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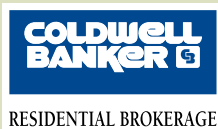
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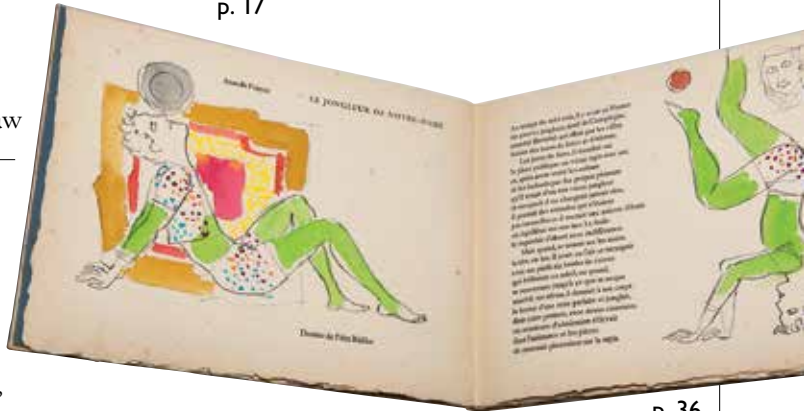
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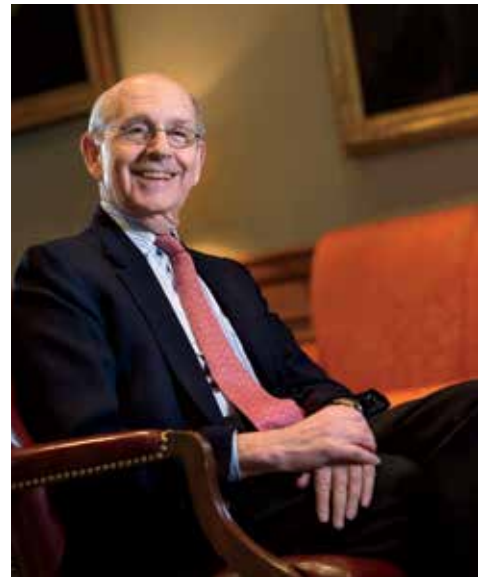
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On the cover: *Rafflesia arnoldii*
Photograph by Paul Kennedy/Getty Images

Cambridge 02138

Privacy, gender agendas, the Horsehead Nebula

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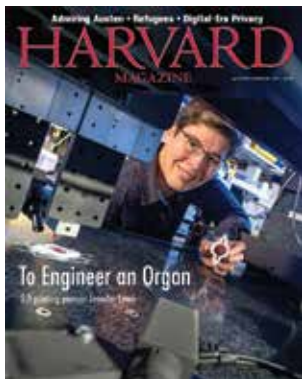
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DEMOCRACY DETAILS

RE: Lincoln Caplan's article "A Conservative Counter-revolution" (January-February, page 69), reviewing Michael J. Klarman's *The Framers' Coup*.

The limits of the available evidence—about 90 percent of the actual words of the debates at the Convention are probably lost, as Caplan paraphrases Klarman saying—complicate the task of divining the Founders' intent. The difficulties the readers of such a dense scholarly book will have, when even a reviewer like Caplan has trouble distilling that point, are evident. Without knocking the challenge he faces, I do have to call out a confusing line about the Founders' collective undemocratic agenda: "They did not intend that their intentions would bind future Ameri-



cans." Perhaps Caplan intends this as paradox; or it may just be ill-phrased. The inadvertent effect, though: it reinforces the need to reinterpret the Constitution for each generation's needs free of the "dead hand" of the drafters, instead of focusing, as originalism does, on intent devoid of contemporary context, based on sometimes scant or contentious evidence.

JEFFREY SCHULTZ, M.P.A. '04
New York City

THE ARTICLE rightly stresses the importance of Klarman's book about the making of the U.S. Constitution. It fills a gap in our understanding of how it came about. Of particular interest is the fact that the Convention participants were the elites of their day (e.g., Madison et al.) working in secrecy to produce a charter which is revered today by almost everybody. It is quite popular for some to castigate today's elites (e.g., as responsible for some of our current troubles), probably while unaware of the huge debt we owe the elites who were the Founders.

