurtenance necessitated by the wooden leg that replaced the one he lost in a fire as a boy. It is 1854, and the two Jameses are posed for a daguerreotype in the New York City studio of Mathew Brady, who several years later would make his place in history with powerful photographs of the Civil War.

In Brady's placid father-son portrait, the younger James wears a military-looking jacket, its nine buttons fastened right up to the collar, and holds a wide-brimmed straw hat with a ribbon encircling the crown. The most telling detail, however, is the way the boy, who stood on a box for the picture, casually rests a forearm on his father's shoulder. "It illustrates how people posing for portraits in the nineteenth century tried to convey their status, character, and modernity in pictures," says Robin Kelsey, Loeb associate professor of the humanities. "The pose conveys the extent to which the elder James was a progressive and permissive parent—he grants his son an autonomy and authority that was quite unusual at the time. Most portraits of that era establish the father as the patriarch in no uncertain terms."

In his course Literature and Arts B-24, "Constructing Reality: Photography as Fact and Fiction," Kelsey teases apart scores of photographic images to reveal what they imply. The course not only treats historic and artistic photographs, but also ranges through medical and forensic photography, "spirit photographs," the photography of social reform, advertising, politics, war, law, and criminality, plus family albums, calendars, and coffee-table books. Kelsey views photography as a "hybrid medium" that is both a simple, automatic trace of reality and an intentional composition that fits the Western pictorial tradition: rectangularity, a single viewpoint, perspective, a vanishing point. "You can sit and spend time with a single photograph in a way that I find very gratifying," he says. "For me, the images reveal themselves only through long and repeated viewings."

With few exceptions, scholars of art history were slow to investigate photography; instead, those in disciplines like American studies and English did the pioneering research. Recently, trained art historians like Kelsey have become deeply engaged, but it remains a small field: "We all know one another and each other's work," he says. (He and Blake Stimson, professor of art history at the University of California, Davis, edited *The Meaning of Photography*, which appeared this past year.) The study of photography is growing—part of a larger trend toward the study

## Robin Kelsey dissects the "hybrid medium" of photography.

by CRAIG LAMBERT



Above: Henry James Sr. poses with his son Henry Jr. at Mathew Brady's studio in New York City, 1854. Left: Robin Kelsey at Harvard's Collection of Historical Scientific Instruments with some classic cameras (clockwise from upper right): Korona 5 x 7 view camera, Gundlach, c. 1900; German Linhof Technika large-format camera; Bolex movie camera; Yashica twin-lens reflex camera; Kodak Retinette IB, 1960; Polaroid 80b, c. 1960; large-format Polaroid. Kelsey holds a 2005 digital Canon 5d.



of visual material in general—though it must compete for resources at a time when many art-history departments are working to become less Eurocentric and to strengthen their African, Asian, and Latin American sub-fields, for example.

The similarities between what Kelsey does with photographs and what art historians do with paintings are greatest with consciously artistic photographs, such as those of Alfred Steiglitz. Yet there are differences. “In the study of painting, one can assume, generally speaking, a high degree of intentionality behind the particulars of the work. Van Gogh used his brush just so, because he wanted the painting to look just like that,” Kelsey says. “With photography, especially the instantaneous photographs using fast shutter speeds that became the norm in the twentieth century, chance plays a much larger role in creating the image.”

WEBB CHAPPELL



Though Cartier-Bresson's instantaneous slices of life might seem to argue otherwise, Kelsey cautions that one of the dangers of interpreting photography is that “Images are taken as unproblematic reflections of reality. The object of my course is to prepare students to think more critically about the images they encounter, to be more sophisticated in their understanding of how images work, and to ask why one image, and not another, gets used.”

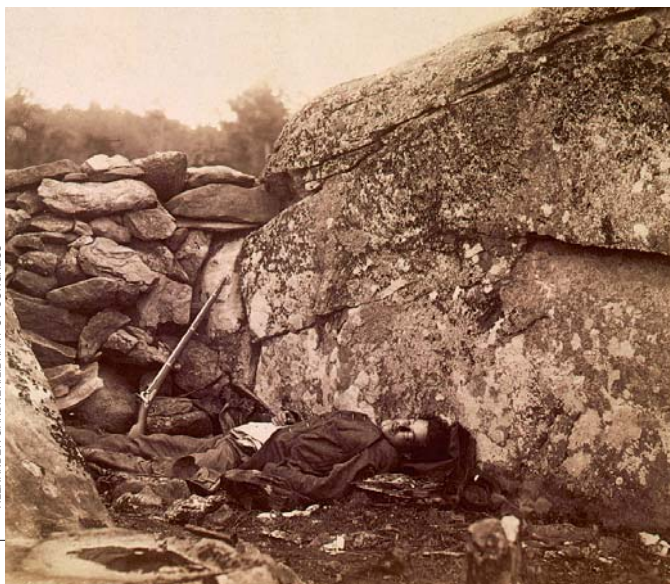
Take, for example, those melancholy Civil War photographs that depict a battlefield with a soldier's corpse in the foreground, his rifle on the ground beside him. “Any viewer in the late 1860s would have realized that no one would have left a rifle on a battlefield,” says Kelsey. “Those corpses were looted for their boots, for money—and rifles were very scarce. Yet viewers weren't up-

## Repeatedly, Kelsey returns to the status of photographs as evidence—in convicting criminals, selling products, diagnosing diseases, or documenting atrocities.

(Indeed, Kelsey's next book, due this year, is titled *Photography and Chance*.) “Chance undercuts your authority over the image,” Kelsey notes. “One of the struggles for photographers in the twentieth century was how to rationalize chance out of the image.”

For example, Henri Cartier-Bresson, whose astonishing street photography revolutionized the art, argued that he could compose a picture in a fraction of a second. His 1952 book, *Images à la Sauvette* (“images on the run,” or “stolen images”), whose English title is *The Decisive Moment*, epitomized this style and coined an entry for the photographic lexicon. At the other extreme, contemporary photographers like Gregory Crewdson and Jeff Wall create elaborately staged and painstakingly produced photographs that have been called “one-frame cinematic productions”—ratcheting up the authorial element by controlling every facet of the composition.

ALEXANDER GARDNER/LIBRARY OF CONGRESS



set; in the nineteenth century, people seemed much less concerned with the ways in which photographs were at times staged. By the 1930s, when allegations arose that a New Deal photographer had inserted the skull of a steer into photographs of parched agricultural land to accentuate the sense of suffering, people were very disturbed. It had to do, in part, with the rise of

journalism as a modern institution and a new ethical code that accompanied this.”

Repeatedly, Kelsey returns to the status of photographs as evidence—in convicting criminals, selling products, diagnosing diseases, or documenting atrocities. “Evidence was one of my favorite courses in law school,” says the scholar, who interrupted his Harvard doctoral program in art history to attend

**A fallen Civil War soldier with a rifle beside him, a scene that any contemporary viewer would have recognized as highly improbable**



Yale Law School and practice for two years in San Francisco. (He completed his Ph.D. in 2000, and joined the faculty in 2001.) “I very much like photography because its aesthetic values are always mingling with its evidentiary values. After more than 150 years, we are still confused by that. Our understanding of photographs as evidence cloaks their function as pictures—we tend to forget all the conventions and choices that go into the production of a photograph because it still seems a simple, direct trace of the world.”

IN THE EARLY YEARS of photography, amid the Industrial Revolution, “People were very concerned about the fallibility of human vision,” Kelsey explains. “In a conflict between a photograph and the human eye, the machine was thought to be superior.” In the 1880s, “fast” (more light-sensitive) emulsions and high-speed shutters appeared. “Suddenly, people could see images of bodies frozen in motion, and it was startling,” he says. “Artists had represented people running or horses galloping in accord with certain conventions of grace and beauty. Now photographs were showing bodies in motion in a very different way, and many people found these images shocking and awkward-looking. The frozen image is not available to everyday experience. The authority of photography was such that people believed the photographs had gotten to a deeper reality.” (Today, in

put photography in the hands of many more (and less serious) amateurs and vastly increased the number of images captured on film. (In 1888, George Eastman made up and trademarked the name “Kodak” and soon coined the slogan, “You press the button, we do the rest.” At first, customers returned the entire camera, with 100 exposed film images, to Kodak for processing.)

In earlier decades, nearly all portraits were formal studio shots, but “snapshots” enabled “candid” pictures. “The idea that people reveal more of themselves to the camera when they are unaware of it is more than a century old,” Kelsey says. “But what we call the ‘candid’ photograph in our photo album is hardly a typical picture of the subject. What we put in our photo albums are idealizations. The obligation to smile for the camera is a way of ensuring that we always look like we are enjoying ourselves at birthday parties or on holidays and vacations. Even if we are miserable, the photo album will insist that we are having a great time.”

Idealized self-images are buried deep in the psyche. Kelsey points to a recent study showing that when a digitally idealized image of ourselves appears in an array of images, we pick ourselves out faster than we do with an unimproved image—yet we locate friends and acquaintances more quickly from unimproved images.

The practice of improving, enhancing, distorting, and otherwise manipulating photographic images with computer soft-



This “animal locomotion” series of pictures, made in 1887 by English photographer Eadweard Muybridge, depicts a woman leaping. Such photographs often discomfited viewers who had idealized images of what human bodies in motion looked like.

a world in which the “snapshot aesthetic” has long since become the norm, a *Sports Illustrated* shot of a base runner splayed across home plate has become visually pleasing.)

By the late nineteenth century, photographs were also displacing and supplementing medical illustration. “Doctors might seek out and emphasize symptoms that showed up well in photographs,” Kelsey says. “In France, [neurologist Jean-Martin] Charcot used photographs extensively in his studies of hysteria. It seems clear that he interpreted hysteria in a way that made the photographs as significant as possible, emphasizing these theatrical gestures the patients made. You could analyze hysteria in terms of the utterances and sounds patients made, but Charcot stressed the visual cues.”

The advent of the Kodak camera in the late nineteenth century

ware—as with previous techniques to doctor photographs—has led some to predict that viewers will no longer take photographs seriously as evidence. So far, that has not happened. The torture pictures from the Abu Ghraib prison in Iraq, for example, were widely credited as evidence of wrongdoing. “The Abu Ghraib pictures were not produced by photojournalists,” Kelsey explains. “Their credibility had to do with the fact that they are self-incriminating. It’s hard to believe that someone on the inside of the prison would have doctored those photographs. The whistle-blower story was very compelling.

“Historically, what has sustained photographs as evidence is not simply the automatic nature of the medium, but journalistic codes of integrity,” he continues. “After all, when writing a verbal report of an event, one can make up everything, but we do still

take what we read in newspapers seriously, due to our faith in the integrity of the institution. Now photography will have to rely on those forms of trust, rather than on simple faith in the technology itself."

Even so, in our media environment, the image often trumps the word—or even the deed. The "photo op" was "an invention of the Reagan presidency," says Kelsey. "Ronald Reagan, who was an old movie actor, understood the importance of the camera in a way that no previous president did." On the eve of the 1984 election, for example, CBS aired a hard-hitting piece by correspondent Lesley Stahl that criticized Reagan for cutting funding for the disabled and elderly, even while appearing in photo ops at the Handicapped Olympics and at the opening of an old-age home. To her surprise, as Stahl recounted in her memoir, *Reporting Live*, she received a call from Reagan aide Richard Darman '64, M.B.A. '67, complimenting her on the piece and praising its strong visuals. "They didn't hear you," Darman said. "They only saw the pictures."

Today, of course, cell phones and the Internet have made nearly everyone a potential photojournalist. For Kelsey, the ability to disseminate images globally via the Web is a far more significant historical shift than the change from film to digital photography (though they are, of course, technologically related). "If we were just making digital pictures and printing them out, that would have a much less profound impact than what we have with the Internet," he says. As an example, he cites images of 2007 street conflicts in Cameroon, transmitted daily by ordinary citizens with cell-phone cameras, who "could operate in a sense as photojournalists for people around the world."

Furthermore, even as digital photography has made it easier to manipulate im-



**Above:** *Insomnia* (1994), by Canadian photographer Jeff Wall, is a completely staged cinematic photograph, set in an exact replica of the kitchen in Wall's studio. An actor portrays the victim of a nightmarish bout of insomnia. **Below:** The Museum of Modern Art's first photography exhibit, in 1937, featured this stroboscopic "Coronet" milk-drop image by Harold E. "Doc" Edgerton, the MIT professor who invented ultra-high-speed and stop-action photography.

explaining that it had apparently been digitally altered. (The Associated Press received a very similar image from the same source that showed only three missiles taking off.) The Iranian agency seemed to have added a fictional, fourth sky-bound missile to disguise the failure of an actual fourth missile. "Now that we have these conflicting images," says Kelsey, "the question becomes: what is the most persuasive explanation for the incompatible pictures, what is the most compelling story we can tell?"

Telling stories with images has become central to modern life—economic, social, political, cultural. "The terrorists have certainly fought with images," says Kelsey. "Though we must never diminish the value of the thousands who lost their lives in the World Trade Center attacks, it is also true that the effect of those attacks on this country as an *image*—the planes hitting and the towers going down—was psychologically devastating. The invisibility of the terrorists makes it difficult to respond with an equally powerful picture. The primary lesson: never underestimate the power of images." ▽

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





# JOHN HARVARD'S JOURNAL



## Harder Times

ABRUPTLY, the financial challenges facing Harvard—whose programs, people, and physical plant have prospered from the seven-fold-plus appreciation of the endowment in the past 15 years—have attracted urgent attention. Late on December 2, the University posted a memorandum from President Drew Faust and Executive Vice President Ed Forst stating that the endowment's value had declined 22 percent through October 31. Moreover, "even that sobering figure is unlikely to capture the full extent of actual losses for this period, because it does not reflect fully updated valuations" for certain classes of assets, "most notably private equity and real estate." Those assets, managed externally, are valued in pe-

**AL GORE '69, LL.D. '94**, filled Tercentenary Theatre on October 22 when he spoke about sustainability. Noting that the impressive turnout on a raw fall day—free soup, cider, and apple crisp notwithstanding—indicated "deep and broad commitment to addressing this issue," Gore said, "There is an African proverb that says, 'If you want to go quickly, go alone. If you want to go far, go together.' We have to go far, quickly." For more on Gore's visit, see page 58.



## IN THIS ISSUE

- |    |                               |    |   |
|----|-------------------------------|----|---|
| 50 | Harvard Portrait              | 61 | For Santiago's Poor, Housing with Dignity |
| 51 | Educating Students for Life   | 62 | Studying Schooling                        |
| 53 | Advancing Art                 | 63 | Brevia                                    |
| 53 | Yesterday's News              | 66 | The Undergraduate                         |
| 54 | Edward M. Kennedy             | 69 | Sports                                    |
| 58 | Educating Professionals       | 72 | Alumni                                    |
| 58 | Gore Boosts a Greener Harvard | 76 | The College Pump                          |
| 60 | Crimson in Congress           |    |   |



riodic reports to Harvard Management Company (HMC); the expectation is that “the endowment will realize further declines in value” there.

The numbers may seem abstract, but their consequences are real. The endowment was valued at \$36.9 billion last June 30, at the end of fiscal year 2008; in that year, Harvard’s total revenues were about \$3.5 billion, with some \$1.2 billion (34.5 percent) from endowment-income distributions. Such distributions are much the largest source of operating revenue today, far outstripping tuition and fee revenues (20 percent), sponsored support for research (19 percent), and other income.

The prospective decline in the endowment is unprecedented. In the past 40 years, the memorandum notes, Harvard’s worst investment loss was a negative 12.2 percent return in 1974. Given the extraordinary circumstances, the University’s planning envisions a scenario with asset values decreasing 30 percent. Accordingly, Faust and Forst advised deans “not merely to contemplate changes at the margins,” but to prepare for significant budget reductions.

THE COMMUNITY had been prepared for bad news. On November 10, Faust e-mailed a message announcing that Harvard faced “a period of greater financial constraint.” She noted several sources of pressure, particularly the impact of plunging financial markets on the endowment. “[E]ven well-diversified portfolios are experiencing major losses,” Faust wrote, citing an external projection of “a 30 percent decline in the value of college and university endowments in the current fiscal year.”

Later that day, Faculty of Arts and Sciences dean Michael D. Smith wrote to his colleagues: “The FAS is not unfamiliar with proverbial belt-tightening, but given the current crisis we will need to go significantly further....[W]e must consider

budgeting scenarios that significantly reduce our annual operating expenses.” That was notice enough to attract a standing-room-only audience to the November 18 faculty meeting.

The arithmetic is sobering. Beyond losses in value from negative investment returns, the endowment will be further reduced by current-year distributions for operating and capital purposes—totaling perhaps \$1.6 billion. As a hypothetical exercise, that implies a decline in the endowment’s value (including both the negative investment returns of 22 percent to 30 percent, and the funds distributed this year) from \$36.9 billion to a range of \$24 billion to \$27 billion by year’s end. Using the Corporation’s long-term guideline of distributing approximately 5 percent of endowment value annually, such declines imply theoretical reductions in yearly spending power of nearly \$500 million to about \$635 million (though likely actions, discussed below, would lessen that impact).

Daunting though the University’s situation may be, the case is even more so for Harvard entities that are particularly dependent on endowment distributions (see “The Endowment: Each School’s Stake,” opposite, for each academic unit’s share of the endowment, and the related portion of its revenues, for fiscal year 2008, ended last June 30).

FAS is most vulnerable, in sheer dollars. As Smith noted at the faculty meeting, FAS is using approximately \$650 million in endowment-income distributions to support operations this year—more than half its roughly \$1.2 billion in budgeted expenses—and had planned on about \$750 million of such distributions for fiscal 2010, beginning July 1—approaching 60 percent of the preliminary budget. (In mid decade, endowment distributions accounted for about 46 percent of FAS’s annual operating revenues.)

Now, Smith said, FAS found itself facing a much more adverse environment. Using Faust’s projection as a guideline, he said that if a 30 percent decline occurred, FAS’s endowment would fall by \$5 billion (to \$11 billion). If the Corporation then hewed to its long-term distribution goal, FAS would receive \$550 million in endowment-income distributions for fiscal 2010—\$200 million less than planned,

and \$100 million less than in the *current* year. Moreover, he said, even if FAS received the full \$750 million it had anticipated, its core budget (the College, the Graduate School of Arts and Sciences, and the faculty members themselves) would still run a \$20-million deficit next year, without *any* new programs or enhancements. (Smith did not note that if *this* year’s income distributions are taken into account as well, under that scenario the FAS endowment could drop to \$10.3 billion, exacerbating the shortfall.)

The central administration will have to mind expenses, too: its operations are funded in part by assessing schools’ budgets and endowment funds. Harvard’s funding model thus assures that changes in endowment distributions and schools’ budgets directly affect administrative finances, so the same cost-cutting guidelines apply.

(The annual half-percent endowment levy to defray Allston development expenses—the “strategic infrastructure fund,” \$168 million in fiscal year 2008—is a separate assessment. Although it is a capital item, not an income distribution, FAS members asked at the November 18 meeting if it might be reconsidered, as the pace of work in Allston is recalibrated; Dean Smith indicated that “everything is on the table,” not only within FAS but in the council of deans’ institution-wide discussions with the administration.)

IMPORTANT UNCERTAINTIES surround the University’s finances, even as its leaders must prepare future budgets. In extremely volatile markets, endowment-asset values might recover somewhat.

But there are offsetting cost pressures as well. First, in her November 10 message, Faust stated flatly that Harvard “must...affirm our strong commitment to financial aid for our students” at all levels; that substantial part of the budget is off-limits for cutting—and will become *more* costly as aid requests rise during the recession, and as tuition and fees increase. Second, expensive construction projects under way (the first Allston science laboratory, a Law School office complex, and the art museum renovation, totaling an estimated \$1.7 billion) will proceed. Third, sources of additional revenue are

For background on fiscal year 2008 results, see the November-December 2008 issue: “Endowment Edges Up in a Down Year,” page 60, and “In the Black,” page 68. More extensive posts on the financial news appear at <http://harvard-magazine.com/categories/breaking-news> for November 7, 10, 12, and 19 and December 2.





constrained: Faust noted that donors will be “harder pressed,” that sponsored-research funding is subject to “the intensified stress on the federal budget,” and that tuition increases will be “moderate” given “economic strain” on households.

How will Harvard respond? The Corporation will determine exactly what budgets it will authorize (and thus how it will spread cutbacks in endowment distributions over time). That decision, usually made around Thanksgiving, has been deferred pending information about the ultimate value of the endowment, and data from the schools and the central administration about savings they might effect. As is its custom, the Corporation

would not comment; Faust and Forst did note their expectation that “we will be spending a higher percentage of the endowment next year than we have in the recent past.” But she cautioned that the magnitude of the investment losses is clearly too large to cushion against the prospect of significant budget cuts.

Smith told his faculty that Faust had asked deans to reduce budgeted spending by a percent for this fiscal year (more than \$10 million for FAS—not simple to effect with half the year already gone). In a November 24 e-mail, he placed “all staff changes and searches on hold”; urged canceling of “any open [professorial] search if the priority...changes” or the applicant

quality “is not truly extraordinary”; and solicited recommendations for cuts, to be channeled through a “Priorities Committee” that will operate through March.

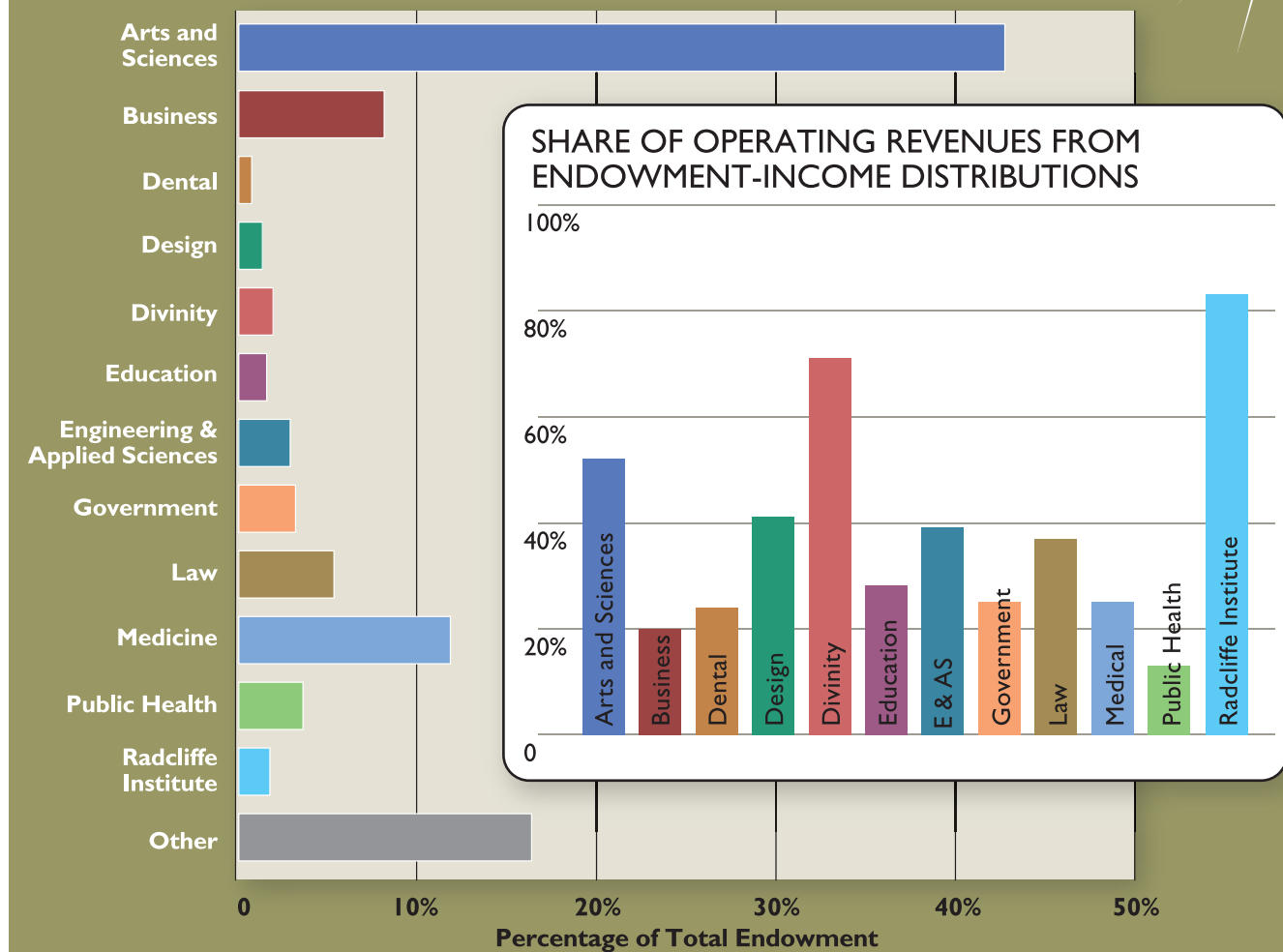
Informally, University guidance suggests that recommended wage and salary increases for the next fiscal year will be zero, compared to the 3 percent to 4 percent adjustments recently.

With wages and salaries totaling \$1.3 billion in fiscal year 2008, and more now, each percentage increase



## THE ENDOWMENT: EACH SCHOOL'S STAKE

Harvard's endowment, valued at \$36.9 billion as of last June 30, in fact belongs to the separate schools and other academic departments. The large chart shows the share of the endowment owned by each (the Faculty of Arts and Sciences loomed largest, at \$15.7 billion—nearly 43 percent of the total). Of crucial importance is each school's dependence on distributions from the endowment for its operating budget, shown in the inset chart. Source: *Harvard University Financial Report, Fiscal Year 2008*.



## H A R V A R D P O R T R A I T



## Chiara String Quartet

**When Julie Yoon** joined the Chiara String Quartet in 2000, she not only gave up a spot in a master's program at Juilliard, but also agreed to pull up stakes in New York City and put them down in Grand Forks, North Dakota. The Manhattan-based quartet had won a rural residency grant, but had lost its second violinist to an arm injury. Those left (Rebecca Fischer on violin, Jonah Sirota on viola, and Gregory Beaver on cello) needed a replacement. "The fact that they were going to North Dakota to do this residency," Yoon says, "was a strong indication of what kind of people they were and what kind of group they wanted to be." The players aim to be musical pioneers in both what and where they perform: Haydn to Schoenberg, in concert halls, company cafeterias, schools, and even nightclubs. Now, as the Blodgett Artists-in-Residence, they will spend 12 weeks (spread across three academic years) teaching and performing at Harvard. Group members say they went out West because that afforded so many opportunities to play (albeit sometimes at schools at 7 A.M., with half-frozen fingers). They also had time to settle on ways to resolve disputes. In an orchestra, notes Beaver, "You can play with people you have active lawsuits against. Not so much in a quartet." ("At least [the quartet] won't last," adds Fischer.) They have since spent two years in New York in a residency with the Juilliard String Quartet, and now hold a long-term position at the University of Nebraska that enables them to spend 60 percent of their time traveling and performing. "That's really why we do this," explains Sirota. "We also love to teach, but performance comes first."

worsens the fiscal problem by more than \$13 million. Faust and Forst are "taking a hard look at hiring, staffing levels, and compensation"—and "reconsidering the scale and pace of planned capital projects," including Allston.

To maximize financial flexibility during a period of disrupted markets and a recession of uncertain depth and duration, the December 2 memorandum outlines an additional financial strategy.

First, taking advantage of the University's top-tier (Aaa/AAA) credit rating and the historically low interest rates, Harvard will issue "a substantial amount of new taxable fixed-rate debt." Forst said borrowings will depend on the terms and structure of debt that can be sold in the market over time. (According to the 2008 University financial report, taxable bonds and notes outstanding as of last June 30 were \$1.3 billion; tax-exempt debt issued at fixed rates totaled \$1.1 billion.) The aim is to accumulate cash "to fund ongoing operations and critical academic and research priorities."

Second, to reduce risk in the cost of renewing its short-term debt in volatile markets, the University intends now to replace such borrowings with longer-term tax-exempt debt instruments. Variable-rate notes and commercial paper outstanding totaled about \$1.6 billion as of last June 30; the exact amount now is presumably somewhat greater.

These steps, if effected, may help alleviate other challenges, including those facing the endowment managers. Although HMC declined to comment, it—like other long-term investors with similar strategies—likely has substantial contractual commitments to deliver funds in the future to investment-management firms (which in turn make distributions of funds from successful investments to their limited-partner clients, such as HMC). That is the norm for private-equity, venture-capital, and hedge funds, and for various kinds of real-estate and commodities assets; such assets collectively make up perhaps half or even more of Harvard's endowment holdings.

(One institution that discloses such issues, the University of Virginia Investment Management Company—UVIMC—revealed that as of September 20, it has "un-



called commitments of \$1.8 billion to private funds” during the next five years. Under “normal circumstances,” expected investment distributions would exceed the capital calls, but few distributions were expected through 2009. In a November 26 letter, UVIMC’s chief executive, Chris Brightman, put investment losses at \$1 billion, or 21 percent, for the 12 months ended October 31, and explained how his team expected to meet such calls through its liquid assets, bonds, and redemption of hedge-fund investments.)

HARVARD CLEARLY is not alone. Universities and colleges nationwide have reported losses and taken action: Stanford intends to reduce its \$800-million “general funds budget” for faculty and staff salaries, administrative operations, and non-research expenses by \$45 million in each of the next two fiscal years. MIT projected 5 percent to 15 percent cuts, on a \$1-billion base, in the same period. (To date, among the few peer institutions that have indicated they do not now anticipate similar reductions are Princeton, with the highest

endowment per student; Yale, which said its spending rule will likely “buffer the operating budget from any dramatic short-term losses”; and Duke, where endowment distributions contribute less than one-fifth of operating revenues.)

At Harvard, if the most adverse scenarios become reality, hiring freezes and wage restraints will not be sufficient. FAS will have to reduce programs, Smith told the faculty—“not something we typically do.” The University’s decentralized structure and the schools’ differing revenue streams mean that such work will unfold case by case. Much of it will have to be directed by a relatively new group of deans (half appointed during Faust’s first 15 months) and by an administration that was still filling senior positions last fall.

And these new leaders must cope with the whiplash sensation of pivoting from ambitious planning for future academic growth to the possibility of swift, sharp expense reductions. As recently as October 9, Smith’s fall FAS letter mentioned a nagging “structural deficit”—with no

inkling of the possibly draconian cuts now figuring into budget plans.

But Harvard’s leaders sought to balance the disruptive present with a longer-term perspective. Faust’s initial message observed that “we are fortunate to be part of an institution remarkable for its resilience....Harvard has weathered many storms and sustained its strength through difficult times. We have done so by staying true to our academic values and our long-term ambitions, by carefully stewarding our resources and thoughtfully adapting to change. We will do so again.”

And Smith told his colleagues, “business continues” as they teach students and meet research deadlines—though he added a new priority, bluntly asking them to “save cash.” His most lingering message, perhaps, was that “everything we do has merit,” underscoring “how hard it is going to be to make these changes.” The worst possible solution, he stressed, was a wholesale, fixed-percentage cut: a formula for doing everything FAS does now, but less well. A better solution is possible, Smith said, but, “It has to come from you.”

## Educating Students for Life

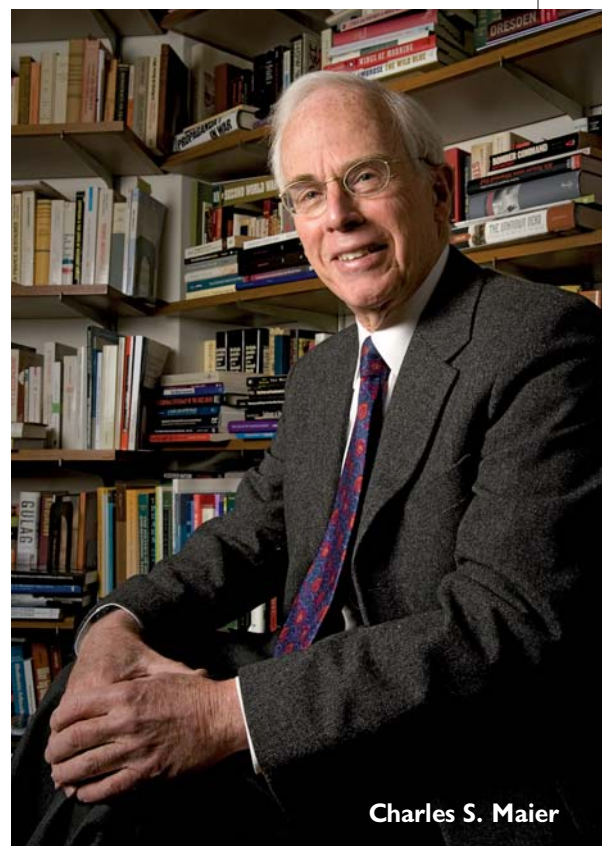
ON A Wednesday afternoon in a Sever Hall classroom, students are discussing the Nuremberg Trials. The point of the trials—to punish those responsible for Nazi atrocities—is well known. But Saltonstall professor of history Charles S. Maier tries to push students beyond a simplistic understanding that crimes were committed and justice delivered.

Why did the charges in these cases not emphasize the targeted effort to wipe out the Jewish people? Maier notes that genocide had not yet been codified as a crime by any state or transnational body (the term had only recently been coined) so the prosecutors had to work within the existing framework of international law.

A student raises his hand and expresses the opinion that there are some actions that are universally morally offensive, whether they violate the letter of some law or not. “If somebody has done

something wrong,” he says, “there should be a way of trying them.”

Suddenly, the class has made a leap from analyzing one concrete example to discussing whether universal moral principles exist—or whether, on the contrary, these principles arise from cultural context. In such moments, the new general-education curriculum approaches its goal: to introduce undergraduates to ways of thinking about the world that will shape their lives beyond college. This stands in opposition to the Core curriculum now being phased out, which placed more emphasis on introducing students to approaches used by academic disciplines or sets of disciplines. Maier’s course, Ethical Reasoning 12: “Political Justice and Political Trials,” begins with Socrates (who was tried and sentenced to death for allegedly corrupting the minds of Athenian youths) and progresses through cases from the French Revolution, the Soviet purges, South Africa, Rwanda,



Charles S. Maier

and the U.S. war on terror. Maier looked for trials where English-language sources existed—when possible, students read transcripts of the proceedings. And he looked for “those great dramaturgic moments in which general principles are being debated.”

Maier aims to illustrate how political trials move beyond bureaucracy to broadcast a message about a society's values. He prods students to consider how, in an international context or that of a nation divided against itself, a given entity gains the standing to command defendants' attendance and mete out punishment. During the Nuremberg lecture, he notes that in Stockholm in 1967, a group of left-wing intellectuals found the United States guilty of alleged war crimes in Vietnam; the proceeding was considered a show trial, and had no effect beyond symbolism. Then he asks students a provocative question: how would they view an attempt by some foreign or transnational body to try George W. Bush for war crimes in Iraq?

This focus on applied ethics reflects a major difference between general education's “ethical reasoning” category and the Core's “moral reasoning” category, whose offerings were limited to the theoretical, says dean of undergraduate education Jay M. Harris, Wolfson professor of Jewish studies, who taught “If There Is No God, All Is Permitted: Theism and Moral Reasoning” under the Core.

In the arts, three categories from the Core (one focusing on literary texts, one on visual arts and music, and one on cultural epochs in history) were joined into one: “aesthetic and interpretive understanding.” These courses combine the approaches of all three former categories, spanning broad swaths of history, making cross-cultural comparisons, or considering several media within a single course. Meanwhile, two new categories—“societies of the world” and “culture and belief”—broadly map onto the Core's “foreign cultures.” (Harris himself will teach a course in the second category, “The Contested Bible: The Sacred-Secular Dance.”)

Historical studies—which constituted two categories in the Core—has disappeared altogether, subsumed in other categories, including the two just mentioned

## Gen Ed, Year One

*A sampling of courses offered in 2008-09*

### **Aesthetic and Interpretive Understanding**

Poetry without Borders  
Putting Modernism Together

### **Culture and Belief**

Medicine and the Body in  
East Asia and in Europe  
For the Love of God and His Prophet:  
Religion, Literature, and the Arts in  
Muslim Cultures  
Institutional Violence and Public  
Spectacle: The Case of the  
Roman Games

### **Empirical and Mathematical Reasoning** (none offered this year)

### **Ethical Reasoning** Human Rights: A Philosophical Introduction

### **Science of Living Systems** Molecules of Life Understanding Darwinism

### **Science of the Physical Universe** (none offered this year)

### **Societies of the World** Germany in the World, 1600-2000

### **The United States in the World** (none offered this year)

(Students must take one course in each of the categories; there are no exemptions, although students will be allowed to double-count some departmental courses. For a full list of courses, visit [www.generaleducation.fas.harvard.edu](http://www.generaleducation.fas.harvard.edu).)

and “the United States in the world.” (Maier's popular Core courses on the two world wars, which he has taught since the 1980s, will be offered in the history department in future years.) Courses in the two new science categories are expected to engage with the history of science when possible. There is also an explicit requirement

that students take at least one general-education course that “engages substantially with study of the past.”

The new categories have more fluid boundaries than the old. For example, professor of Slavic languages and literatures Julie Buckler will teach Culture and Belief 15: “The Presence of the Past” this spring. Considering museums, memorials, monuments, and other ways in which people commemorate the past, the new course will analyze the process of constructing a culture and a collective past; its reading list includes theory, but also Pushkin, Nabokov, Borges, and Sylvia Plath. There is an element of visual art and aesthetics inherent in the subjects considered; students will also view films (Eisenstein's *October* and Welles's *Citizen Kane*).

The Core gave professors a chance to introduce their own discipline to students from remote concentrations. General education asks professors to venture outside their home departments and take a cross-disciplinary approach. “It's a really exciting model,” says Buckler, who serves on the standing committee that will approve new general-education courses. She says she was challenged to look beyond the post-Soviet sphere she knows best, but found the exercise of assembling the course “exhilarating.”

She believes “a certain sense of bafflement” about general education persists among students and faculty; with the program's broad principles down on paper (see “College Curriculum Change Completed,” July-August 2007, page 65), the standing committee's members are now engaged in recruiting colleagues and discussing how they might craft courses that fit these rubrics. “People may not be used to thinking as flexibly as the new categories encourage us to do,” says Buckler.

The general-education principles approved in May 2007, and the first course offerings this past fall, are the product of a curriculum review that spanned four years. Freshmen who entered this year can still fulfill their graduation requirements with the Core if they wish; general education will be mandatory starting with the class of 2013. During the transition, all gen-ed courses will count for Core credit; the list of general-education courses (see [www.generaleducation.fas.harvard.edu](http://www.generaleducation.fas.harvard.edu)).



fas.harvard.edu) is slim, but growing.

Although some of the latter are refashioned Core courses, Jay Harris warns that an identical title doesn't mean the course hasn't changed. When professors come before the committee for approval, he says, "we are strongly urging reconsidering assessment, rethinking pedagogy, updating content."

This is the first major overhaul of undergraduate education since the Core was implemented in the late 1970s. Maier, a member of the class of 1960, has seen the tide turn from general education to the Core and back again. He sees pluses and minuses in both models. "The real virtue" of conducting such an evaluation every few decades, he says, "is to get some of the really good teachers involved in discussing the curriculum and producing exciting courses."

## Advancing Art

AS A UNIVERSITY TASK FORCE readied its vision for curricular and facilities investments in the creative and performing arts (see page 57), Emily Rauh Pulitzer, A.M. '63, gave the Harvard Art Museum 31 important works of modern and contemporary art (one of the most significant such donations in the museum's history) and \$45 million (the largest single cash donation in its history). The gift, unveiled on October 17, was a culminating moment in Pulitzer's lifelong devotion to art collecting, connoisseurship, and scholarship and in her engagement with the University. (See the October 17 posting at <http://harvardmagazine.com/web/breaking-news> for a list of the art works, an illustrated 1988 *Harvard Magazine* article by Judith Parker on the Pulitzer collection, and more details.)

The art museum also disclosed previous gifts of 43 other modern and contemporary works, made between 1953 and 2005 by Pulitzer and her late husband, Joseph Pulitzer Jr. '36, and by Mr. Pulitzer and his first wife, Louise Vaucrain (who died in 1968), and of financial support that enabled the museum to purchase 92 (please turn to page 56)

## Yesterday's News

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

**1929** The Student Council criticizes the administration's plan to erect one of the newly endowed Houses east of DeWolfe Street, arguing that the future Dunster House will be too far from such "immovable centers" as Widener, Mallinckrodt Laboratory, and the University Museum.

**1934** The editors publish a list of nearly 200 books Widener Library cannot afford to buy because of the Depression, prompting gifts of books and money from *Bulletin* readers.

**1939** A group of undergraduates begins raising money for 15 scholarships to bring South American students to Harvard; U.S. Secretary of State Cordell Hull calls it a great idea.

**1949** Lamont Library opens, prompting a special 18-page issue of the *Crimson* that raves about its comfort, brightness, and efficiency.

**1954** The Faculty's Educational Policy Committee approves a program of early admission and ad-

vanced placement for able and mature students.

**1959** Assistant U.S. Secretary of Health, Education, and Welfare Elliot Richardson '41, LL.B. '44, proposes that the federal government help out the parents of college students by means of tax exemptions, tax deductions, or tax credits.

**1969** The Faculty of Arts and Sciences votes to withdraw academic credit for Reserve Officers' Training Corps activities at Harvard—home of the oldest ROTC program in the country.

\* \* \*

The Harvard-Radcliffe Policy Committee proposes that a co-residential trial exchange of students in the undergraduate Houses begin at once. A committee survey has indicated that 80 percent of Radcliffe students and 65.5 percent of Harvard students support the plan.

**1989** Judith Richards Hope, J.D. '64, becomes the first woman appointed to serve on the Harvard Corporation.



Illustration by Mark Steele

## Edward M. Kennedy '54, LL.D. '08

had once hoped, being president. It is instead this rare privilege of receiving an honorary degree from Harvard at a special convocation." So said Edward M. Kennedy in Sanders Theatre on the balmy afternoon of December 1. "I am moved and deeply grateful to my university."

Thus the long-serving United States Senator joined an even more exclusive club of those few towering leaders (also including Winston Churchill and Nelson Mandela, James Monroe and Andrew Jackson) awarded honorary degrees outside the annual Commencement exercises—in this case, because of Kennedy's treatment for brain cancer last spring.