HENRY H. MOULTON '46
Cambridge

LINCOLN CAPLAN's review notes that Donald J. Trump was the fourth candidate in American history "to win the Electoral College despite losing the popular vote." Strictly

86 Across

LONG-TIME *Harvard Magazine* crossword-puzzle master John de Cuevas '52 has hung up his pencil, explaining, "I turned 86 last October and in the last few years have experienced a slackening of mental and physical powers." He continues to create puzzles for his website, "but the extra ones I was doing for Harvard are more than I can manage now." We thank

him for bringing pleasure to puzzle-doers for decades. His full notice appears at harvardmag.com/decuevas-17—complete with a reproduction of his devilish creation for the University's 350th anniversary, from the September-October 1986 issue. ~THE EDITORS



Arts First

“**T**he artist is always working with mingled gladness and disappointment towards an ideal he never attains. It is his struggle toward that ideal which makes his life a happy one.” — President Charles W. Eliot

IT'S BEEN QUITE A YEAR so far for Harvard artists working in television and film. Nick Britell put glorious music to *Moonlight*, John Lithgow brought Winston Churchill to roaring life in *The Crown*, and Natalie Portman embodied desperation and grief in *Jackie*. The musical *La La Land*, written and directed by Damien Chazelle, was the recipient of seven Golden Globe awards, including Best Original Score and Best Original Song accolades for his classmate Justin Hurwitz. When this column goes to print, I will be eagerly waiting to see how many of our Academy Award nominees—five by my count—take home Oscars for their extraordinary contributions.

These alumni represent a broad and deep current of creativity and commitment that runs through the University, expanding the lives of students engaged in arts practice and enriching the experiences of members of our community who, like me, are profoundly moved by their talents. There is perhaps no better—and certainly no more concentrated—celebration of their work than ARTS FIRST, a weekend-long festival that this year marks its 25th anniversary. Championed and launched by John Lithgow, it has shined a light on a remarkable diversity of talent and, since 1995, has featured the presentation of the Harvard Arts Medal to an individual who has demonstrated excellence, achieved distinction, and advanced the arts. Past awardees include actors, architects, authors, conductors, composers, dancers, filmmakers, musicians, playwrights, poets, and visual artists—an extraordinary company that embodies the promise of artistic pursuits among members of the University community.

Elevating arts practice and performance—and acknowledging their unique abilities to bring forth new and vital ideas—is an ongoing aspect of nurturing the very skills and habits of mind that are essential to meet the challenges of our age. A new undergraduate concentration in theater, dance, and media harnesses and integrates existing Harvard strengths, and it places the practice and study of art in the heart of the University's curriculum. The Learning From Performers program continues to host artists and art ensembles on campus. Over the past ten years, more than 225 distinguished guests have engaged directly with students and faculty, as well as the public, through discussions, seminars, workshops, and master classes, as well as exhibitions and performances.

Creating connections and providing support for would-be artists is an important component of preparing students to pursue their



interests after graduation. With the help of Office for the Arts' Artist Development Fellowships, undergraduates are able to make great leaps in their artistic growth in a variety of ways—from apprenticing an acclaimed artist to undertaking critical research in service of an ambitious goal, to studying at a major music, dance, or theater festival. Each spring, I meet with the newest cohort of fellows and hear firsthand about summer plans that take them around the globe and into worlds that they could not have imagined. They've undertaken, among many other projects, a public art piece at the annual Burning Man Festival, an animated documentary about American beatbox culture, a collection of non-fiction stories about pilgrimage in India, and intensive dance, music, and theater study and performance. Recently graduated fellows are now working with organizations including the Los Angeles Ballet, the Los Angeles Opera, the Paul Taylor Dance Company, and the San Antonio Symphony, as well as crafting novels, choreographing theater productions, and writing for television.

Two years before he so eloquently described the aspirations of the artist, my predecessor Charles W. Eliot praised the expanding recognition of “new varieties of constructive imagination,” noting happily that the practical work of engineers and scientists had come to garner the same “high admiration” previously reserved for the labors of “the poet, artist, or dramatist.” His words are a reminder to me that the work of teaching and learning to which we dedicate ourselves can be reconsidered and revised in every age, that the ideal of Harvard will always inspire effort—and no small measure of art, beauty, and happiness.

Sincerely,

Drew Faust

speaking, this is correct. However, in considering the deficiencies of the Electoral College, it is important to remember the first time a president was elected without winning a majority of the popular vote: John Quincy Adams, A.B. 1787, LL.D. 1822,

in 1824. Adams also failed to win a majority in the Electoral College, but because neither he nor Andrew Jackson won a majority in the Electoral College, the election was decided by the House of Representatives. See <http://www.factcheck>.

7 WARE STREET

Speaking Strategically

AMONG the most important gains intended from the governance reforms unveiled in late 2010 is enhanced capacity for the Harvard Corporation to think *strategically*: to envision the institution's chief challenges and opportunities, and to help its leaders navigate toward future strengths. In the years since, the imperative of mounting The Harvard Campaign successfully has been, de facto, a proxy for strategy—at least in the near term: shore up financial aid, pursue deferred building projects at several schools, invest in engineering and applied sciences particularly.