The ceremony was by turns nostalgic (it began with footage of Kennedy, in his Crimson number 88 jersey, scoring Harvard's lone touchdown in the snowy 1955 Game; he also noted that his father enrolled in the College exactly a century ago this past September); stem-winding and revivalist (the huge standing ovation for Vice President-elect Joseph R. Biden, who entered just before the festivities began at 4:30, and sat next to Caroline Kennedy '80 and across the aisle from Senator John Kerry; Kennedy's own thundering defense of liberalism in the words of his brother, John F. Kennedy '40, LL.D. '56, shortly before his election as president); valedictory (Kennedy recalled, "As I said in Denver last summer, for me, this is a season of hope," and thanked "Massachusetts for the privilege of serving its people and its principles"); and warmly funny (President Drew Faust quoted Kennedy on his model of service—"The danger as a legislator is that you get involved with just passing the bill. You can lose the context of what passing the bill means, and then you're just shuffling papers, and you lose that emotional contact. Maybe some people could do it. I think I'd run dry pretty quick"—and then illustrated the point by referring to his weekly visits to a Washington elementary school, where he has become known for his "virtuoso rendition of 'The Itsy Bitsy Spider.'")

After the University Band played "Ten Thousand Men of Harvard" and University Marshal Jacqueline O'Neill called the crowd to order, Plummer professor of Christian morals Peter J. Gomes began the prayer with "Let us now praise famous men" on an occasion intended to "honor goodness as well as greatness." James Onstad '09 was the soloist for "America the Beautiful."

Supreme Court Justice Stephen G. Breyer, LL.B. '64, speaking

"Now I HAVE something in common with George Washington—other than being born on February 22. It is not, as I

as former chief counsel when Kennedy chaired the Senate Judiciary Committee, recalled the senator's cooperation with Senator Strom Thurmond and his insistence that Democratic and Republican staff members "Work it out" to move business forward. On an occasion when cooperation failed and voices were raised, Breyer said, Kennedy teased him by asking, "Well, what did they teach you at Harvard about how to deal with this?" before plunging in to repair the breach. Breyer concluded, "I'm proud that this university I love is bestowing this honorary degree on an eminently deserving son of Harvard whom I admire immensely and who will forever rank among the nation's greatest sena-



Senator Edward M. Kennedy, his wife, Victoria Reggie Kennedy, and President Drew Faust. Members of the Kuumba Singers appear in the rear.

tors....I'm proud to be here now as Harvard says, 'Well done, Senator, and thank you for caring so much about so many for so long. Our Commonwealth, our country, and our world are stronger, fairer, and better places because of all you have achieved.'"

An exuberant Yo-Yo Ma '76, D.Mus. '91 (see "Yo-Yo Ma's Journeys," March-April 2000, page 43), accompanied by pianist Charlie Albright '11, played two preludes by George Gershwin for his soon-to-be fellow honorand. After the pieces ended, Kennedy rose and walked to mid stage to embrace Ma.

In her remarks, Faust quoted one of Kennedy's signature lines, from Tennyson's *Ulysses*: "I am a part of all that I have met." She then detailed his 46 years of elected public service, during which he made his own the concerns of "society's most vulnerable members. The poor. The unemployed. The disabled. The elderly. The seriously ill. Veterans wounded in battle. Newcomers from foreign lands. Men and women facing bias in housing, in employment. Children deprived of the chance for a decent start in life."

In light of Kennedy's work, her own upbringing in segregated Virginia and her scholarship on the antebellum South and the Civil War, and this particular moment in American history, Faust emphasized his civil-rights leadership: "Edward Kennedy delivered his first major speech in the Senate on behalf of the Civil Rights Act of 1964, and he acted as a leader in the passage of the Voting Rights Act the following year. Nearly a half-century later, he serves as key Senate sponsor of the Civil Rights Act of 2008. He



Caroline Kennedy and Vice President-elect Joe Biden



has been a voice of conscience and commitment and a model of effectiveness in this most central transformation of American life: realizing the promise of opportunity and equality for all."

And she noted his ceaseless efforts on behalf of education—particularly support for financial aid and for biomedical research—saying, "American colleges and universities, in their long history, have had few more dedicated friends."

"There is only one school within Harvard University named for someone other than John Harvard," Faust observed. "That school is named for John Kennedy." At the school's dedication in 1978, she recalled, Senator Kennedy invoked his brother in these words:

More than any other public figure in our recent history, he believed in the power of individual citizens to make a difference, to improve their lives and the lives of those around them. He understood the awesome power of intelligence married to commitment, the irresistible force of an idea in the mind of a man or woman educated to serve the public....His greatest gift was the ability to reach the hearts of others, to plant a seed of hope in barren lives, to nurture new ideas in fertile minds, to inspire the young to devote a portion of their lives to the well-being of their own communities and lift up others less fortunate than themselves.

Faust added, "What Edward Kennedy said of his brother 30 years ago, we see and we celebrate in his own extraordinary career."

Preparing to confer his degree, she said, "As we do, we take profound and continuing inspiration from the vision, the reason, and the courage of the man who, even two decades ago, was recognized by my predecessor Derek Bok as 'Harvard's most impressive living embodiment of lifelong dedication to public service'; the man who will never let us forget that 'the cause endures, the hope still lives.' The Honorable Edward M. Kennedy."

In his response, Kennedy recalled his own arrival at the College: "At home and here at Harvard, which became a second home, I learned to prize history, to play football, and to believe in public service. It was long ago, but I see it now as fresh as youth and yesterday. And I hope that in all the time since then I

have lived up to the chance that Harvard gave me."

Reflecting on his career, he said, "I have seen throughout my life how we as a people can rise to a challenge, embrace

The program featured Kennedy's painting of his beloved boat.

change, and renew our destiny.

So there is no other time when I would rather receive this honor than this year—at this turning point in American history.

Just one month ago, our citizens powerfully reaffirmed the promise of America. That promise has been central to my service, to the contributions of my brothers, and to the age-old dream of millions.

Long after Abraham Lincoln signed the Emancipation Proclamation, long after *Brown v. Board of Education*, long after a young Baptist minister stood on the steps of Lincoln's Memorial and called the nation to the dream of equality, the moment finally is here. The time is now, the long march of progress has arrived at one extraordinary day in American history.

We elected a forty-fourth president who, by virtue of his race, could have been legally owned by the first 16 presidents of the United States. We judged him, as Martin Luther King said, not by the color of his skin, but by the content of his character and the capacity of his leadership.

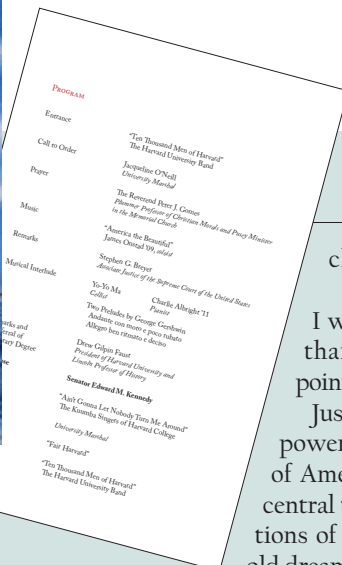
For America, this is not just a culmination, but a new beginning.

Kennedy concluded, "I have lived in a blessed time. Now, with you, I look forward to a new time of aspiration and high achievement for our nation and the world."

The Kuumba Singers then delivered a rousing version of "Ain't Gonna Let Nobody Turn Me Around," O'Neill closed the ceremony, Onstad led "Fair Harvard," and the Band reprised "Ten Thousand Men of Harvard" (as Secret Service agents whisked Biden out of the hall ahead of the crowds).

As the stage party departed, Senator Kennedy, waving away his cane, lingered to give thumbs-up signs and savor the moment and the crowd, finally leaving last. In memory were the words of his honorary-degree citation:

Resolute in pursuit of opportunity for all, dauntless in sailing against the wind, a statesman for all seasons with a singular devotion to country, commonwealth, and the common good.

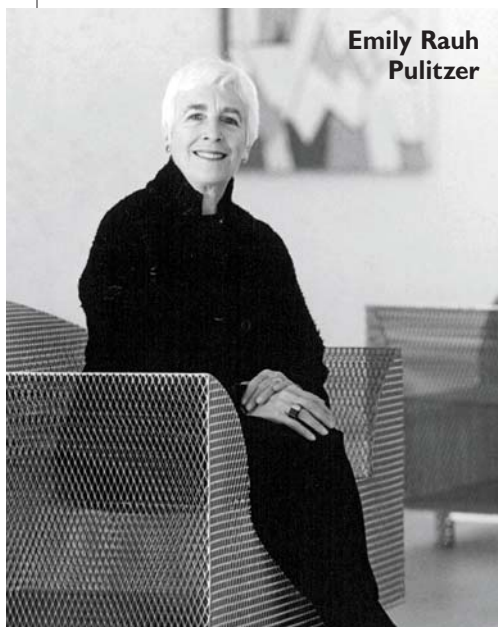


Senator Kennedy savors his special moment.



Visit <http://harvardmagazine.com/breaking-news/edward-m-kennedy-awarded-honorary-degree> for audio and video recordings and texts of the speeches by Justice Stephen G. Breyer, President Drew Faust, and Senator Kennedy.

## ADVANCING ART

*(continued from page 53)*

**Emily Rauh  
Pulitzer**

COURTESY OF EMILY RAUH PULITZER

additional works—thus accounting for a significant part of the museum's modern and contemporary holdings. The announcement comes at a time of major physical renewal of the art museum complex (the Fogg, Busch-Reisinger, and Sackler museums)—a core element in the proposed expansion of the arts at Harvard, and their further integration into academic and extracurricular life.

Said Emily Pulitzer in the University's news release, "Both Joe and I have supported the art museum over the years in recognition of Harvard's unparalleled role in the development of professionals in the arts worldwide and because of our belief that the arts are a cornerstone in learning and education in all fields....I am very proud to support the museum as it moves forward."

President Drew Faust added, "Emmy's generosity will help ensure that [the arts] play an even more robust role on campus and in the lives of all our students, whether they are studying the arts, economics, law, medicine, physics, or other disciplines." In a conversation, she amplified her enthusiasm for "an enormously important gift in so many dimensions"—from renovation of the Fogg to the "injection of energy and possibility" that "reinforces everything we're trying to do" in

mobilizing commitment to the arts.

The new Pulitzer gift includes paintings and sculptures by Brancusi, Derain, Giacometti, Lipchitz, Miró, Modigliani, Picasso, Rosso, and Vuillard, plus major contemporary works by di Suvero, Heizer, Judd, Lichtenstein, Nauman, Newman, Oldenburg, Serra, Shapiro, and Tuttle. The previous gifts and works of art purchased by the museum with the Pulitzers' assistance range from paintings by Braque and Cézanne to pieces by Mondrian, Ellsworth Kelly, David Smith, and Twombly. Faust noted, in the interview, that modern and contemporary art is "a focus of enthusiasm and interest for our students," but had been underrepresented in Harvard collections.

The financial gift will be applied to the Fogg renovation; Faust observed that it aims to augment curricular and scholarly use of the museums. In a separate conversation, Emily Pulitzer praised the way museum director Thomas Lentz "picked up on the extraordinary quality of the Mongan Center," where drawings are made accessible for teaching and study, "as a very special art-viewing experience." The new Fogg design incorporates study rooms, seminar spaces, galleries for changing exhibitions tied to courses, and galleries for permanent exhibitions. Such varied viewing experiences, Pulitzer said, are "so important" as ever-larger museums become "deadening."

EXPLAINING her life-long immersion in art, Pulitzer recalled growing up "in the first modern house in Cincinnati," decorated with contemporary paintings her parents had collected. Two aunts began Cincinnati's Modern Art Society (now the Contemporary Arts Center). So stimulated, she studied the subject at Bryn Mawr College

***Harlequin*, a 1918 work by Pablo Picasso, is part of the Pulitzer gift.**

and found courses on art history and twentieth-century architecture "very important." After graduating in 1955, she pursued her interest at the École du Louvre and then interned at the Cincinnati Art Museum. She joined the Fogg as assistant curator of drawings (1957-1964), in which capacity she worked with renowned curator Agnes Mongan. That work, Pulitzer said, "changed my life. It was an amazing experience," with extraordinary colleagues and fellow graduate students. Thereafter, she served as curator at the St. Louis Art Museum from 1964 to 1973, and married Joseph Pulitzer Jr. in the latter year.

Joseph Pulitzer Jr., as narrated in this magazine's 1988 article, was smitten by art even before arriving at Harvard College, and made the subject a major part of his studies. By his senior year, he was consulting with Paul J. Sachs (a legendary connoisseur and associate director of the Fogg) about the advisability of purchasing a Modigliani portrait. After his graduation in 1936, Pulitzer's involvement in the family's St. Louis-based publishing business, in art collecting, and in Harvard's museums and art department appear to have proceeded with equal passion. Parker details the development of his "steadily widening knowledge and the intensification of his tastes," resulting in a body of classic works.

Following their marriage, Rauh and Pulitzer formed a partnership that was enriched and deepened by their mutual tastes and interests. Pulitzer told Parker that Rauh, more than anyone else he had met since Paul Sachs, "aided and helped and encouraged me" and "opened my eyes to art immediately being produced, whereas my tendency has been to wait until the dust settles." Rauh, in turn, spoke of "the quality and the passion and the continued commitment" of her husband's collecting "over a very long



BOB KOLBRENER





Joan Miró's 1945 *Woman in the Night* is another work included in Pulitzer's gift.

"Commissioning Ando to design the Pulitzer Foundation building after Joe died was another pioneering step on Emmy's part—and the result is a stunning building, an absolute gem" that "strengthen[s] a nascent arts district in St. Louis, to which Joe and Emmy

always had a deep commitment." Meanwhile, "Both Joe and Emmy cared deeply about Harvard," Rudenstine said, "and this gift represents an extraordinary culmination of their lifetime generosity and belief in the power both of art and of education."

Joseph Pulitzer served on the visiting committees to the fine arts department and to the art museum, and was an Overseer from 1976 to 1982. As early as 1939, he pledged a \$6,000 gift for a postgraduate fellowship to study art abroad; at his fortieth reunion, he established a named endowment to support research travel for undergraduates concentrating in art history. He also endowed a professorship of modern art and a fund for the acquisition of modern art.

He wrote in his twenty-fifth reunion report: "At Harvard I developed a latent or inherited interest in art which has been a source of profound interest and pleasure. As a reflection of the spirit of its time, modern art has particularly held my interest. My hobby is collecting drawing, painting, and sculpture, and while my correspondence has grown fat and my pocketbook lean, I have enjoyed the friendship of artists, critics, collectors, dealers, teachers, and museum men. Often their devotion to their calling has set examples of inspired professional commitment or involvement, which could not fail as a stimulus to one who happily chose journalism as a profession, but who gravitated toward art as an avocation."

Emily Pulitzer joined the visiting committee to the art museum in 1990, and became its chair in 2004; she has also served on and chaired the museum's collections committee. She is currently an Overseer, and in 2005 became a member of the President's Advisory Committee on the Allston Initiative, where sites for cultural facilities

period of time." *Modern Painting, Drawing, and Sculpture*, a four-volume catalog of the Pulitzer Collection, was published from 1958 to 1988; volume four was prepared by art historian Angelica Zander Rudenstine, whose husband, Neil, became Harvard's president in 1991.

Beyond collecting, Emily Pulitzer has been involved in public art leadership in many capacities. She has been a member of the Museum of Modern Art's painting and sculpture committee since 1985 (and vice chair since 1996), and a MoMA trustee since 1994 (thus sharing an institutional affiliation with Joseph Pulitzer's classmate, David Rockefeller '36, G '37, LL.D. '69—whose own strong engagement with art and support for the Harvard Art Museum were marked last spring; see "A Giant's Gift," July-August 2008, page 57). She has been a director of the Contemporary Art Museum St. Louis for more than a quarter-century. Most significantly, she founded and now chairs the Pulitzer Foundation for the Arts, which opened an acclaimed arts-exhibition space in St. Louis in October 2001, designed by the Japanese architect Tadao Ando. She commissioned site-specific works by Richard Serra and Ellsworth Kelly for the opening (in 1982-1983, she was co-curator of the first major retrospective of Kelly's sculpture, and coauthor of the catalog), but it is explicitly not tied to works collected by the Pulitzers.

In an interview, Neil Rudenstine said the Pulitzers "individually and together were often daring, always passionate collectors, who cared deeply about the art with which they lived.... In 1970, Joe had the courage to commission Richard Serra's first site-specific sculpture for his summer house, and then continued—with Emmy—to buy Serra's work." Similarly,

(ranging from museum space to performance venues) are anticipated.

In the interview, she said that there was "absolutely" a need for Harvard to pursue museum space beyond the present Quincy Street complex. Reflecting upon earlier plans for a new museum on the Charles River or in Allston, she said, "It's been very difficult and very painful to have those...projects canceled" after much hard work. But, given the huge effort involved in the Fogg renovation, she added, "I think it's really fortunate in a way, because what [ultimately] comes in Allston will be so much better."

In choosing to donate a significant part of her collection to Harvard, and support the University art museum financially, while fostering a broad range of arts institutions in St. Louis, Emily Rauh Pulitzer has made a major statement about her own deep devotion to visual experience. She has also apparently put into practice an observation she made about the Pulitzer Foundation for the Arts in a 2005 interview with *Panache Privée Magazine*—a comment that could as well apply to Harvard today: "Experience—mainly in the domain of collections turned into museums—has shown that the mission has either been defined too narrowly or too broadly, often resulting in great difficulties for these institutions to remain vital. I strongly hope that the Pulitzer will remain a place of possibilities with whatever occurs being of the highest quality."

## Arts Task Force Update

**A University-wide** task force led by Cogan University Professor Stephen Greenblatt has been studying the status of the arts at Harvard for the past year, and is expected to release its final recommendations in December or early January. *Harvard Magazine* will cover the report and its recommendations in the March-April issue; to read about it sooner, check [harvard-magazine.com](http://harvard-magazine.com), where a news update will appear on the homepage when the report is released. (For background, see "Approaching the Arts Anew," January-February 2008, page 51.)

## Educating Professionals

SPEAKING AT the Harvard Business School (HBS) centennial global business summit, on October 14, and the Harvard Law School (HLS) capital campaign celebration, on October 23—amid the intensifying economic crisis—President Drew Faust outlined her vision of professional education, service, and responsibility. In concert with her installation address a year earlier, the new addresses further fleshed out Faust's aspirations for a research university in the twenty-first century.

Faust's HBS address concerned the purposes of education for leadership—building on the school's self-expressed mission of “educating leaders who make a difference in the world.” Dean Jay Light had already summarized steps the school is taking to meet contemporary challenges, and spelled out attributes of its focus on training leaders: through their development of judgment in establishing priorities; their entrepreneurial vision in finding opportunities to solve problems; their skill in communicating; their values and integrity; and their commitment to action.

Faust elaborated on recent outcomes of that work: “Until now business school

students have graduated with great confidence,” she said. “They joined the fraternity of ‘masters of the universe,’ as Tom Wolfe named them in *The Bonfire of the Vanities*. They created a world in which the market became the organizing metaphor. Today, markets are disordered, and we are working frantically to fix a broken financial system. Never have we more needed leaders who make a difference. But how do we shape them and how do we determine the sort of difference they will make?”

Looking ahead, Faust asked, “What do we have to offer one another, our students, and the world?” She then invoked “the story of the stonemasons, which I

## Gore Boosts a Greener Harvard

**Al Gore '69, LL.D. '94**, spoke about sustainability to a packed Tercentenary Theatre on October 22; the former vice president, who has won a Nobel Prize and an Academy Award for his efforts to fight global climate change, was in Cambridge to receive the Robert Coles “Call to Service Award” from the Phillips Brooks House Association.

“We need to substitute renewable energy for carbon-based energy. It is just that simple,” he told the students, faculty, and staff members who had gathered also to celebrate the University's commitment to reducing its greenhouse-gas emissions 30 percent from 2006 levels by 2016 (see “Environmental Action,” September-October 2008, page 57). His speech capped a week of events emphasizing environmental stewardship, ranging from sustainable meals served in the dining halls to seminars and lectures on such topics as recycling and energy conservation.

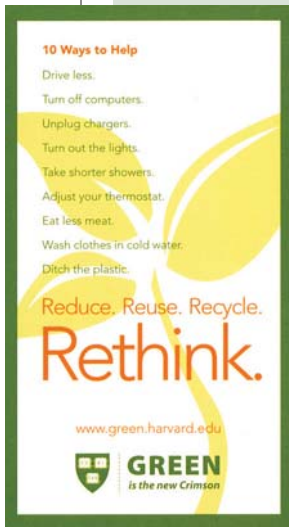
Noting that the United States imports \$700 billion worth of foreign oil each year, and that “continued access to the largest single source of proven oil reserves in the world” was one of many reasons for the miscalculation in entering the costly war in Iraq, Gore argued that “the economic crisis, the financial crisis, the debt crisis, and the climate crisis all have the same thread running through them: overdependence on carbon-based fuels. When you pull that thread,” he said, “all of these crises begin to unravel and you hold in your hand the solution....We need to put a price on carbon, we need a global treaty, and we need American leadership.”

Gore said that the role of the university in our civilization's

effort to solve an existential crisis is worthy of some attention. “How do we incorporate new knowledge into our understandings of who we are and what we must do?” he asked. Harvard president Drew Faust touched on the same theme, saying, “Harvard must be a model...as we unite the knowledge and the passion of this community in service of broad and essential goals....We must recognize,” she added, “that our practices have pedagogical value. We teach with what we do, as well as with what we write or what we say: how we light our classrooms; how we heat our water; how we build and ventilate our laboratories.”

Though Faust's remarks were directed to the University community, which is now charged with meeting the Greenhouse Gas Task Force's ambitious goals, Gore addressed a wider audience. “One of the solutions to the climate crisis,” he said, “involves making a generational commitment to a one-off, massive investment...in a new energy infrastructure that is not free, but that is based on fuels that are free forever: the sun and the wind and the natural heat of the earth. We can, with American leadership, galvanize a global commitment to solve the climate crisis. We have everything we need, with the possible exception of political will—but political will is a renewable resource.” (For audio recordings of the Gore and Faust addresses, see [harvardmagazine.com/breaking-news/gore-speaks-on-sustainability](http://harvardmagazine.com/breaking-news/gore-speaks-on-sustainability).)

The consciousness-raising during Harvard's Sustainability Celebration included lots of giveaways, among them green-themed T-shirts and, from left to right, magnets, stickers, and water bottles.





came across in the writings of Peter Drucker, but which I gather is a bit of an old chestnut in management circles”:

A man came across three stonecutters and asked them what they were doing. The first replied, “I am making a living.” The second kept on hammering while he said, “I am doing the best job of stonecutting in the entire county.” The third looked up with a visionary gleam in his eye and said, “I am building a cathedral.”

The first stonecutter is simply doing a day’s work for a day’s pay, for the material reward he receives in exchange for his labor. The substance of his work, the purpose of his work, the context of his work do not matter.

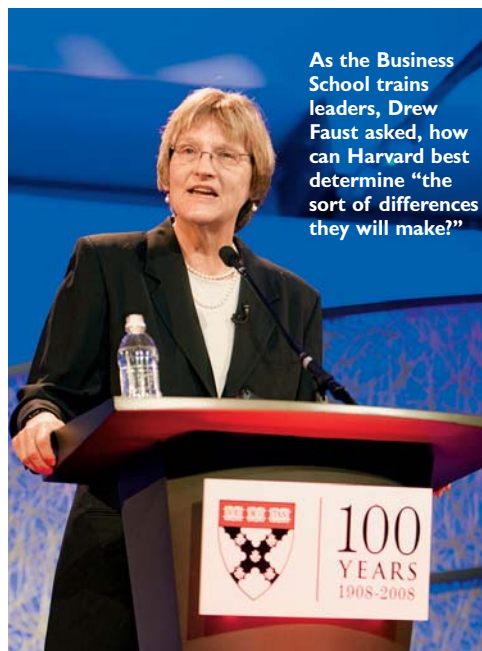
The second stonecutter has higher aspirations. He wants to be the best. We know him well. Harvard does an outstanding job of producing students like the second stonecutter.... HBS...turns out graduates who command the best jobs in finance, banking, consulting, and marketing....Now many of these graduates are to be found in the midst of this crisis—and in the midst of the efforts to resolve it.

The second stonecutter is an unshakable individualist. He believes in the power of the human mind, and its capacity for reason, in the drive for quality and results, and in the usefulness of reducing complex reality to a simple equation. His world is competitive and meritocratic....

Yet somehow the vision of the second stonecutter is also incomplete. The focus on the task, the competition, the virtuosity, is a kind of blindness. Consumed with individual ambition, the second stonecutter...fails to see that there would be no stones to cut if there were not a community building a cathedral.

The third stonecutter embraces a broader vision. Interesting, I think, that the parable has him building a cathedral—not a castle or a railway station or a skyscraper....The very menial work of stonecutting becomes part of a far larger undertaking, a spiritual as well as a physical construction....

What is the meaning of this para-



**HM** For extended dispatches on the HBS and HLS events, see the postings dated October 13, 15, and 24 (two on each date) at <http://harvardmagazine.com/categories/-breaking-news/>; links there lead to full speech texts and audiovisual recordings. Faust’s installation address appears in “Twenty-eighth, and First,” November–December 2007, page 54.

ble for us...at Harvard and at HBS? Why and how do we strive to create stonecutters of the third sort? We have been reminded often these past few weeks about the perils of enshrining material reward as the purpose and measure of work. We know we must do better than to create a society of stonecutters like the first man. The second man is...more like much of our rhetoric and indeed commendable in many ways.

But, she said, even that is not enough. Beyond matters of individual values and performance, the current turmoil represents “a broader and more systematic crisis that has arisen from a failure of wider vision, a failure to acknowledge our interconnectedness, a failure to recognize how one’s own stonecutting is inescapably part of a larger project. And though human beings have always been bound together, we have never before been so thoroughly and instantaneously interconnected. As we have learned, a world defined by global markets is a world without boundaries. A crisis on Wall Street can bankrupt Iceland.”

Accordingly, Faust maintained, Harvard and HBS need to understand that “Leadership that makes a difference in the

world—that makes the right difference in the world—must be thinking like the third stonecutter—who...looks up and out with his sights on the cathedral. This is a matter of both values and vision—of a commitment to purposes beyond one’s self but also a grasp of wider imperatives and understandings. Leaders are accountable for more than themselves; they must be both willing and able to accept that responsibility.”

In the end, Faust said, education throughout the University must be informed by the recognition that “[L]eadership is a means; it is not an end in itself....Leaders exist to serve followers, and leaders’ successes must be measured not simply by their power to move others, but by the directions in which they take those who follow them.”

Of HBS-trained students, she said, “We need leaders who will dedicate themselves to extricating us from the financial mess in which we now find ourselves; we need leaders to help us sort out appropriate regulatory structures in the wake of this crisis; we need leaders to help us address the impact of this crisis on families and individuals; we need leaders who will organize us to combat climate change; we need leaders who can help to deliver the wonders of modern medicine to the tens of thousands of American and global citizens in need of basic health care. These are scientific problems; these are economic problems; these are political problems, but they are also fundamentally problems of organization, management, and leadership.”

Within the University context—amid scholarship, interdisciplinary inquiry, and international perspective—she said, “Business education that takes advantage of such a setting has the opportunity to produce not just leaders who make a difference in the world but leaders who make a difference for the world. That should be the goal for both HBS and Harvard University in the century to come.”

THAT SAME ELEMENT of service echoed strongly in Faust’s law-school remarks, delivered as celebrants gathered to toast HLS’s fortunately timed, record-setting capital campaign (precisely \$476,475,707 raised, compared to a \$400-million goal; 23,000 donors; 118 gifts of \$1 million or

## Crimson in Congress

president of the *Harvard Law Review* (see page 63), was elected the forty-fourth president of the United States. In January, at least 38 other alumni (defined for this exercise as graduates of or matriculants in a degree program at the University) will be in Washington as members of the 111th Congress.

Democrats remain firmly in control of the Harvard contingent on Capitol Hill. Overall, the Crimson ranks will increase from the group of 35 who sat in the 110th Congress to a contingent of 38. This total includes 35 Democrats (up six from the tally in the last session), but only three Republicans (down three), including Representative Thomas E. Petri '62, LL.B. '65, of Wisconsin, who remains the sole Republican member of the House to have graduated from Harvard. The University's eight new faces include Senate Democrat Mark R. Warner, J.D. '80, of Virginia (see "We Need a Win," September-October 2007, page 78), as well as House Democrats John Adler '81, J.D. '84, of New Jersey; Gerry Connolly, M.P.A. '79, of Virginia; Bill Foster, Ph.D. '83, of Illinois; Alan M. Grayson '78, M.P.P.-J.D. '83, G '87, of Florida; Jim Himes '88, of Connecticut; Dan Maffei, M.P.P. '95, of New York; and Walter C. Minnick, M.B.A. '66, J.D. '69, of Idaho. (The Democrats' total will rise by one if Al Franken '73, of Minnesota, wins his race for the Senate against incumbent Norm Coleman; an automatic recount was incomplete at press time.)

Three of Harvard's congressional losses came in Senate races that went against Republicans. Elizabeth Dole, M.A. '60, J.D. '65, of North Carolina, lost her seat, as did John E. Sununu, M.B.A. '91, of New Hampshire. (Sununu was defeated by Jeanne Shaheen, whom he beat in 2002; Shaheen, former director of the Harvard Kennedy School's Institute of Politics, served three terms as her state's first female governor and is its first elected female senator.) And once the final ballots were counted on November 18, Ted Stevens, LL.B. '50, of Alaska, the longest-serving Republican in the history of the Senate, had lost his seat. (He was convicted on seven felony counts eight days before the election.) Elsewhere, Democrat Thomas H. Allen, J.D. '74, of Maine, gave up his House seat to run for the Senate, but lost to incumbent Susan Collins; in Louisiana, Democrat William Jefferson, J.D. '72, who is under federal indictment, was beaten on December 6 in a storm-delayed contest.

The line-up at press time (asterisks mark newcomers):

**Senate Republicans:** Michael D. Crapo, J.D. '77 (Id.); David Vitter '83 (La.).

**Senate Democrats:** Jeff Bingaman '65 (N.M.); Russ Feingold, J.D. '79 (Wisc.); Edward M. Kennedy '54 (Mass.); Herbert H. Kohl, M.B.A. '58 (Wisc.); Carl Levin, LL.B. '59 (Mich.); John F. (Jack) Reed, M.P.P. '73, J.D. '82 (R.I.); John D. Rockefeller IV '58 (W. Va.); Charles E. Schumer '71, J.D. '74 (N.Y.); \*Mark R. Warner, J.D. '80 (Va.).

**House Republican:** Thomas E. Petri '62, LL.B. '65 (Wisc.).

**House Democrats:** \*John Adler '81, J.D. '84 (N.J.); John Barrow, J.D. '79 (Ga.); \*Gerry Connolly, M.P.A. '79 (Va.); James H. Cooper, J.D. '80 (Tenn.); Artur Davis '90, J.D. '93 (Ala.); Chet Edwards, M.B.A. '81 (Tex.); \*Bill Foster, Ph.D. '83 (Ill.); Barney Frank '61, G '62-'68, J.D. '77 (Mass.); \*Alan M. Grayson '78, M.P.P.-J.D. '83, G '87 (Fla.); Jane Harman, J.D. '69 (Calif.); Brian Higgins, M.P.A. '96 (N.Y.); \*Jim Himes '88 (Conn.); Ron Kind '85 (Wisc.); James R. Langevin, M.P.A. '94 (R.I.); Sander M. Levin, LL.B. '57 (Mich.); Stephen F. Lynch, M.P.A. '99 (Mass.); \*Dan Maffei, M.P.P. '95 (N.Y.); James D. Matheson '82 (Utah); \*Walter C. Minnick, M.B.A. '66, J.D. '69 (Id.); John P. Sarbanes, J.D. '88 (Md.); Adam B. Schiff, J.D. '85 (Calif.); Robert C. Scott '69 (Va.); Joseph A. Sestak Jr., M.P.A. '80, K '82, Ph.D. '84 (Pa.); Bradley J. Sherman, J.D. '79 (Calif.); Christopher Van Hollen Jr., M.P.P. '85 (Md.); David Wu, M '81 (Ore.).

**Harvard Square erupted** in historic fashion on November 4 when Senator Barack Obama, J.D. '91, of Illinois, the first black



Mark R. Warner

PHILIP BERNINGHAM/FRIENDS OF MARK WARNER

more, including eight of \$10 million or more).

Invoking Harvard's fifteenth president, Josiah Quincy, on the occasion of his dedication of Dane Hall as HLS's new home, in 1832, Faust said he had "hailed the members of the legal profession for what he called their 'noble exertions and personal sacrifices...in the interests of the age and of society.'" That spirit, she said, still animated the school as it produced attorneys general, solicitors general, members of Congress, governors, and Supreme Court justices, among others.

Beyond formal government service, Faust said, graduates have been involved in the whole realm of public-interest law, representing the indigent, leading non-profit organizations, and encouraging pro bono practice within commercial law firms. Similarly, faculty members "include leaders in shaping our understanding not only of American constitutional law, but of constitutional principles in societies as diverse as South Africa and Iraq." She cited professors' work on economic and racial justice, on corporate governance, on human rights, and on reconciling civil liberties with security, among other fields. And she noted students' engagement with 29 legal clinics that pursue problems in child advocacy, war crimes, human rights, and tenants' rights.

In support of such work, Faust said, the law school has dual responsibilities: "It's critical that [students] leave here with habits of mind and an understanding of legal concepts and methods essential to productive careers in the law. It's no less critical that they leave here with a vivid sense of the law not just as an occupation but as a calling." The school, she said, owes students "not only an education in parsing precedent and interpreting doctrine and mastering techniques of advocacy—but an education that helps them see how, in Quincy's words, 'noble exertions' can advance 'the interests of the age and of society.'"

In closing, Faust invoked alumnus Oliver Wendell Holmes Jr., who described law as the "branch of human knowledge... more immediately connected with all the highest interests of man than any other which deals with practical affairs." She particularly emphasized that juxtaposi-



## For Santiago's Poor, Housing with Dignity

**Santiago, Chile**—A young boy plays unsupervised in front of a house that bears a small wooden sign, handwritten in marker: *Se venden helados* (ice cream for sale).

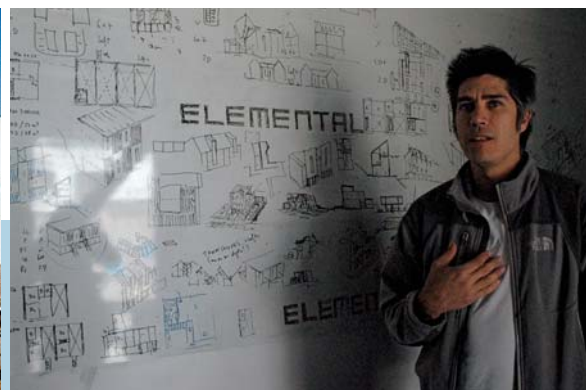
Behind this rather ordinary scene is an extraordinary story with deep Harvard ties. In this tidy development of row houses, 170 families who once lived illegally have become homeowners. Stay-at-home moms feel safe leaving their children in the front yard; some have started small businesses. It is a far cry from the lawless environment of the *campamento*, or squatter settlement, that sat on the same tract of land until 2004.

The development has transformed residents' lives—and is transforming notions about housing the poor. Similar developments are built or under way at other locations in Chile; there are plans to replicate the project in other countries.

All this sprang from an international competition to design very low-cost housing for Santiago's poor, organized in 2003 with conceptual and financial support from the Graduate School of Design (GSD) and the Santiago office of Harvard's David Rockefeller Center for Latin American Studies. ELEMENTAL, the architecture firm formed around the goal of building a handful of the winning designs, has taken on a life of its own and branched out far beyond this initial vision, but Chileans with Harvard connections remain influential. The firm's principals include director Andrés Iacobelli, M.P.A. '01, and executive director Alejandro Aravena, a professor of architecture at Pontifical Universidad Católica de Chile who was a visiting professor at the GSD from 2000 to 2005. Support from Pablo Allard, M.A.U. '99, D.Dn. '01, director of Católica's undergraduate program in cities, landscape, and environmental studies, has also been instrumental.

The red-and-white row houses are located in the Renca district, less than half an hour by car from downtown Santiago. The high housing density of ELEMENTAL's projects allows for purchasing land close to the city center (one development fits 93 units

Rosa Estrella Ortega Roa has big plans for the unit where she lives with her two-year-old grandson. Although the walls and ceiling of her kitchen are still unfinished (below left), she has fenced in her front yard and filled it with plants, which she sells as her livelihood. And Ortega says this home, though unfinished, is a big improvement over her former makeshift home in the shantytown.



Above: Alejandro Aravena in his office. Left: A courtyard at the Renca development, with a tree planted by residents and surrounded by rocks that the residents also painted. They are building the park themselves, a symbol of pride in their new home.



Visit [harvard-mag.com/extras](http://harvard-mag.com/extras) for more images of and details on ELEMENTAL's projects.

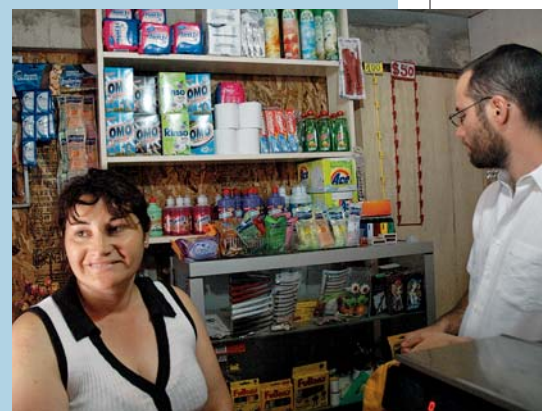
onto 1.2 acres). As a result, residents don't need to move to an outlying site an hour-long commute (or more) away from jobs. They remain in the same neighborhood, with the same neighbors. They don't have to find a different bus route to work, or enroll their children in different schools.

The government gives a subsidy of \$10,000 for each housing unit, an amount that must cover the cost of the land, building materials, and construction. Working within that limited ceiling, the architects construct much larger homes than that amount of money would normally buy, but leave the interiors unfinished. The houses have working plumbing, heating, and lighting, but bare concrete floors and plasterboard walls: ELEMENTAL provides the skeleton, but leaves the finishing touches to residents. Aravena is fond of saying each unit has "the DNA of a middle-class home." And, notes one resident, it is a vast improvement over her previous residence, with makeshift walls and a muddy dirt floor.

At the dedication ceremony for the Renca development in May, one of the residents gave a speech. For the first time in her life, she said, she felt proud to be Chilean.

One of ELEMENTAL's goals for the project was that the units increase rather than decrease in value over time. They didn't have to wait long to measure their success: the very day that residents were allowed to move in, some received offers of \$20,000—double each unit's cost.

Nobody accepted.



Marta Herrera, pictured with ELEMENTAL project manager Gonzalo Arteaga, has set up a small convenience store in the front room of her house at the Lo Espejo development.

Associate editor Elizabeth Gudrais traveled to Chile in October to report on projects involving Harvard faculty and alumni. Further reports from her trip will appear online and in future issues of the magazine.



tion of “highest interests” with “practical affairs” in the school’s mission of education for professional practice. In the current economic turmoil, Faust said, the HLS faculty had particular responsibilities, along with their colleagues in other schools, to offer advice at the beginning of

a long process of re-examining accountability, regulation, and fairness in the financial system and institutions that will emerge in the future. That work, she said, blends “practical affairs” with “conscious concern for what [Holmes] called ‘the highest interests of man’—not mere self-

interest, not just the pursuit of professional status or personal gain, but rather the larger ideals that inspire this school and the profession it serves: ideals of justice, of equality, of freedom, of respect for the rule of law, of dedication to advancing the common good.”

## Studying Schooling

IN 2006, Thomas Kane went to Joel Klein, chancellor of New York City’s public schools, with some unsettling news: teachers from the New York City Teaching Fellows program (which supplied nearly 30 percent of Klein’s new hires between 2003 and 2005) were on average no more effective than traditionally certified teachers. In fact, the professor of education and economics at Harvard Graduate School of Education (HGSE) had discovered, *no* certification program—neither NYCTF, nor Teach for America, nor the Peace Corps Fellows Program, nor traditional education schools—turned out better teachers than any other (see “Grading Teachers,” November–December 2006, page 18).

over time. Thus, Kane argued, tenure review should begin only after the district has enough data to tell whether a novice teacher could ever become an old pro. Kane wouldn’t remove the certification barrier entirely, he says, but he does advocate “moving the dam downstream, to where we actually have some information.”

Nevertheless, Kane remembers, Klein pointed out that it would be more convenient to separate the wheat from the chaff during recruitment. The chancellor further suggested that Kane and his colleagues (Jonah Rockoff from Columbia and Douglas Staiger from Dartmouth) set up an experiment that asked the sort of questions the school district wasn’t already asking applicants. Perhaps the researchers could find something to predict

teacher performance better than a standard résumé. Kane agreed. He wrote up a survey and then sent it out to teachers who had been on the job for less than a year. Klein “sold us on that study,” Kane marvels.

Kane’s Project for Policy Innovation in Education (PPIE; see [www.gse.harvard.edu/-ppie](http://www.gse.harvard.edu/-ppie)), slated to become a University-wide center, is one of several groups that are bringing Harvard’s analytic resources to bear on the problems besetting the nation’s public schools. From the Kennedy School, Shattuck professor of government Paul Peterson directs the Program on Education Policy and Governance (PEPG; see [www.hks.harvard.edu/pepg/index.htm](http://www.hks.harvard.edu/pepg/index.htm)), edits the policy and opinion journal *Education Next*, and studies the impacts of vouchers and

charter schools. Within the Faculty of Arts and Sciences, professor of economics Roland Fryer heads the Education Innovation Laboratory (or EdLabs; see [www.edlabs.harvard.edu](http://www.edlabs.harvard.edu)), where he designs experiments that offer cash incentives to students who excel academically. Together, their projects illustrate the opportunities, and the challenges, researchers meet when they try to better public education.

The questions a researcher can answer depend, at least in part, on the data available. And because school districts have traditionally been reluctant to share data with outsiders, studies have often focused on national numbers from the Census Bureau or the Bureau of Labor Statistics (BLS). “The key to the game was coming up with some new approach to the same basic data,” says Kane. “People were rediscovering the same fact over and over and over again.” For example, the Current Population Survey (run jointly by the BLS and Census Bureau) measures both income and years of schooling. As a result, Kane says, there are more scholarly papers on the economic benefit of extra years of education than anyone could possibly need. More recently, the No Child Left Behind Act, which requires math and reading tests between third and eighth grade, has provided a new pool of data for researchers to dive into.