But occasional briefings by the Corporation's senior fellow have provided encouraging hints that the hard work of peering beyond the immediate fundraising horizon is under way, too. During the most recent such conversation (see harvardmag.com/lee-16), William F. Lee identified six strategic priorities, ranging from the financial and practical (Harvard Management Company and the endowment; Allston development) to the programmatic (life sciences; "One Harvard" initiatives) to the broadly intellectual and cultural (campus life, diversity, and inclusion; the place of humanities and social sciences in the liberal arts). All to the good—and alumni, faculty and staff members, and students look forward to their evolution and expression.

To that end, it may be helpful to point to similar efforts and differing practices at some peer institutions. As reported, Princeton University's "strategic framework," published in January 2016 following an extensive, broad planning process, draws on its unique circumstances to detail specific investments: enlarge the student body and residences, and thereby attract more diverse undergraduates; build capacity significantly in environmental sciences, education research, engineering (computer science, statistics, and machine learning); and so on (see "The Tiger Roars," May-June 2016, page 2). This is, in part, a fundraising document, of course. But no literate Princeton citizen should be unaware of the com-

munity's aims, so both the process and its outcome seem useful.

Duke University's provost has periodically prepared a widely admired, and widely disseminated, strategic plan. That proved productive during the financial crisis, when cutbacks could be implemented thoughtfully, and for Duke's subsequent capital campaign.

More recently, Yale's newish (mid 2013) president Peter Salovey announced a roadmap for that institution. In a November statement on "University Priorities and Academic Investments," he emphasized two imperatives: "to build on Yale's iconic strengths," and "to invest where we require greater strength." Among the former, he wrote, "the natural starting point is our faculty," supported with appropriate facilities, research funds, and so on. Among the latter, he pointed directly to the need "to invest further in Yale science," to augment its research prowess. Specific measures stem from these overarching goals: overhauling science laboratories and teaching facilities, and building new ones; bringing scattered humanities departments together in a common home, building a new theater complex for the drama school; and emphasizing "the application of empirical social science to public-policy problems and questions"—a proxy for "big-data" ambitions. (The Elis also have a practice of presidential briefings for the community following trustees' meetings—and the *Yale Daily News* reports that internal discussions about how to increase transparency are under way.)

Thinking strategically, and speaking that way with the community as a whole, can only be good for Harvard. As it adjusts to new practices and includes new members, the reformed Corporation is proceeding that way. During its next half-dozen years—approaching the end of the capital campaign and a likely University leadership transition—it can build on those gains, preparing itself, campus constituencies, and candidates to become the next president for the most productive conversations about what Harvard wants to become, and the strongest commitment to ensuring that it succeeds.

—JOHN S. ROSENBERG, *Editor*

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LETTERS

org/2008/03/presidents-winning-without-popular-vote/.

DAVID A. DRACHSLER, LL.B. '68
Alexandria, Va.

Lincoln Caplan replies: The writer is of course correct about Adams's victory over Jackson—and over William H. Crawford and Henry Clay, as well. (Their respective electoral and popular vote totals were: 84 and 108,740 for Adams; 99 and 153,544 for Jackson; 41 and 40,856 for Crawford; and 37 and 47,531 for Clay.) Journalism often requires selection. While the writer is also correct that it's important to remember this first example, it's not essential to mention it in every consideration of the Electoral College. After consulting with the editors of the magazine, I didn't mention the Adams example in the review because the larger point Klarman was making about the not-fully-democratic character of the Electoral College was amply supported by the four other examples, which I could refer to succinctly in a parenthesis.

ASSAULTS ON PRIVACY

THE MOST IMPORTANT line in "The Watchers" (January-February, page 56) is "Although Snowden highlighted government surveillance, it may not be the worst problem. Corporations hold vast and growing troves of personal information that is often inadequately protected, its use largely unregulated."

This is an understatement. The largest corporations have become transnational entities, with incomes bigger than many countries' GDPs, distributed networks that are less vulnerable than our national-security infrastructure, and an agenda that owes not even notional loyalty to "citizens." While it is not an IT company, Exxon/Mobil appears to be in the process of taking over our State Department, a disturbing confirmation that the nation

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LETTERS

state is becoming subordinate to large corporations. As the last section of the article makes clear, we are up against a powerful economic feedback loop. Our only hope of protection comes through non-market interventions (legislative, legal, etc.). When our public institutions themselves become departments of corporations, what hope have we of protecting ourselves?