Still, professors have to convince a district to open its files. “In fairness to the researchers,” points out Thomas Payzant, former superintendent of schools in Boston and current professor of practice at HGSE, “people in my world weren’t always the most welcoming. They were afraid the research might make them look bad.” Now, he says, schools are more eager to evaluate their programs using their actual data. The key, argues Kane, is to approach schools with an offer to solve the



Thomas Kane

This did not mean, Kane pointed out, that the district’s choices were unimportant. The real variance was *within* the programs: each trained some stellar teachers, each trained some duds. A teacher’s abilities, or lack thereof, become clear only

professor of government Paul Peterson directs the Program on Education Policy and Governance (PEPG; see [www.hks.harvard.edu/pepg/index.htm](http://www.hks.harvard.edu/pepg/index.htm)), edits the policy and opinion journal *Education Next*, and studies the impacts of vouchers and



## The President-elect

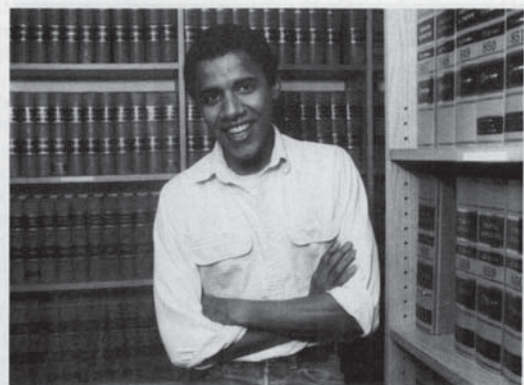
Speaking at Harvard Law School's (HLS) capital-campaign celebration on October 23 (see "Educating Professionals," page 58), President Drew Faust made a joke that used her skills as a historian, observing: "[I]t's quite possible that 12 days from now...Rutherford B. Hayes may no longer be the only right answer to the trivia question, 'What graduate of Harvard Law School was elected president of the United States?'" Barack Obama is J.D. '91. Given that Michelle Obama is J.D. '88, perhaps a whole new category of HLS-related First Family trivia is in order. (In the meantime, the *Chronicle of*

*Higher Education* noted that the Obamas, along with Vice President-elect Joe Biden and his wife, Jill Biden, make the first quartet of such leaders to have work experience in higher education—at, respectively, the University of Chicago, Widener University School of Law, and Delaware Technical and Community College.) Barack Obama was, famously, elected the first African-American president of *Harvard Law Review* in 1990; this magazine's coverage is shown here. In 1991, he was one of three petition candidates for the Board of Overseers on a slate advanced by Harvard-Radcliffe Alumni/ae Against Apartheid, which favored divestment of University investments in firms doing business in South Africa. (None of the three was elected). For more coverage of the president-elect's Harvard connections, see <http://harvardmagazine.com/alumni-in-the-news> for November 5, and the HLS website, [www.law.harvard.edu](http://www.law.harvard.edu).

## Rhodes and Marshall Scholars

College seniors Kyle Q. Haddad-Fonda (see "Buzzing In," page 67), of Issaquah,

# Brevia



Law Review president Obama: he and fellow editors are chosen on the basis of academic performance and a writing competition.

## A LANDMARK ELECTION AT THE HARVARD LAW REVIEW

The editors of the 103-year-old *Harvard Law Review* have elected their first black president. **Barack Obama**, son of a

Kenyan economist and an American anthropologist, is a Columbia graduate who spent four years heading a commu-

nity development project in Chicago before entering law school. Obama called his election a signal to black students at all levels that they can still achieve, although "discriminatory barriers remain formidable and there are tremendous educational problems, particularly for the poor. . . ."

## RESCUE MISSION

In an effort to boost recruitment of tenured and nontenured faculty in Afro-American Studies (AAS) and to develop long-range strategies to strengthen its faculty resources, Dean of the Faculty of Arts and Sciences A. Michael Spence has named five senior faculty members to the department's executive committee. The death in December of historian **Nathan Huggins** left AAS with only one senior and two junior faculty members, a

the faculty from 1930 to 1972. The latter was created by **John Wilmerding** '60, Ph.D. '65, Sarofim professor in American art emeritus at Princeton; he and Stebbins both studied with Rowland.

## ECONOMIC ADVISER.

President-elect Barack Obama has named Eliot University Professor **Lawrence H. Summers** to lead the National Economic Council. For the views of the former Secretary of the Treasury and president of the University on urgent issues, before the financial crisis worsened, see "The Economic Agenda" (September-October 2008, page 27).

## BEST BOOKS. Annette Gordon-Reed, J.D. '84,

won the National Book Award for nonfiction, for *The Hemingses of Monticello: An American Family*—edging out President



Annette Gordon-Reed

Drew Faust, a fellow finalist, author of *This Republic of Suffering*, about death in the Civil War. Frank Bidart, A.M. '67, was also nominated for his book of poems, *Watching the Spring Festival*. Subsequently, the *New York*

*Times Book Review* picked Faust's volume as one of the year's 10 best, along with *A Mercy*, the new novel by Nobel laureate Toni Morrison, Litt.D. '89, who read from the manuscript during Faust's installation service in 2007.

**RADCLIFFE ADVISERS.** The Radcliffe Institute for Advanced Study has named six faculty members who will help shape its programs and serve as liaisons to colleagues throughout Harvard. The humanities leaders are Lea professor of history **Ann Blair** and professor of history of art and architecture **Ewa Lajer-Burcharth**.

Washington, who concentrates in history and Near Eastern languages, and **Malorie Snider**, of Friendswood, Texas, who concentrates in biological anthropology, have been awarded Rhodes scholarships. **Julia Parker Goyer**, of Birmingham, Alabama, a 2007 Duke graduate now pursuing a doctorate at Harvard Graduate School of Education, also won a Rhodes. Separately, four seniors won Marshall scholarships: **Kyle Mahowald** of Fort Lauderdale, an English concentrator; **Emma Wu** of Camarillo, California, who focuses on neuropsychology; and two social-studies concentrators, **Andrew Miller** of Chicago and **John Sheffield** of Fayetteville, North Carolina.

## Nota Bene

**AMERICAN ART.** The Harvard Art Museum announced in November that it had raised \$10.5 million to endow the department of American art, including a curatorship named in honor of **Theodore E. Stebbins Jr.**, J.D. '64, Ph.D. '71 (who has held the position since 2002), an assistant curatorship, and an operations fund named in honor of **Benjamin Rowland**, who was on

The social-science advisers are Aetna professor of public policy and corporate management **Brigitte Madrian** and Ford professor of the social sciences **Robert J. Sampson**. The science leaders are professor of astronomy **Dimitar Sasselov** and professor of neurobiology **Rosalind A. Segal**. Creative-arts appointments are pending.

**MEDICAL MERIT.** Four faculty members have been elected members of the Institute of Medicine, the biomedical and health arm of the National Academies: professor of immunology and infectious diseases **Phyllis Jean Kanki**; Cabot professor of genetics **Raju S. Kucherlapati**; professor of surgery **Marsha A. Moses**; and Walcott professor of biostatistics **Louise M. Ryan**.



**Phyllis Jean Kanki**

**GATES GRANT.** As part of its support for the Grand Challenges in Global Health program, the Bill & Melinda Gates Foundation ([www.gatesfoundation.org](http://www.gatesfoundation.org)) in October funded 104 "explorations" grants to the tune of \$100,000 each: seed money for cutting-edge ideas deserving of initial, high-risk testing. Among the recipients are: professor of genetics **George M. Church**; professor of dermatology **Tayyaba Hasan**; and associate professor of systems biology **Roy Kishony** (all for work on limiting drug resistance); and research fellow in anaesthesia **Nikita K. Malavia** (for work on using nanoparticles to attack viral infections).

**FUND FLOWS.** As Harvard celebrates significant gifts in support of the arts and sciences (see pages 53 and 37), institutions

with similar agendas continue to benefit from their donors' largess. Nike founder **Philip H. Knight** and Penny Knight, who previously underwrote Stanford Graduate School of Business's new campus, pledged \$100 million to **Oregon Health & Science University Cancer Institute** for research—\$98 million of which is for use at the discretion of the institute's director. **Lorry I. Lokey**, founder of Business Wire, pledged \$42 million to Stanford's School of Medicine, complementing an earlier \$33-million gift, to build a stem-cell research center. **Ratan Tata** gave Cornell University \$50 million for fellowships for students from India and to support joint research on agriculture and nutrition with Indian universities. Yale announced a planned \$75-million India Initiative, and, separately, a new Institute for Biological, Physical, and Engineering Sciences. The University of Pennsylvania funded a \$50-million Neuroscience Initiative, an area where it has added 18 new faculty positions in recent years. And **David G. Booth**, who earned his degree from the University of Chicago Graduate School of Business in 1971, gave the school cash, an income stream, and equity in his firm worth a total of \$300 million.

**MASTERS MOVE ON.** Pforzheimer House master **James J. McCarthy**, professor of biological oceanography (who shared the Nobel Peace Prize in 2007 for his work on the Intergovernmental Panel on Climate Change), and co-master **Sue McCarthy** will step down at the end of the academic year, after 13 years of service.



**James J. and Sue McCarthy**

**MISCELLANY.** Harvard-Radcliffe Orchestra's music director, **James Yan-**

**atos**, who took up that post in 1964, will retire at the end of the academic year. The orchestra itself just celebrated its bicentennial (see "Two Centuries of Sound," May-June 2008, page 23)....Harvard Law School will move from letter grading to an Honors-Pass-Low Pass-Fail system, beginning with students who matriculate in the fall. In a joking reference to the change, at the school's capital-campaign celebration on October 23, Scott professor of law **Robert C. Clark**, the school's immediate past



**James Yanatos**

dean and a tough grader, alluded to the transition to the "wimpy Yale system" (which is also used at Stanford)....**Dan Shore**, who had served in an acting capacity



**Dan Shore**

since last May, in October was appointed the University's vice president for finance and chief financial officer....Harvard's new director of sustainability is **Heather Henriksen**, M.P.A. '08. A member of the task force that set a goal of reducing the University's greenhouse-gas emissions by 30 percent by 2016, she will now oversee measures to achieve that objective. She leads the newly named Office for Sustainability, successor to the Harvard Green Campus Initiative ([www.green-campus.harvard.edu](http://www.green-campus.harvard.edu))....Harvard Medical School has appointed **Gina Vild** associate dean for public affairs; she had held similar positions at Massachusetts General Hospital's cancer and women's health programs, and at Dana-Farber Cancer Institute.



**Heather Henriksen**

**HARVARD UNIVERSITY | DEPARTMENT OF Stem Cell and Regenerative Biology**

OVERVIEW | FACULTY AND RESEARCH | UNDERGRADUATE STUDY | GRADUATE PROGRAMS | RESOURCES | NEWS AND EVENTS

The Department of Stem Cell and Regenerative Biology (SCRb) is the first cross-school department located in both the Faculty of Arts and Sciences and Harvard Medical School. The Department's focus is the development, maintenance and repair of vertebrate tissues. Emphasis is placed on using these aspects of biology to inform the understanding of human diseases.

- Apply for the SCRb summer research
- Ask Moximer named on principal investigator on major stem cell to cancer
- Important new step toward producing stem cells for human treatment
- SCRb and HSCC researchers turn one form of adult tissue cell directly into another
- Renowned Technologist named young investigator by MIT's Technology Review

Click here to view upcoming events

SEARCH | CONTACT US | JOBS | FEEDBACK | HARVARD UNIVERSITY

**STEM-CELL STUDIES.** With a joint Faculty of Arts and Sciences (FAS)-Harvard Medical School department of stem cell and regenerative biology in place ([www.scrb.harvard.edu](http://www.scrb.harvard.edu)), work has begun to advance an undergraduate course of study in the emerging field. FAS's Faculty Council has reviewed a proposed concentration in "human developmental and regenerative biology," with legislation likely in the next few months. The department, which describes its focus as "study of the development, maintenance and repair of vertebrate tissues. How organisms, including humans, develop from a fertilized egg, maintain tissues in the adult body and repair dysfunctional or damaged tissue....," envisions launching the concentration this coming fall.



puzzles they're already working on.

He realizes, though, that he may not find what his sponsors want. They get a private briefing of his results before he publishes them, he explains, but "there's no opportunity to censor things." Once researchers make their findings public, Kane warns, they need to brace themselves for hostile reactions. "If you're doing well-respected but irrelevant work, where nobody really cares about the outcome, nobody's going to accuse you of being an advocate for one point of view or another," he says. "But the moment your work starts to have implications, there will be people who will start to question your motives."

The frequently rapid pace of leadership turnover in public schools also presents a challenge for academics. By the time professors finally corral enough grant money, their partners in the school administration may already be gone, hired by another

**"The moment your work starts to have implications, people will start to question your motives."**

district or fired. Or, "If you've got a superintendent excited about doing something," says Jon Fullerton, executive director of Kane's PPIE, "and you say, 'Great, we'll be back to you in a year to start the project,' you may not capture their imagination in the way you wanted to."

Fullerton would also like to see more researchers working with the same information. When assembling administrative data for a district (linking students and their test scores to particular teachers, for instance), he returns the newly legible data to the district. "If they want to redistribute it themselves, that's fine by us," he says. "That's one of the things that we're trying to see happen." The Kennedy School's Peterson, in fact, says that proprietary relationships between school districts and researchers make him nervous. "It's much better to do [what] the U.S. Department of Education does," he says. "They create a data set that's clean

and available to everybody. You'll get competing interpretations and analyses, but it's going to clear the air. In the long run, things begin to clarify, even if the debates are intense initially."

Few subjects are more politically fraught than school choice—which encompasses issues of charter schools and school vouchers. Peterson began studying school choice in a serious way in 1995, around the time that he launched his policy group. Most recently, he entered the debate surrounding Philadelphia's 2002 decision to turn over more than 40 of its troubled middle and elementary schools to a mix of non- and for-profit managers.

A 2007 study by the RAND Corporation found no differences between the non-profit and privately operated schools and the schools that remained under district control. Peterson, objecting to the way RAND handled the data, designed his own test. RAND compared the test schools to all of the schools under district control and included only students who stayed put throughout the test period, while Peterson compared the test schools to struggling district schools and kept in those students who changed schools. "To our surprise," Peterson says, "the nonprofits did much worse than the district's schools. And the for-profits did better." Students at the for-profit schools had learned the equivalent of an extra two-thirds of a year of math. Students in the nonprofits appeared to lag behind in both math and reading (although those results weren't statistically significant). But Peterson's scholarly findings didn't sway the district: last summer, Philadelphia decided to take back six of the for-profit schools and warned 20 other schools (both non- and for-profits) that they had only a year to show clearer results.

Peterson calls his research in Philadelphia "quasi-experimental": he could compare different managers, but the students weren't randomly assigned among them. He considers Roland Fryer's EdLabs more purely experimental. Funded in part by a grant from the Broad Foundation, Fryer is testing the effects of monetary incentives



**Paul Peterson**

on students. In both Washington, D.C., and New York City, some middle-school students can earn money for academic success; in D.C., good attendance and behavior count, too. In Chicago, Fryer's program gives high-school students a percentage of their earnings at five-week intervals and withholds the rest until the students receive their diplomas. "If we aim to establish true equality of opportunity in education, we must be willing to take risks and explore innovative strategies," Fryer said in a Broad Foundation press release. "The 'same-old' strategies have failed generations of students." (Fryer declined to be interviewed, saying he would like to wait until he has gathered his results.)

Kane, for his part, hoped to offer chancellor Klein and the New York City public schools a new hiring tool with his seven-part survey for new teachers. The 90-minute survey, more than 200 items long, included everything from an IQ test to a measure of how much time an applicant has spent with children (coaching, babysitting, etc.). "We call it our kitchen-sink paper," Kane jokes. Although no single factor separated the good teachers from the bad with pinpoint precision, the survey did have some predictive power. Especially promising was a sample math test with answers, designed by Kane's HGSE colleague Heather Hill, that required teachers not only to locate any incorrect responses, but also to find the source of the errors. Kane plans to keep looking for ways to spot good teachers before hiring them, offering his analytic expertise to public educators. "Working with quantitative data, and trying to answer questions with quantitative data, is something people around here know a lot about," Kane says. "It's what we do best."

# Making Mingling Manageable

by CHRISTIAN FLOW '10

MIDWAY THROUGH my senior year of high school, my father and I attended a welcoming event for already-admitted members of Harvard's class of 2010. We walked in, were given nametags and directions to the drink table, and were turned loose. Hello, Harvard Club of Baltimore.

Once I had my ginger ale, or water—or whatever it was that my 17-year-old self decided to drink—I remember being shocked by the realization that I had no idea what I was supposed to be doing. Navigating ballrooms filled with unknown people wasn't something they taught you in AP biology, and it certainly didn't make much sense to me. For one of the first times in my life, I was awash with the realization that talking to people could be stressful and demanding. (In the interests of transparency, I'm not counting any of the early times that I talked to girls, because I think those fall under a different rubric, and because often on those occasions I cheated the system through heavy preparation or by cueing myself with a notecard full of talking points.)

My father seemed a good deal more prepared to deal with the situation than I. I'm really not sure how much socializing the food scientists of the Beltsville Instrumentation Sensing Laboratory do, but the man apparently felt himself equal to the task of moving us to the center of the room and making us accessible to the masses. A bold move, I thought to myself, as I

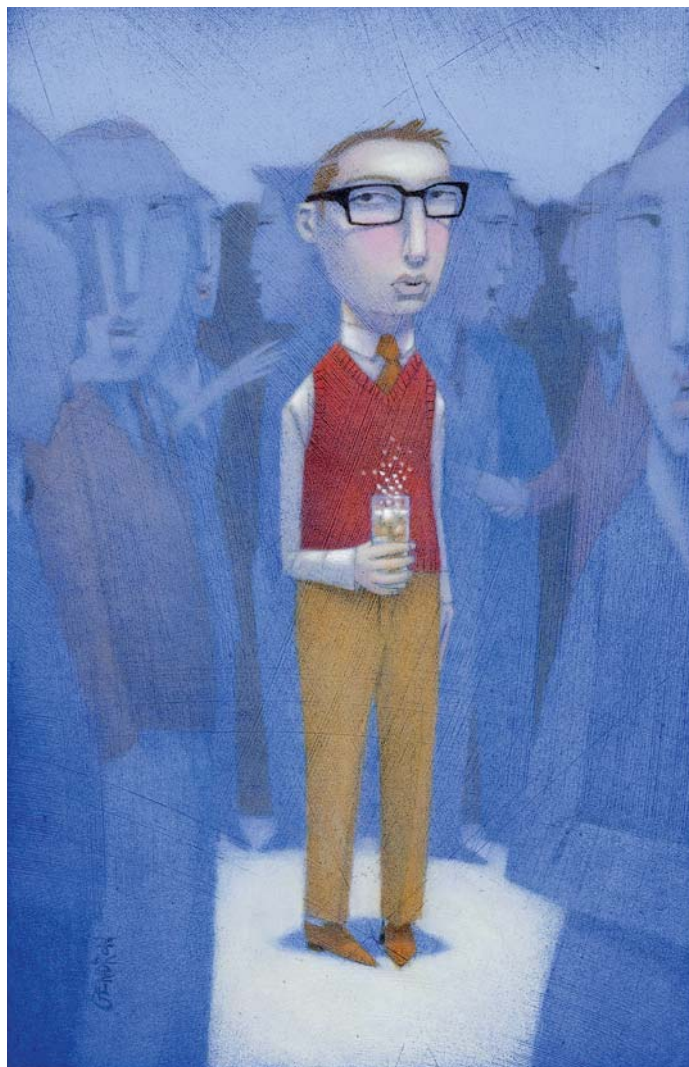
stood there dressed in a sweater vest, sagely nodding during breaks in the conversation and idly wondering when the food would be served. *Not well-suited for beginners.*

But begin I did. This was my introduction to the strange science of mingling: a discipline that demands moving through a room full of people you don't know, minimizing silences, and somehow contriving that a few of those present re-

member your name before the event is over. In a larger sense, however, it was a taste of something, a nagging sense of doubt—a mild discomfort, perhaps—that would become commonplace as I packed myself off to Cambridge and my post-secondary years. Never in my life have I thought harder about how human interactions work—the subtle forces that inform them, the framework that sustains them, the consequences that attend them—than in the two-plus years I have spent as an undergraduate.

I SHOULD PROBABLY NOTE at this point that I'm not particularly shy, particularly reflective, or particularly prone to self-doubt. So when I say I've "thought hard" about this stuff, I'm not suggesting that I've mulled it over on long walks by the Charles or sat in my bathrobe listening to doleful music and writing in my journal about it (I don't own a bathrobe). But it's hard to avoid these thoughts once you hit college. In the first place, if you went to a cozy prep school like I did, you quickly realize that the sort of commonality that existed in high school, where everybody was constantly tripping over each other in the same classes and on the same athletic teams, disappears quickly when there are 1,600 people in your class, and not 100.

All of a sudden, it's possible to know somebody and have remarkably little in common with him. The guy who introduced himself at an ice-cream





social freshman year; the one who sat two seats over in section last semester; the one you met at an uncomfortable, sophomore-year, final-club punch event—these people are not easy to talk to. Encountering them puts you at high risk of awkwardness: the state of having to labor unduly hard to maintain a conversation. *Are you still majoring in social studies? Really? Yeah, I've heard it is a lot of reading.*

## I thought if I flouted the conventions of mingling, I could set my mind to more lofty concerns.

*Me? Classics...Yeah... [silence]...So how are you doing otherwise?*

Besides being remarkably boring, these sorts of uneasy exchanges make me wonder—somewhat uncomfortably—just how much common ground good conversation requires. Which then usually makes me wonder—even more uncomfortably—how petty and ridiculous it is that I worry about these things at all. Aren't there people in the world with bigger problems on their plates than whether they can get through a conversation? How disappointing is it that I spend time thinking about these things in the first place? And wouldn't I, at the very least, be a better person if I spent my mental energies on other things?

Unfortunately, this sort of perspective is not entirely easy to maintain when, from the admissions-information session right on through, you're reminded that Harvard's biggest asset is its people. Harvard's people. *Get to know them. Network.* How? Well, why not by mingling?

At some point it stopped being optional. Freshman orientation events, student organization events, recruiting events, departmental teas: you can't avoid these things. They're sunk into Harvard like crimson dye into a class banner. To encourage more student-professor interaction, there are professor appreciation dinners in the residential Houses, accompanied by mingling in the master's residence. There are mingling all-stars: 20-year-old flesh-pressers with campaign experience who rest two fingers on your elbow while they're talking to you. And sometimes there are even prizes on the line for the mightiest minglers: part of the

Rhodes scholarship vetting process, I have been told, is a cocktail event.

EARLY ON in my Harvard life, I made a subconscious decision just to give up on it all. I wasn't going to have it anymore. I wouldn't play by the rules. I would transcend them. Or, more aptly, I would burn them to the ground. I guess I thought if I flouted the conventions of mingling and

bad dining-hall conversation, the awkwardness couldn't touch me, and I could set my mind to more lofty concerns (I'm still trying to sort out what exactly these were).

I tried to steer clear of mingling events. If I did have to go, I skipped the pleasantries and started asking questions that were calculated to throw the conversation off the beaten path. *Forget where you're from—do you know any good jokes? What's the biggest fight you've ever had with your parents and why? What sort of a path did you tread to get to Harvard?* I tried to go no limits. I was Ken Kesey and his bus full of Merry Pranksters, but instead of doing LSD and messing with policemen, I was speaking a little too directly and messing with the bounds

of conversation. And like the Pranksters, I cultivated a disdain for smooth operators and politicking. If you played within the system, you perpetuated the system. And that meant more horrible mingling events.

Of course, the thing about Kesey and his band was that, in time, the hated hierarchies and conventions of the outside world managed to find their way onto the bus after all. The seemingly visionary often becomes nothing but a new kind of conformity. Likewise, when I look hard at my conversational boundary-pressing, it occurs to me that, in its own way, it had the contrived and strategic air I claim to detest in standard cocktail-party conversation; that its benefits were somewhat limited (assistant professors don't like to be asked about their tenure bids); and that it was, at its root, nothing but a calculated defense mechanism. Instead of confronting awkwardness and inanity, I had been finding my own inane way to run away. So there's more work to be done. That's fine: I'm still only a junior. I'll give mingling another try. But I'm reluctant. It's downright difficult. And notecards full of talking points just don't work at cocktail parties. ▢

---

*Berta Greenwald Ledeccky Undergraduate Fellow  
Christian Flow '10 is going to Staples to get some more notecards.*

---

## Buzzing In

IT'S A SPORT where the mind is the only muscle worth working, where players flaunt their ability to memorize textbooks, and where hand exercises have been prescribed as a means of improving buzzer speed. It's called Quiz Bowl. And, big surprise, Harvard is good at it.

Led by a cast of characters that includes seniors Kyle Haddad-Fonda, Adam N. Hallowell, Julia Schlozman, and John D. Lesieutre—all four of whom played on the team that won a national Quiz Bowl championship last spring—Harvard's program has built itself into an organized outfit that boasts a treasurer, fundraising schemes, occasional recruiting efforts, and, says Haddad-Fonda, about 25 regular participants. The cur-

rent lineup is complemented by such luminaries as sophomore Meryl Federman, who last summer won \$75,000 on *Jeopardy!*; second-year law student Bruce Arthur, who competed as an undergraduate with powerhouse University of Chicago; and freshman Dallas R. Simons, a former star on the high-school circuit.

"The team easily goes 10 or 12 deep," says Dennis Loo, a Virginia Tech graduate and former Quiz Bowler who, when not acting as the Harvard team's de facto head coach, supports himself by gambling professionally. "You have any of a dozen people who can be mixed and matched into a top-25 team at nationals. It's a nice problem to have."

As a testament to its stability, Harvard is able to field multiple teams at the small tournaments held most weekends on the



**Sophomore Meryl Federman and senior Adam N. Hallowell keep themselves busy during a break in the action at Brown University's early fall tournament.**

BRENDA LIN



**Bruce Arthur, the only graduate student on Harvard's team, is in his second year at the Law School. A history expert, Arthur played for the University of Chicago's storied Quiz Bowl team as an undergraduate.**

BRENDA LIN

Northeast Quiz Bowl circuit—a Boston-centered division of the national circuit that, according to current club president Andrew Watkins '11, includes approximately 15 regularly participating schools, some with multiple squads. The team also travels occasionally to larger tournaments hosted in one of the nation's six other regional circuits (a group from Harvard recently attended a tournament in Minnesota), and to national competitions (last year's national championship was held in St. Louis).

Harvard's current successes are not unprecedented: the team was a top competitor on the national stage in the mid 1990s, and—given its standing as a haven for Presidential Scholars and those with perfect SATs—is traditionally heavy on talent. But the program is also subject to dormant periods, and was menaced by dwindling participation and a lack of organizational enthusiasm as recently as three years ago.

The club's present standing has much to do with Haddad-Fonda, who arrived in town representing one-third of what some call the greatest recruiting class in Quiz Bowl history (the class of 2009 included the captains of the top three high-school teams in the nation). By his sophomore

year, the soft-spoken history concentrator had begun recruiting efforts and had organized the Harvard Fall Tournament—a Quiz Bowl competition for high-schoolers. (The registration fees help fund travel and expenses for the Crimson team).

The work has paid dividends. Harvard's depth and corresponding range of specialties (Lesieutre is expert in mathematics, Federman in literature, Arthur in history) is helpful in a sport that, despite requiring little physical activity, is surprisingly exhausting. Though there are multiple formats, Quiz Bowl is most commonly played in rounds of 20 questions (with each participating team generally supplying a round's worth as part of its registration). Teams equipped with handheld buzzers attempt to ring in before their opponents for a chance to answer each question (called a "toss-up") and its corresponding three-part bonus. Although the answers are short, the toss-ups themselves are typically lengthy, complicated, and delivered at lightning speed. They



**Seniors John D. Lesieutre, Kyle Haddad-Fonda, Julia Schlozman, and Adam N. Hallowell are national Quiz Bowl champions.**

require a thoroughgoing familiarity with highly academic subject matter in history, science, literature, and the arts

(Quiz Bowl's televised predecessor, *College Bowl*, faltered in the early 1990s in large part—according to the Quiz Bowl community's Wikipedia entry—because of concerns about light-weight questions). The best questions have "pyramidal-ity," with clues arranged in decreasing order of difficulty so better teams can work out the answer sooner. But no matter how good a team is, the heavy-duty material and quick pace of the game take a toll: focus and fatigue can flag even in the half-hour to 45 minutes that it takes to play a round. Schlozman, an art-history specialist, admits to zoning out on questions outside her area so she can save her energy.

Despite the exertions they require, few Quiz Bowl competitions bring substantial material rewards. Winning teams and top individual performers, especially at the smaller tournaments, garner nothing more than used books—a prize that is at once an indicator of the financial state of Quiz Bowl and of the sport's raw, quirky intellectualism. Still, the emotional payoff for many top players is great. Former club president (and recently minted Rhodes scholar; see page 63) Haddad-Fonda points to the feeling of community that he has encountered during his years on the circuit, beginning in high school. "It's a fun group of people—a lot of us know each other from high school, from playing on different high-school teams," he says. "One of the reasons that I like traveling to tournaments is that I like seeing these people. We're rivals but we're also friends."

~ C.F.



## SPORTS

# Big D

*Defensive prowess helps the football team to another Ivy title.*

**A**RCTIC CONDITIONS prevailed at Harvard Stadium on November 22, and so did the home team. With a titanic defensive performance, Harvard shut out Yale, 10-0, topping off a 9-1 season and securing a share of the Ivy League championship.

Harvard won the Ivy trophy a year ago and shares the 2008 title with Brown. The Bruins had narrowly defeated the Crimson, 24-22, in the teams' first league game of the season (see "Bumps in the Road," November-December 2008, page 78). Were it not for a 13-3 loss to Yale in early November, Brown would have gone unbeaten in the league and won the Ivy title outright—so Harvard owes the Eli a debt of gratitude.

Seven of the last eight matchups with Yale have gone Harvard's way. Not since its teams won eight of nine games played from 1912 to 1922 has the Crimson enjoyed such dominance.

SWIRLING WINDS and frozen turf limited both sides' passing attacks and played hob with kicks, making it likely that the team with the best ground game and strongest defense would win the 125th Harvard-Yale game. That could have been Yale, with an offense built around record-setting tailback Mike McLeod, and with the top-ranked defense against scoring in all of Division I-AA. But Harvard had the upper hand from the start. After taking the opening kickoff, the Crimson offense moved downfield on a series of handoffs to sophomore back Gino Gordon, fronted by a hard-hitting interior line. Midway through the first quarter, Gordon scored the game's sole touchdown after an Eli

back misplayed a windblown punt and junior cornerback Derrick Barker fell on the ball at the Yale 13-yard line. The touchdown was the first given up by the Yale defense in more than 10 quarters of

midfield fumble and drove to the Yale 12-yard line. With two seconds left in the half, Long came on for another field goal try, but his kick was deflected.

Harvard had held Yale to 80 yards of total offense in the game's first half, with McLeod accounting for 50 of those yards. The Crimson defenders amped it up in the second half, allowing only a net 10 yards of total offense. McLeod, who had broken every major Yale rushing record in four years as a starter, gained just 12 yards on seven carries, and was held to minus-two yards in the fourth quarter.

**HOT PURSUIT:** Defenders Schultz (52), Curtis (91), and Barnes (25) closing in on Yale back Mike McLeod.



play. Sophomore Patrick Long's point-after gave the Crimson a 7-0 lead.

Harvard then sprang an onside kick, recovered the ball, and mounted a drive that ended with a missed field goal try. By the time Yale took its first snap, the Crimson offense had run 24 plays, and more than 11 minutes had elapsed.

Yale had a clear scoring chance in the second quarter, set up by McLeod's 11-yard run, his longest of the day. But with the ball on the Harvard three-yard line, Yale's kicker hooked a 20-yard field goal attempt. Harvard then forced a

At the start of the final period, an 11-yard run by Gordon set up Harvard's second and last score, a 23-yard, into-the-wind field goal by Long.

The Bulldogs got one last scoring chance with four minutes to play. Sophomore back Gio Christodoulou, whose 87-yard punt return had netted Yale's only points in the 2007 game, fielded a punt at his own 44 and sped down the sideline. Harvard's Derrick Barker caught him at the eight-yard line, saving a touchdown. The defense held for three plays, only to have a pass-interference penalty give Yale a first-and-goal at the two. Another pass attempt misfired, and on the next snap Harvard ran an all-out blitz. Linebacker Eric Schultz got a solid hit on quarter-

### A Banner Year

Holy Cross	W	25-24
at Brown	L	22-24
at Lafayette	W	27-13
Cornell	W	38-17
Lehigh	W	27-24
at Princeton	W	24-20
at Dartmouth	W	35-7
Columbia	W	42-28
at Penn	W	24-21
Yale	W	10-0

back Hart, the ball came loose, and tackle Carl Ehrlich pounced on it. With two minutes to go, Harvard ran out the clock.

Gordon ended the day with 168 yards rushing on 39 carries, both career highs. All-Ivy quarterback Chris Pizzotti '08 ('09), the mainspring of the offense for two and a half seasons, completed 12 of 21 passes for 109 yards, and rushed for another 74 yards on 16 carries. Harvard had 370 yards of total offense to Yale's 90, and ran 79 plays against 40 for Yale. McLeod gained 62 yards on 21 carries, while Eli quarterback Brook Hart completed 4 of 11 passes for 36 yards.

GAME-SAVING BAILOUTS had been a defensive specialty. Another forced fumble had preserved a 27-24 win over Patriot League rival Lehigh at the Stadium in October. A late drive had brought the visitors to Harvard's 14-yard line. With a first down and 46 seconds to play, quarterback J. B. Clark set up to pass, then lit out for the goal-line. Defensive end Peter Ajayi managed to grab the back of Clark's jersey, and the ball flew into the hands of linebacker Glenn Dorris. Game over.

In a rain-soaked battle at Princeton a fortnight later, the defense quashed a late-game rally when blitzing linebackers Dorris and Schultz threw the Tiger quarterback for a 13-yard loss. Harvard left town with a 24-20 win.

A week before the Yale game, Harvard's escape artists did it again at Penn's Franklin Field. With the Quakers threatening at the Crimson 12-yard line and 10 seconds to play, cornerback Ryan Barnes came up with his third pass interception of the day to save a 24-21 victory.

Team captain Matt Curtis, a tackle, had trailed Schultz and Ehrlich on that last defensive hit of the Yale game. After the play, the Stadium's new jumbotron scoreboard showed Curtis and Ehrlich, his Pforzheimer House roommate, in a giddy sideline hug. "Carl had the ball," Curtis



**IVY TROPHY:** Harvard celebrates its first repeat title since 1982-83.

### Final Ivy League Standings

	Ivy and overall records		Points for/ against	
Harvard	6-1	9-1	274	178
Brown	6-1	7-3	269	170
Penn	5-2	6-4	190	151
Yale	4-3	6-4	197	105
Princeton	3-4	4-6	183	214
Cornell	2-5	4-6	185	246
Columbia	2-5	2-8	171	245
Dartmouth	0-7	0-10	129	333

said later. "I ran to Carl and I wouldn't let him go, and he wouldn't let go of the ball. I told him how much I loved him and how this was the only way for it to end. It was just amazing to have my last play in a Harvard uniform be of that caliber, with my two best friends."

CURTIS EARNED AN H as a freshman and over the next three seasons played almost every defensive minute of every game. An all-state player at Lynn English (Massa-

achusetts) High School, he applied to Harvard with an admissions profile that set him apart. Both parents had struggled with drug and alcohol abuse, ending the marriage when Curtis was two. He and his older sisters and brother grew up in poverty, living in public housing and sometimes subsisting on Salvation Army handouts. "Most kids hated school," Curtis would recall. "I loved it. It was warm, they had heat, and they fed me."

His father died of cancer before Curtis's senior year at Lynn English. His mother remained drug-addicted. With tutoring, Curtis raised his SAT scores by 300 points and was accepted at Harvard. Though he needed coaching on tying a necktie when he arrived, he found the transition easy, in part because of the friendliness of the football squad: "I had 110 brothers in the locker room every single day." On the field, Curtis was in his element. Linemate Peter

Ajayi saw him as "the quintessential football player, someone you notice immediately for his speed and strength. Any play he can possibly make, you know he's going to be there."

Curtis made the all-Ivy second team in 2006 and was a first-team selection in his junior and senior years. Despite being double-teamed by blockers on almost every play this season, he ranked second in the league in tackles-for-loss.

WHAT DID CURTIS read into his team's shutout of Yale? "If you'd showed me the statistics at the beginning of the game, I'd have thought it would have been more like last year," he said afterward. "But Yale's an amazing team, very tough. Right down to the last second, they were fighting."

At Yale Bowl a year earlier, Harvard had blown out a previously undefeated Eli squad, 37-6. Aside from the obvious scoring differential, Curtis had a point: the defensive statistics for both games were much alike, and even a bit more one-sided this time. In 2007 Yale had the ball for



22:01 minutes, against 20:45 in 2008. The Blue was held to 66 yards rushing and 43 in the air a year ago, against 54 yards and 36 yards a year later. Yale made six first downs in 2007, five in 2008. It didn't lose a fumble in the 2007 game, but lost three this time. Never in the modern history of the Harvard-Yale series have the sons of Walter Camp had their clocks cleaned so thoroughly in consecutive games.

**TIDBITS:** Quarterback Chris Pizzotti was selected by the league's eight head coaches as the Ivy player of the year. The fifth-year senior, whose strong right arm helped Harvard to consecutive championships, was one of seven Crimson players named to the all-Ivy first team. For the second year, Pizzotti received the Crocker Award as the team's most valuable player.

**Armed and dangerous:** Pizzotti finished with impressive career statistics. He passed for 5,675 yards, had 427 pass completions, and threw 37 touchdown passes. The only Crimson quarterback to put up bigger numbers has been Neil Rose '03 (5,949 yards, 455 completions, 41 touchdown passes)....Harvard won 20 of the 21 games that Pizzotti started and finished.

**Aerial circus:** Pizzotti threw 17 touchdown passes this season, five of them covering more than 50 yards....Junior Matt Luft led Harvard's receivers with 54 catches for 914 yards and five touchdowns. He had more than 100 receiving yards in five of his games....In the Colum-

## Sports Roundup

### Men's Soccer

The Crimson (12-6-0, 5-2 Ivy), undefeated at home, just missed capturing the Ivy title. In post-season NCAA play the thirtieth-ranked booters fell in the second round to the University of South Florida, number eight. Four players made the first all-Ivy team, including junior Andre Akpan, who has now surpassed Chris Ohiri '64 as the Crimson's all-time leading scorer.

### Women's Soccer

The women booters (10-3-5, 5-1-1 Ivy) won the Ivy League championship by beating Columbia 2-1 on a penalty kick with nine seconds left in double over-

time before falling in the opening round of post-season NCAA play. Freshman Melanie Baskind was named Ivy League rookie of the year.

### Men's Basketball

After a 3-11 season last year, the netmen (3-2, 0-0 Ivy) were picked to finish fourth in the Ivies this year, thanks to an expected boost from a strong recruiting class. But in early November, freshman star Andrew Van Nest suffered a season-ending shoulder injury that may hurt the hoopsters' chances in Ivy play.

### Women's Basketball

After winning a piece of the Ivy title two years in a row, the netwomen (4-2, 0-0 Ivy) hope to repeat in 2009. With its strong roster of returning players, Harvard was again a preseason favorite.

bia game Luft caught six passes for 110 yards and a touchdown, while sophomore Levi Richards made seven receptions for 103 yards and two scores. Harvard hadn't had two 100-yard receivers in a game since November 1975.

**On call:** Liam O'Hagan, an honorable-mention all-Ivy quarterback in his sophomore year, missed most of the 2007 season with an injury and was granted a fifth year of eligibility this season. He saw spot duty in goal-line situations and on kicking teams....With Harvard leading Dartmouth 26-0, O'Hagan stepped in at quarterback under orders to run the ball. He picked up 66 yards on his own, and the offense closed out a 368-yard rushing day with 32 consecutive running plays—a sequence perhaps unmatched since the legalization of forward passing in 1906.

**It's up, it's good:** Patrick Long's field goal in the Yale game was his thirteenth of the season, tying a single-season record shared by Charlie Brickley '15 (1912) and Matt Schindel '08 (2004). His 45-yarder at Lafayette was Harvard's longest since the 1993 season.

**House of horrors:** The 24-21 win over Penn was Harvard's fourth in five years, but only its second at Franklin Field since 1980....Though first place was at stake, the game drew only 7,352 spectators.

**Hot ticket, cold day:** The Yale game was a Stadium sellout, as it has been each year since 1998. Official attendance was 31,398.

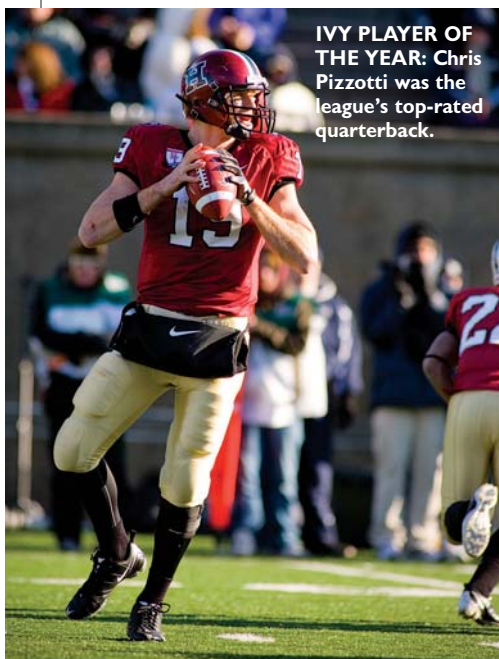
...Yale hadn't been blanked by Harvard since 1992, nor shut out by anyone since 1997....Four days later, Jack Siedlecki retired as coach. He'll remain at Yale as an assistant director of athletics. Siedlecki, 57, had a record of 70-49 over 12 seasons; he was 4-8 against Harvard.

**Laurels:** Since the start of formal Ivy League play in 1956, Harvard has won six outright championships and shared the title seven times. The most recent back-to-back championships came in 1982-83.

**Streak:** Crimson teams have won seven or more games in each of the past eight seasons—an Ivy League record, and Harvard's best eight-year run since 1903-1910.

**Honors:** Joining Chris Pizzotti on the all-Ivy first team were captain and defensive tackle Matt Curtis '09, cornerback Andrew Berry '09, linebackers Glenn Dorris '09 and Eric Schultz '09, offensive tackle James Williams '10, and receiver Matt Luft '10. Freshman defensive back Matt Hanson was named Ivy rookie of the year....Defensive tackle Carl Ehrlich, of Bethesda, Maryland, and Pforzheimer House, will captain the 2009 squad.

**Viva voce:** Noah Van Niel '08, the versatile fullback of the 2007 team, returned to the Stadium to sing the national anthem before the Yale game. A tenor, he is currently training for an operatic career at Philadelphia's Academy of Vocal Arts. You may never hear the anthem sung better at a sports event.  
~ "CLEAT"



**IVY PLAYER OF THE YEAR:** Chris Pizzotti was the league's top-rated quarterback.

ALUMNI

# Taking It to the Streets

*Teny Gross teaches kids nonviolence.*



This fall, gunmen on foot shot a six-year-old boy, reportedly while aiming for his mother's girlfriend because she was in a rival project—an accident racked up to “the cost of the game,” David says. “I tell them, ‘You’re willing to go down for something that doesn’t even belong to you—a building made of bricks, and land

**Teny Gross (left) and colleague Sal Montiero with youths at Kennedy Plaza, in downtown Providence, where some 2,000 students switch school buses**

owned by the government—nothing you can even pass on to your kids. Why would you do that? Does that make sense?” But it

gives them a sense of purpose when there is nothing for these kids to do. If it were not for Teny and the institute, there would be no role models or people to help kids like I was.”

**D**AVID C. grew up in Providence, Rhode Island. With no father around and a drug-addicted mother, he moved through foster homes, gathering a fragile sense of worth from a gang of friends. “All I aspired to was being important on the street,” he says. “There was nothing about a future.” He spent five years in juvenile detention and a few in prison, and still has a reputation among local cops for living up to his nickname, “Devious,” for once escaping through the police-station roof.

At 37, he is still hanging out with the kids—in the schools, at their homes, the hospital, or the mall. But as a street worker with the city’s Institute for the Study and Practice of Nonviolence, he now prevents the very violence he once provoked.

Like David, most of the street workers are ex-gang members or former local criminals, says Teny Oded Gross, M.T.S.

’01, the institute’s founding executive director. Their backgrounds make them uniquely suited for what it takes to thwart a single act of violence: hours of face-to-face counseling of kids during their most heated, impulsive moments—when they might otherwise pull out a gun and do irreversible damage. “My job is not pretty—it’s not sending kids to Harvard, or anything fancy,” Gross explains. “It’s about keeping kids in this city alive between the ages of 14 and 23.”

The kids are even willing to die for their housing projects. “These beefs are territorial, not ethnic or racial,” David explains on a drive through the darkened streets to visit kids at the Chad Brown Housing Development. A group of teenagers eyes the passing car. “They look at every occupant, every car,” he says. “If you see one slow down with people inside wearing hoods, then you worry. That makes your hair stand on end.”

Gross is a philosophically minded, long-time street worker himself. During the 1990s anti-violence campaign known as the Boston Miracle, he was active in the Dorchester neighborhood, doing community outreach, gang mediation, job creation, and skills training. He also taught kids to document their lives with photography. Building partnerships—with the police, for example, despite local animosities—is a particular strength.

Being a former Israeli Army sergeant helps. “I’ve been both a victim of violence through [the legacy of] the Holocaust and then was top dog when it came to the Palestinians. I’m part of the weak and part of the strong; that’s a very humbling experience,” says Gross, who moved to Boston to be near his sister in 1989. “I always see things through the eyes of the kids *and* through the eyes of the police. Keeping those tensions in your head—some people would say that is what makes you good at this kind of work.”

The institute where he works now was



established in 2001 by Father Ray Malm and Sister Ann Keefe, the pastoral team at St. Michael's Church, in the poor neighborhood of South Providence. Catalyzed by growing youth violence and the death of 15-year-old Jennifer Rivera—shot in the head in front of her house to prevent her from testifying in a pending murder case—they drafted a broad mission: “To teach by word and example the principles of nonviolence and to foster a community that addresses potentially violent situations with nonviolent solutions” based on the work of the Reverend Martin Luther King Jr.

Gross has built the nonprofit organization from a few unpaid nonviolence trainers into a \$1.2-million agency with a 28-member team. By the end of the year, he plans to open a four-story headquarters in St. Michael's vacant convent, with tutors, a gym, art and theater classes, and plenty of musical outlets—including a sound- and video-recording studio—thanks to \$4.5 million in contributions from private donors, foundations, the city, and the state. “We’re really good at going in and intervening,” Gross says, “but to do the work of really transforming someone takes a longer time. This building will focus on youth development.” Besides running the street crew, institute staff members operate a nonviolence training program (Gross has worked with young people from as far away as Belfast and Guatemala) and a victims’ support center; they also mediate conflicts in families and schools and coordinate a summer-jobs program.

“Teny is the single most important partnership we have to fight crime and violence,” says Providence police chief Dean M. Esserman, a former prosecutor and Dartmouth graduate. “Everywhere I go—to every shooting, the ER, in the classrooms, to every wake, to every funeral—I see Teny, even if it’s two o’clock in the morning. He and the street workers are about building sustained relationships of trust. The kids know that they love them—they don’t get that from many adults.”

With a diverse population of 175,000, Providence is a small city in a tiny state. But it has the third-highest child-poverty rate in America (tied with New Orleans);

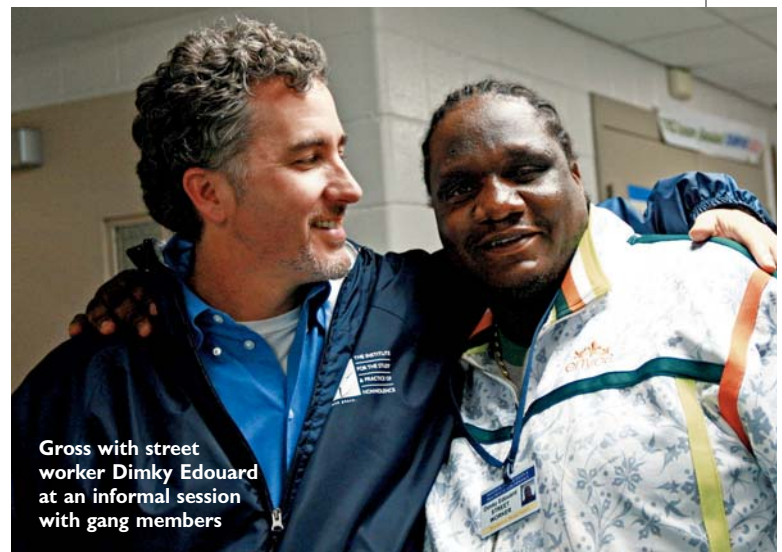
more than half the city’s public-school children qualify for free lunches. Moreover, the state topped the nation for unemployment this fall, with an 8.8 percent rate, and reported a record number of home foreclosures. “We are two cities—one of wealth and one of poverty,” Gross says, “and they rarely meet.” Violence, he asserts, is sparked by environmental, not biological, factors: “In my mind it’s very clear: There is not a lot of opportunity—economic or otherwise—and these kids see failure all around them all the time. It’s traumatizing. They feel pushed into a corner and sometimes violence is the only way they feel they have some control over their lives.”

Violent crime in Providence fell overall between 2002 and 2007; Esserman attributes that to community policing, increased accountability—and the work of the institute. The hottest spot is in the West End, where most of the city’s 40 gangs (with their estimated 1,600 members) stake out their claims among the largest concentration of poor and minority families. “The problem is not all gangs—that is just the *People* magazine view,” cautions Esserman. “The problem is that the new drug in American culture is violence. Our children are growing up with it all around them—the media, the video arcade, in their neighborhoods. Their homes are not sanctuaries.” With the economy spiraling downward, Gross worries about the coming year. “Every day we see people just out of jail, trying to get out of gangs, and it’s extremely desperate for them to even find work,” he says. “We’ve got our finger in the dike now, but the pressure could be too much.”

GANGS AREN’T THE SOLE FOCUS. Plenty of kids need helping staying in school and coping with family troubles. One night in November, a mother came to the institute

with her 12-year-old son, who was being bullied by his older half-brother—recently returned from the Dominican Republic and on the cusp of joining a gang. As she met privately with David, Gross talked to the boy about cartoons and art, and they went through a book of photographs of Rhode Island’s civic and community leaders. “He’s hungry for this kind of interaction; he’s very sensitive,” Gross says later. “He would probably do well in a middle-class, artistic life. But he’s being harassed, and if you fail to protect him the way adults are supposed to, he could become very tough very quickly.” (Gross has since contacted the chairman of the board of the community art center to get the boy into some classes.)

He believes in the redemptive powers of art and culture. Just as Gross used to ferry Boston youth to hockey games, then over to Harvard Square’s bookstores and cafés,



now David routinely takes his charges to museums, concerts, and to Brown University events. Often, a simple jaunt to suburbia “can be a revelation for these kids,” says David. “I like to show them how people can get along and shop in stores and feel free and happy without looking over their shoulders and worrying about getting shot at. To the kids, this life is like TV.” Adds Gross, “Becoming middle class and learning just takes thousands of interactions. It’s all about exposure.”

GROSS’S HOME is filled with etchings, paintings, and sculptures from his family,

friends, and wife, Julia Clinker, a photographer who teaches at the Rhode Island School of Design and takes primary care of their two young sons. It was while earning a bachelor's degree in fine arts from Tufts and the School of the Museum of Fine Arts in 1990 that Gross, who had plans "to photograph how the police treated people," first met Boston community activist Reverend Eugene F. Rivers III '83; he ended up teaching art to kids through the Azusa Christian Community (begun as a Harvard student group in the 1980s), where Rivers was pastor, and its affiliated Ella J. Baker House, which serves high-risk families in Dorchester. During the next decade, he was based primarily at Baker House as a teacher, street worker, and community organizer.

The work was faith-based, but "whether you believe in God or not was (and is) not critical," says Gross, who is basically agnostic after years of studying religion.

"I believe that people are capable of living up to their potential if given love and attention and opportunities. I connect with the communities of faith because they are dedicated around principles that I agree with—that every human life is worth something and worth doing something about."

Divinity School "was a great place for me to ask new questions; I'm a much more lethal debater thanks to Harvard," he says. He was especially drawn to professors Harvey Cox and Kevin Madigan and former faculty member Father J. Bryan Hehir. He took "Justice" with Bass professor of government Michael Sandel and still listens to the lectures through his iPod while jogging. "Harvard was a respite from the streets," he continues, "and it renewed me to come and do this": move to Providence (where his wife grew up) and take on the job of building up the nascent institute.

Gross's own religious background is complicated. His mother, a Serb, deplored organized religion. His father, a Croatian Jew, once aspired to become a Catholic priest largely because he was hidden in a monastery during World War II (his mother died in the Holocaust); his eventual move to Israel was to be near his sole remaining relative, a sister. "My father's the one who taught me all about Jesus," Gross says. "It was not an observant Jewish household; we also celebrated Christmas. But in Israel, you begin to absorb the culture and I did. I still love the slowing down on Fridays. I really miss that."

Though far from being a violent young man, Gross says he has always tended to "question everything" and was somewhat rebellious. He recalls breaking a window, slapping a teacher, throwing a kid over a table—"typical, aggressive kid stuff"—and says fighting at school and on the

## Anthony Woods: Taking a Stand

**When Anthony C. Woods, M.P.P. '08,** delivered the graduate English address at Commencement last June (shown at right), he had just made a momentous decision: to publicly acknowledge his homosexuality and effectively end a military career that had spanned nine years and two tours in Iraq.

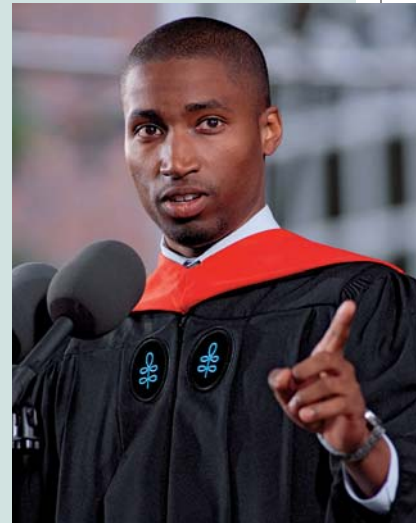
Woods did not mention this decision in his speech. Soon after, though, the West Point graduate and U.S. Army captain informed his commander that he was gay, initiating his dismissal under the "Don't ask, don't tell" policy. In early November, Woods learned he would be "eliminated" from the army on the grounds of "moral and professional dereliction" and required to repay \$35,000—the amount of his scholarship to attend the Kennedy School.

A military career may seem a curious choice for a young man who is gay or even questioning his orientation. But for the son of a single mother, growing up in an Air Force town in northern California, acceptance to West Point was an honor—and an opportunity—beyond compare. Woods focused on the professional to the exclusion of the personal; with the country at war, that wasn't hard. But two years at Harvard gave him space to think—and to face his dismal prospects for upward mobility in an organization with an explicit homosexuality ban and a strong culture of marriage and children. Even if he had stayed closeted, he says, "It wasn't going to be possible for me to fit the mold, and I knew that because of that, there was going to be a glass ceiling."

Even after the invasive court-martial process—the military conducts interviews with friends and family to verify homosexuality, presumably to prevent fraud, for instance by soldiers who wish to avoid an additional tour in Iraq—Woods is reluctant to malign the officers who carried out his investigation. He says they are simply implementing a policy. Change might come from Congress, but Woods believes the Supreme Court is a more likely venue: "I think it's going to take a landmark court case, like *Brown v. Board of Education*."

As recently as a year ago, Woods thought life after Harvard would include at least five more years of military service. He had been accepted to teach at West Point—"a huge, huge dream," he says. Now, even as he waits to hear whether his discharge will be honorable or dishonorable, Woods has begun a new chapter: while working as staff secretary to New York governor David Paterson, he is applying to law school. He dreams of a role in changing the policy that cut his own dreams short. But his decision to come out already constitutes a significant first step. "If this policy's ever going to go away," he says, "they have to lose talented people. It's not going to go away unless it hurts."

— ELIZABETH GUDRAIS



STU ROSNER



playground was the norm. "In the U.S. now, these juvenile actions would have resulted in a criminal record," he adds. "But I was also full of life and was interested in philosophy and ethics and the world. I read literature and studied in school."

Childhood, he thinks, should be about making mistakes, and about adults helping you learn. Tightening the grip of authority rarely helps. "The British got tough on the Irish—and you got a rebellion. We got tough on the Palestinians and we got a rebellion," he asserts. "You put someone to the wall and usually they will have to act back."

Violence and aggression are inherently exciting, he notes, especially to young men. He recalls driving a van-load of Boston kids home once: they saw their enemies out the window and "It was like a battalion reaction—they got all excited and started talking about who they were and what they did, and how they were going to get them," he reports. "These crews challenge each other like military units. They have their enemies and their friends, their fights, and their girlfriends, and the drugs and the drinking—it's these same things that excite people all around the world."

In such an environment, how does nonviolence compete? Gross mentions the case of one 19-year-old in Providence, "VA," a suspected murderer assigned to David. VA's mother is in federal prison on drug charges and his best friend was ambushed and killed last summer while sneaking up on a rival crew. "VA is a real leader," Gross points out. "What would he be if he'd grown up in an affluent suburb? A jock, a star athlete, captain of the team. The kids who go to Harvard are not

## A Special Notice Regarding Commencement Exercises

Thursday, June 4, 2009

### Morning Exercises

To accommodate the increasing number of those wishing to attend Harvard's Commencement Exercises, the following guidelines are proposed to facilitate admission into Tercentenary Theatre on Commencement Morning:

- Degree candidates will receive a limited number of tickets to Commencement. Parents and guests of degree candidates must have tickets, which they will be required to show at the gates in order to enter Tercentenary Theatre. Seating capacity is limited; however, there is standing room on the Widener steps and at the rear and sides of the Theatre for viewing the exercises.

*Note:* A ticket allows admission into the Theatre, but does not guarantee a seat. The sale of Commencement tickets is prohibited.

- Alumni/ae attending their major reunions (25th, 35th, 50th) will receive tickets at their reunions. Alumni/ae in classes beyond the 50th may obtain tickets from the Classes and Reunions Office, 124 Mount Auburn Street, sixth floor, Cambridge.

- For alumni/ae from non-major reunion years and their spouses, there is televised viewing of the Morning Exercises in the Science Center and at designated locations in most of the undergraduate Houses and professional schools. These locations provide ample seating, and tickets are not required.

- A very limited supply of tickets will be made available to all other alumni/ae on a first-come, first-served basis through the Harvard Alumni Association, 124 Mount Auburn Street, sixth floor, Cambridge 02138.

### Afternoon Exercises

The Harvard Alumni Association's Annual Meeting convenes in Tercentenary Theatre on Commencement afternoon. All alumni and alumnae, faculty, students, parents, and guests are invited to attend and hear Harvard's President and the Commencement Speaker deliver their addresses. Tickets for the afternoon ceremony will be available through the Harvard Alumni Association, 124 Mount Auburn Street, sixth floor, Cambridge 02138.

—Jacqueline A. O'Neill, University Marshal

passive wimps—they're very aggressive, very driven."

But for street kids, he says, that sense of power too often "comes through mowing people down with an Uzi. I think what we're pushing for is a more evolved form of aggression." ~ NELL PORTER BROWN

## Comings and Goings

UNIVERSITY CLUBS offer a variety of social and intellectual events, including Harvard-affiliated speakers (please see the partial list below). For further information, contact the club directly, call the HAA at 617-495-3070 or 800-654-6494, e-mail [clubs@harvard.edu](mailto:clubs@harvard.edu), or visit [www.haa.harvard.edu](http://www.haa.harvard.edu).

On January 12, the Harvard Club of San Diego hosts the Reverend Peter Gomes, Plummer professor of Christian

morals, who talks about "Nearly 40 Years On: A View From the Memorial Church."

On January 29, at the California Academy of Sciences in San Francisco, visiting Harvard professors discuss "What Might We Know: Science in the Next 20 Years." University provost Steven E. Hyman will moderate the discussion of such topics as stem-cell research, global health, and energy and the environment. Panelists will include professor of surgery and neurology Jeffrey D. Macklis, earth and planetary sciences professor Daniel P. Schrag, and Strong professor of infectious disease Dyann F. Wirth. The event is organized by Kat Taylor '80 and the Harvard Alumni Association, along with the Harvard clubs of San Francisco and Silicon Valley. (Registration through the HAA is required.)

On February 5, the Harvard Club of Broward County welcomes Timothy Colton, Feldberg professor of government and Russian studies and director of the Russian Research Center, for a discussion on "How to Deal with a Resurgent Russia." And McKay professor of computer science Harry Lewis talks about "Blown to Bits: Your Life, Liberty, and Happiness after the Digital Explosion" for the Harvard Club of Maryland on February 28.

## A Record-Breaker Passes

**Walter Seward, LL.B. '24**, who died on September 14, a month shy of his 112th birthday, was the longest-lived Harvard alumnus known to University records. He practiced law into his nineties; for his final visit to the Law School, in 2004, Dean Elena Kagan declared Walter Seward Day in his honor (see "The Oldest Ever?" January-February 2006, page 79, for further details.)

# FDR's Digs



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

**N**O SOONER had the citizenry chosen Barack Hussein Obama, J.D. '91, to be their forty-fourth president, than pundits began comparing him to the thirty-second one. "Suddenly, everything old is New Deal again....F.D.R. is in," declared Paul Krugman in an op-ed piece in

the *New York Times* headlined "Franklin Delano Obama." *Time* put a beaming Obama costumed as Roosevelt on its cover, and other media piled on the theme.

FDR, A.B. 1904, LL.D. '29, is in at Harvard, too—and about time, some would say. While there are various tributes scattered around the place to his distant cousin Theodore, A.B. 1880, LL.D. 1902, the twenty-sixth president—the rich Theodore Roosevelt Collection in Houghton Library, most notably—no memorial to Franklin exists. But if the necessary funds can be raised in these depressed times, that lack will be remedied within a year (to mark progress, go to [www.fdrsuite.org](http://www.fdrsuite.org)). Judith and Sean Palfrey, master and co-

master of Adams House, imagined restoring the suite of rooms in what is now B-entry—two bedrooms, sitting room, and bath—that Franklin and his mother, Sara, furnished luxuriously and that he occupied as an undergraduate. One year ago the Palfreys found just the volunteer to spearhead the project, Michael Weishan '86, an Adams alumnus, landscape designer, writer, and



former host of *The Victory Garden* on PBS. He specializes in piecing together historical landscapes from archival sources, exactly the sort of research needed to rebuild Roosevelt's digs. When restored, they will serve as a memorial museum and as remarkable rooms for University guests. Perhaps Franklin Delano Obama would enjoy a stay.

ALSO RAN: Independent candidate Ralph Nader, LL.B. '58, Obama's fellow Law School alumnus and rival to succeed George W. Bush, M.B.A. '75, left his home in Winsted, Connecticut, early on October 25 to stump in Massachusetts. He aimed that day to set a Guinness World Record for most speeches in 24 hours. To attain the goal, he had to give at least 15 spontaneous speeches at least 10 minutes in length on different topics at different venues and with at least 10 people in attendance who hadn't come with him. His campaign headquarters reported next day that he had triumphed. Taking questions, signing up supporters, and fundraising along the way, Nader delivered 21 speeches in as many municipal jurisdictions, speaking for a total of at least 255 minutes to more than 1,000 people. Among his stops were a deli, a farmers' market, a library, and the front of the Federal Reserve Bank of Boston, where he called "that monstrous bailout bill...taxation without representation." If Nader could keep up that pace for the entirety of a presidential campaign—say, the campaign of 2016—might he become the ninth person with a Harvard degree (see "Brevia," page 63) to serve as president?

~PRIMUS V



A restorer of lost landscapes works to replicate FDR's suite of rooms as it looked in 1900.





.





.









## LETTERS

(continued from page 8)

Union. Russian translations of Wilbur's and Viereck's poetry also appeared that year in the *Literaturnaya Gazeta*, along with Yevtushenko's unprecedented "Babi Yar," prompting both aesthetic freedom and human rights.

The popularity of this exchange helped to prompt Khrushchev's November 1962 decision to authorize the uncensored publication of Solzhenitsyn's *One Day in the Life of Ivan Denisovich*. The influence came full circle when Harvard invited Solzhenitsyn to campus as its 1978 Commencement speaker, where he championed "the integral spirit" shared by all humans. The opening of Lambert's article recalls how Wilbur became a poet instead of writing seventeenth-century European history, but we should remember that Harvard's poets have played no small part in changing the course of world history.

VALERIE VIERECK GIBBS, M.T.S. '72  
Columbus, Ohio

JOHN ALEXIS VIERECK, '68  
Culver City, Calif.

LAMBERT made a common error: incorrectly labeling Wesleyan University as Wesleyan College. I had the privilege of taking Richard Wilbur's Shakespeare course in the late '50s at Wesleyan, one of the highlights of my undergraduate experience. I can attest that his teaching was as expressive and precise as his poetry, and that I learned to enjoy reading Shakespeare as much as watching it performed. Thanks for reinforcing the memory.

DAVID V.B. BRITT, M.P.A. '67  
Amelia Island, Fla.

## VICTORIAN TREACLE

JUST TO NOTE how people can react differently—I was quite surprised to read of President Faust's selection of "All things bright and beautiful" as a hymn to commemorate ("Morning Prayers: All Creatures," November-December, page 65). The song takes an absurd view of evolution both biological and geological, and with its verse about ordering the estate of the rich man in his castle and the poor man at his gate, it is a classic example of the use of religion in justifying inequities in society. To me as a young person in England where the school day started with a Christian service—and the rest of the day was spent learning about the

marvels of nature in a rational way—this popular and pretty song symbolized much of what was wrong about official religion.

STEPHEN PORDES, Ph.D. '76  
Glen Ellyn, Ill.

PRESIDENT FAUST is right to say that the hymn is steeped in Victorian romanticism. But it also shows another side of the Victorian era. The 1840s were the time of the Chartist movement and great unrest among working men. The third stanza of the hymn is this:

The rich man in his castle,  
The poor man at his gate,  
God made them high and lowly,  
And ordered their estate.

WILLIAM C. WATERHOUSE '63, Ph.D. '68  
State College, Pa.

PRESIDENT FAUST put the matter so eloquently. She reminded us of our place in, and our responsibilities to, the creation around us. I would add only that to put into practice our desire to preserve creation, we need to think carefully about our material consumption and its impact on the living natural resources of the planet. The only way to consume and have economic growth while preserving the natural earth is to make sure it is done in a sustainable way.

JOHN F. SCHIVELL '63, Ph.D. '68  
Princeton, N.J.

## AMPLIFICATIONS

ROBIN PRESSLEY-KEOUGH of Animal Adventures points out that the Texas coral snake ("Animals Speak Color," November-December, page 42) is *venomous*, not *poisonous*.



KORY ROBERTS

Amplifying the same issue's "Errata and Amplifications" (page 10), David French, Ph.D. '74, notes that Ethiopia was colonized, by Italy, from 1936 to 1941. Also in the same issue, "Slavery's Sway" (page 20) attributed a database of shipping records to Emory professor David Eltis; Barbara Solow, then a researcher at Harvard, was also a principal investigator.

## Harvard Magazine

### FEATURED PROPERTY



Make your vacation home stand out—become our next **Featured Property!**

Reach 225,000 affluent and trusted readers—the alumni, faculty, and staff of Harvard University.

For pricing information go to:  
[harvardmagazine.com/featuredproperty](http://harvardmagazine.com/featuredproperty)  
or call 617-496-6686.

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION. Publication title: *Harvard Magazine*. Publication no. 0095-2427. Filing date: 10/10/08. Issue frequency: bi-monthly. Number of issues published annually: 6. Annual subscription price: \$30. Complete mailing address of known office of publication and headquarters or general business office of the publisher: 7 Ware Street, Cambridge MA 02138. Contact person: Felicia Carter, 617-496-6694. Publisher: Catherine A. Chute, Harvard Magazine, 7 Ware Street, Cambridge MA 02138. Editor: John Rosenberg, Harvard Magazine, 7 Ware Street, Cambridge MA 02138. Managing Editor: Jonathan Shaw, Harvard Magazine, 7 Ware Street, Cambridge MA 02138. Owner: Harvard Magazine Inc., 7 Ware Street, Cambridge MA 02138. Known bondholders, mortgagees, or other security holders: none. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during preceding 12 months. Issue date for circulation data below: September-October 2008.

	Avg. no. copies each issue preced. 12 mos	Single issue nearest to filing date
A. Total no. of copies (Net press run)	243,517	246,092
B. Paid and/or requested circulation		
1. Paid/req. outside-county mail subscriptions stated on Form 3541	236,937	239,543
2. Paid in-county subs.	0	0
3. Sales through dealers and carriers, street vendors, counter sales, and other non-USPS paid distribution	3,869	4,023
4. Other classes mailed through the USPS	0	0
C. Total paid and/or requested circulation	240,806	243,566
D. Nonrequested distribution by mail		
1. Outside-county as stated on Form 3541	172	164
2. In-county as stated on Form 3541	0	0
3. Other classes mailed through the USPS	0	0
4. Nonrequested distribution outside the mail	265	0
E. Total nonrequested distribution	437	164
F. Total distribution	241,243	243,730
G. Copies not distributed	2,274	2,362
H. Total	243,517	246,092
Percent paid and/or requested circulation	99.8%	99.9%

I certify that the information above is true and complete.  
Catherine A. Chute, Publisher

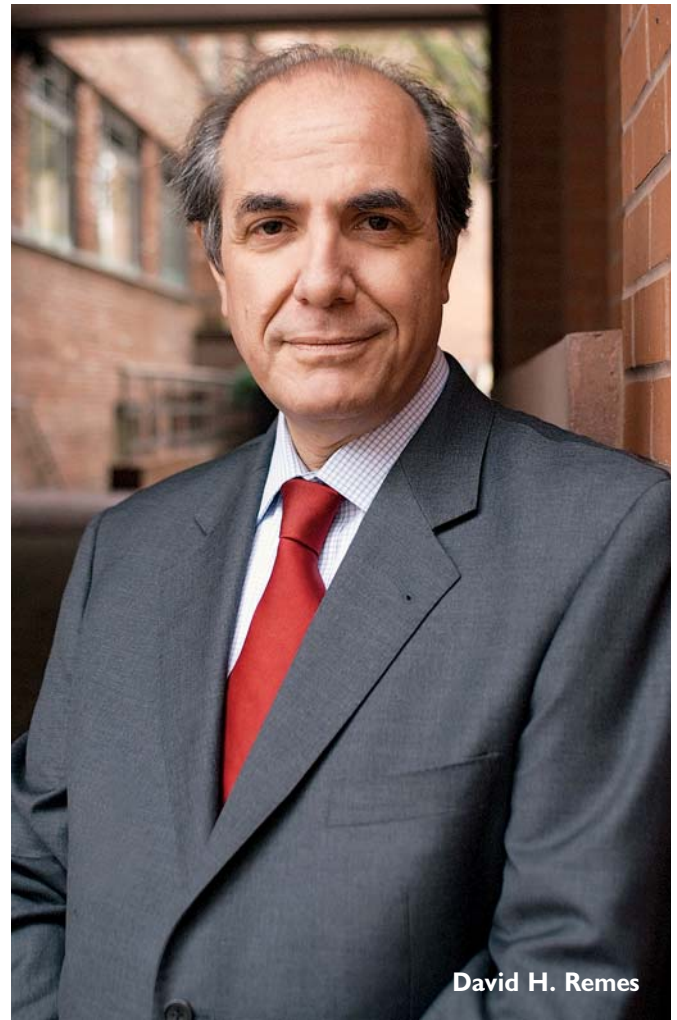
Heymann forcefully rejects the third alternative—creating a national security court or other novel statutory system for civil detention of terrorists. “The problem with these schemes, even when created by legislation and administered by the judiciary, is the vagueness of the standard for detention,” he asserts. The United States runs the risk of “creating the type of regime...that has proved a dangerous failure in other Western countries” and that, in the international arena “would constitute an unparalleled assertion of executive power to seize and detain people living in other countries, compared to asserting a right to try the individual for violation of our criminal statutes,” he writes. “The gains from this regime would have to be very great to warrant the departure from hundreds of years of Western traditions in this way. They simply are not. If we can extradite and try more than a dozen powerful paramilitary Colombian warlords for drug trafficking charges, we can and should do the same with supporters of al Qaeda and its affiliates.”

## THE PITFALLS OF PREVENTIVE DETENTION

DAVID H. REMES, J.D. '79, an attorney representing 17 Guantánamo prisoners, warns that “This idea of setting up a new system and doing it ‘right’ has a deceptive appeal, because it appears to offer a sensible middle ground between the abuses and outrages committed by the Bush administration and the soft-headed idealism of civil libertarians. Everybody loves the approach that rejects ‘the extremes of the left and the right.’ But the world isn’t divided into one extreme versus another extreme. It’s divided into right and wrong.” Remes scoffs at the idea of “preventive detention” as a justification for holding his clients. “Are we talking about some form of pre-crime?” he asks. “That is what some very decent and thoughtful academics and others are proposing. The idea was last proposed by Attorney General John Mitchell in the Nixon administration,” he says, “to deal with supposed threats to domestic security from within. It was roundly rejected as contrary to our most basic values.”

Remes, who gave up a partnership at Covington & Burling LLP to found Appeal for Justice, a nonprofit human-rights litigation firm, represents (with his former firm) 15 Yemenis at Guantánamo. He also represents, together with Reprieve, a British human-rights organization, two other detainees: an Algerian fighting repatriation because he fears torture or death, and a 61-year-old Pakistani businessman who was abducted in Thailand. He sharply criticizes the way the government captured these men, the way they have been treated subsequently, and the evidence on which they continue to be held. He began filing habeas review petitions on behalf of his clients in July 2004, after the *Rasul* decision. All along, the government has maintained that his clients are enemy combatants, he says, but has been “fighting tooth and nail against ever having to prove its allegations in a court of law. All the public knows,” he says, “are the *allegations*, because the government has kept all of its *evidence* secret.”

“It’s absolutely critical to determine reliably whether you have apprehended a civilian or a warrior,” he continues. “That determination has to be made fairly. You can’t simply sweep someone up and define him as a warrior, which is what the Bush administration did.” Even after *Rasul*, he says, the government cherry-picked the evidence that its Combatant Status Review Tribunals



David H. Remes

could review to justify detention—“which made it a rather one-sided affair, even overlooking all the other flaws.” After the *Boumediene* decision, the government threw all the CSRT evidence away, says Remes, and filed a new set of accusations, with a new pile of evidence to support them. “They added allegations, they dropped allegations, they scuttled some evidence, and they added other evidence,” he says. “It’s really a travesty.”

And yet, Remes says, it is the same *type* of evidence. Lawyers like Remes, who represent the detainees, are the only ones outside of government who have seen the evidence firsthand. Remes can’t discuss it directly: it is all classified, held in a secure facility. But he says that virtually everything that the government relies on to call these men enemy combatants consists of statements by the prisoners themselves or statements about the prisoners by other prisoners. Many of these statements were elicited using torture, he says, or by “promising prisoners early release or a pack of cigarettes or a better cell.” Remes mentions Muhammad al-Qahtani, whose interrogation logs were published in *Time* magazine, and who was made to bark like a dog, wear women’s underwear on his head, suffer extremes of hot and cold, and go for long periods without sleep. “The government showed him a picture book and said, ‘Okay, tell us—who are the terrorists at Guantánamo?’ And al-Qahtani simply said, ‘Him, him, him, him, and him.’ And other prisoners did the same thing.”

Remes says that, while going through the government’s evi-



dence, he has found instances where several prisoners, shown the photograph of another prisoner, each identify the man in the picture as al Qaeda, but give him different names. The government concludes that they all know the man, but by different aliases, rather than concluding that *none* of them actually knows the man. Remes also maintains that the use of torture, which is known to produce false confessions from people who have no information, makes anything they say unreliable. “That means that if they *are* terrorists, they are rendered practically unconvictable,” he says, “and if they are not, they have suffered a gross injustice.”

Forty percent of the detainees who remain at Guantánamo are Yemenis, he notes, because the United States has been unable to work out an agreement with Yemen for their return; by contrast, 90 percent of the Saudis and all of the Europeans have been returned, even though the U.S. government viewed most of these men as enemy combatants. “My point being,” Remes says, “that whether or not you are an enemy combatant seems to have nothing to do with whether or not you get released.” Two of his clients were cleared for release in February 2006. They are still at Guantánamo. Other men who have not been cleared for release have been sent home.

The reality at Guantánamo, he says, is that—so far—release has hinged on diplomacy, not justice. “People always ask me, ‘Are your clients guilty or innocent?’ And I ask them, ‘Guilty of what?’ And people really can’t articulate what it means to be guilty. They may say, ‘Well, guilty of terrorism.’ And I ask, ‘Well what do you mean?’ And there is a pause. And then they say, ‘Well, attacking the United States.’ But few if any of these men have attacked the United States. The ones who allegedly did are on trial before the military commissions or they are dead.

“Certainly if you were involved in the World Trade Center attack or the bombing of the USS *Cole* or U.S. embassies or you threw a grenade at an American soldier or shot at an American convoy, you have attacked the United States,” Remes continues. “No question that you should be brought to justice. But taking the Taliban’s side in the civil war against the Northern Alliance, or doing relief work, or spreading the word of Islam in Afghan-

istan—how do these make you an enemy of the United States? “The government has been so successful since 9/11 in portraying these men as the worst of the worst, as vicious killers, that people simply take that as a given. Most of these men were fish caught in a net when the U.S. started bombing Afghanistan and the Northern Alliance started advancing.”

At that point, Remes explains, “the U.S. was offering \$5,000 bounties to any Afghan that could turn over terrorists. So you had a lot of Afghani bounty hunters picking up Arabs and selling them to the United States, simply asserting that the men were Taliban or al Qaeda. Similarly, many men were picked up by Pakistani border guards when they came through the mountains and sold to the United States.” Five thousand dollars, he notes, is a huge sum in Afghanistan: “The U.S. propaganda was, ‘You’ll be set for life.’” Almost all of the men held at Guantánamo were seized in this way, he says; only about 5 percent were captured by U.S. forces.

Remes believes that “a lot of what is going on at Guantánamo and Abu Ghraib, and in the court system here, is less about whether these individuals are terrorists than it is about whether the executive branch can do whatever it wants, free from any accountability to the other branches of government. I don’t buy the thesis that the administration’s big mistake was not going to Congress to authorize what it was doing. Whether an activity has political legitimacy or not is beside the point. It’s what’s being legitimized that counts.”

The story of what happened to one man at Guantánamo—Parhat, the Uighur who released his wife from having to share in his captivity—may come to a resolution soon. A federal appeals court is expected to rule in January on the possibility of releasing him and the 16 other Uighurs into the United States. But the issues underlying Parhat’s story—how a democratic society preserves its values and protects its citizens when faced with an unconventional threat—will not go away, and the president-elect and his eventual successors will likely be grappling with them for years to come.

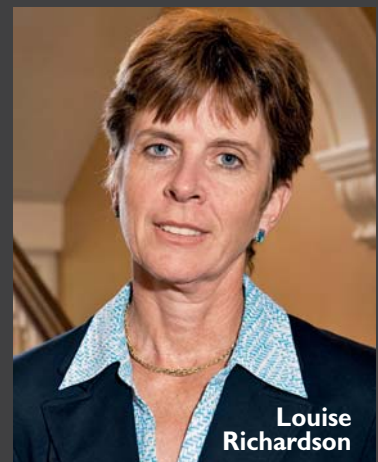
*Jonathan Shaw '89 is managing editor of this magazine.*

## Principled and Pragmatic Counterterrorism

IF AMERICANS WANT TO CONTAIN TERRORISM, we must not abandon our democratic values, says Louise Richardson, the departing executive dean of the Radcliffe Institute for Advanced Study (she becomes principal of the University of St. Andrews, in Scotland, in January). There is a false belief, she has written in *What Terrorists Want*, that democratic societies, because of the “freedoms granted citizens” are “peculiarly vulnerable to terrorism” and that those freedoms “therefore must be curtailed.”

This is wrong on principle, she said in a recent interview, but also for pragmatic reasons. Like declaring war, it not only rewards “the adversary’s action by demonstrating its power,” it undermines one of the best counterterrorist strategies known, which is to separate terrorists from the communities in which they operate. Terrorists understand this, she says. A message from an al Qaeda leader to a deputy in Iraq, for example, urged him to end beheadings not because they were immoral or gruesome, but because they were undermining support in the Muslim community. Likewise, the treatment of prisoners at Guantánamo is “an ethical

and moral travesty that undermines our claim that we believe in democracy, that we believe in individual rights, when we so clearly deny due process to hundreds of people,” Richardson says. “We’re in a competition, if you like, with the extremists for the support of these moderate populations, and we have been losing that battle.” By overreacting, “we can do ourselves far more harm than terrorists can ever do to us.” (For more on Richardson’s alternative approach to containing terrorist threats, see the Web Extra, “Counterterrorism and Democracy,” at <http://harvardmagazine.com/extras/counterterrorism>.)



**Louise Richardson**



# A Lovers' Picnic

*As a winter antidote, partake of "the most romantic picture in all Persian art."*

**T**AKE HEART. Fancy that you sit on this carpet holding hands with your lover in a Persian spring garden. Your servant offers wine in a golden bowl. Musicians and dancers amuse you. Take heed of the inscription above the canopy, patterned with its exuberant arabesque. The lines by the fourteenth-century Persian poet Hafiz were translated by the historian of the Safavid dynasty Martin Bernard Dickson as "A rose without the glow of a lover bears no joy;/ Without wine to drink the spring brings no joy."

*Lovers' Picnic, Painting from a Manuscript of the Divan [Collected Works] of Hafiz is an unsigned miniature, measuring 7.5 by 4.9 inches, attributed to Sultan Muhammad by the late Stuart Cary Welch Jr. '50, G '54, and dated about 1526-27. It is in ink, opaque watercolor, and gold on paper. Welch gave the painting to the Arthur M. Sackler Museum, a part of the Harvard Art Museum, in 2007.*

Sultan Muhammad was "a powerfully inventive and expressive artist," to the eye of Mary McWilliams, the museum's Calderwood curator of Islamic and later Indian art. *Lovers' Picnic*, said Welch, is "probably

the most romantic picture in all Persian art, with one of the liveliest arabesques: dazzling, deeply moving, and wonderful."

The painting rejoins other parts of the *Divan* manuscript that Welch gave Harvard earlier, most notably its exquisite lacquer book covers, text block, illuminated frontispiece, and two other paintings.

Thanks to Welch, Harvard shares another of the manuscript's four surviving paintings, Sultan Muhammad's *Worldly and Other-Worldly Drunkenness*, with the Metropolitan Museum of Art in New York.

Cary Welch died of a heart attack last August at 80 after running to catch a train in Hakodate, Japan. He was curator emer-

itus of Islamic and later Indian art at the Harvard museum, which he transformed through gifts of almost 400 works of art. He had previously been special consultant in charge of the Islamic art department at the Met. He had immense artistic discernment and virtually invented the field of the study of Safavid painting and drawing. He bought his first Indian drawing at the age of 11. When he came to Harvard College, he was dismayed to discover no courses in Indian or Islamic art, so he taught himself: by reading, by traveling, and by seeing well. He wrote books, lectured to students, and distributed enthusiasm, but he was no academic. He once wrote to a fellow connoisseur, "I know, from experience, that you are too alive for the academic world.... Don't sign yourself up for dreary years of academia. Leave that stuff to the eunuchs." ▽





You're already a valued member  
of a winning team when you  
work with Beijing, challenge Houston,  
negotiate with London, debate Cupertino,  
and collaborate with New Delhi.

You engage. You recharge.  
And then you bring it back to your business.

Spark.

# HARVARD

The programs at Harvard Business School Executive Education exist for one reason. The impact you will make when you get back to work. Three tiers of comprehensive leadership programs. Each with a global perspective of best business practices and ideas. All designed to spark tangible business results. [www.exed.hbs.edu/pgm/spark/](http://www.exed.hbs.edu/pgm/spark/)

WHERE THE BEST AND BRIGHTEST GET BETTER AND BRIGHTER



HARVARD  
BUSINESS  
SCHOOL

EXECUTIVE EDUCATION



Daniel Bernhardt, Hollywood.  
Doesn't need a life coach.



The Patravi T-Graph in 18 K rose gold with chronograph, big date and power reserve display is a perfect example of Carl F. Bucherer's unique philosophy. As an independent family business in Lucerne since 1919, our passion for perfection and love of detail have never changed. Also available in stainless steel.

[www.carl-f-bucherer.com](http://www.carl-f-bucherer.com)

[info@cfnorthamerica.com](mailto:info@cfnorthamerica.com)

To locate an authorized retailer nearest you, please call 800 395 4306



**CARL F. BUCHERER**

FOR PEOPLE WHO DO NOT GO WITH THE TIMES.