CHARLES HSU '79
San Francisco

GENDER AGENDAS

WHAT CAN they be thinking, these agenda-driven Harvard administrators and their student adherents ("Gender Agenda," January-February, page 23)? All their specious cant about demographics and their nonsensical notions about certain independent associations being antiquated cannot justify the radical violation of rights these folks are proposing. Their impulse to overthrow civil liberties, including the freedom of association, seems so ill-suited to the fair Harvard, the tolerant, liberal, live-and-let-live Harvard, the Harvard that has always shone forth as a powerful beacon for human rights. That Harvard is the true Harvard. Oy vey! Johnny, we hardly know ye.

JOHN J. ADAMS '62
New York City

I NOTICED the brief review of the University-wide Women's Weekend in November ("A Women's Weekend," January-February, page 74). It sounds like it was a success.

Would it not make sense to organize a Men's Weekend once a year as well? The world is changing for everyone. There are many issues that would be uniquely important, such as men's health, family, being fathers, careers, sports, even feminism.

In the drive for women's rights, one doesn't want to marginalize men or be insensitive about their particular challenges and problems. Sexism can have two faces.

PEGGY TROUPIN, PH.D. '74
New York City

M.B.A. ANXIETIES

I ENJOYED your reference to the dread Harvard Business School WACs in "Signs of the Times" (The College Pump, January-February, page 76). As an HBS student in the heyday of this time-honored practice, I

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LETTERS

have vivid memories to this day of rushing behind Baker Library to throw my Written Analysis of Cases into the gaping bin. My anxiety was further amplified by the fact I lived off campus with my Wellesley alumna wife and had to drive in via an unreliable old VW. The terrors of the “real” business world pale in comparison to the then-renowned WAC passage at the Business School!

PHILIP K. CURTIS, J.D. '71, M.B.A. '74
Atlanta

WORDS MATTER

DON BOYD'S LETTER in the January-February issue (page 5) maintains that intellectuals try “to kill innocent infants in the womb....” A womb will contain egg, zygote, blastocyst, embryo, and fetus. Infants are post womb. Terminology is important. Its misuse, when prompted by passion, politics, or carelessness, limits dialogue.

ROBERT RUGGERI-KORET, Ed.M. '90
Melrose, Mass.

OUR (MULTIPLE) BAD

WE APOLOGIZE for misspelling Martha E. Pollack's name in its second appearance in a Brevia item about her appointment to Cornell's presidency (January-February, page 27).

We regret the omission of Brian Mast, A.L.B. '16, Republican of Florida, from our compilation of Harvard degree-holders elected to Congress in November (“Crimson on Capitol Hill: 115th,” January-February, page 30). Mast is the new representative from his state's 18th District. We thank Jonas Akins '01, M.B.A. '12, for alerting us to the error.

Jonathan Handel '82, J.D. '90, of Los Angeles, queried why Vita subject Williamina Fleming (January-February, page 48) was born in 1857 but reported as being 22 in November 1878, observing, “Unless she not only discovered the Horsehead Nebula, but also visited it at relativistic speed, it seems more likely that she was 21.” We acknowledge that Fleming herself would never have made such an error, and author Alan Hirshfeld says he simply miscalculated.

Montage subject Betty Shamieh (“The Happy Misanthrope,” January-February, page 67) sent word that her play *Territories* was developed by a Palestinian company, Al-Harah Theatre, and not by an Israeli company, as author Olivia Schwob reported.

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Eating for the Environment

WHEN Gidon Eshel sits down for a meal, his plate holds a full agenda. There's the food, of course—plant-based, in his case. But beyond the barley and snap peas spills a cornucopia of environmental, social, and political considerations. “When you make a choice between any two competing ingredients or any two competing meals,” Eshel said in a December lecture (on “Rethinking the American Diet”), “you are making a whole cascade of important choices that you may or may not be aware of. For example, in that choice you determine...the nature of rural communities” in terms of structure, land use, and population density; the quantity of greenhouse gases emitted “on your behalf” for food production; the biodiversity of rangelands; the likelihood of species extinctions; and the health of waterways and coastal ocean fisheries, where massive die-offs are one consequence of agricultural pollution. “You even get to take sides in things that we don't often associate with food choices, like societal strife,” he said, citing the example of a water-rights dispute pitting alfalfa farmers against a Native American tribe in Oregon's Klamath basin. And finally, of course, nutritional choices “determine your health as powerfully as genetics or exercise.”

Eshel is a geophysicist; a research professor of environmental science and physics at Bard College, he spoke at the Radcliffe Institute, where he is a fellow this year. His field was conventional climate science when he was a professor at the University of Chicago, until a lunch conversation about the geophysical implications of food production led him to a new focus: environmental-geophysical consequences of human diets.

Since 2006, he has examined the effects on the planet of various diets, from vegan to lacto-ovo to the mean American diet (MAD, in which about a quarter of the calories come from animal-based products). His findings have given him a strong message to deliver: lose the beef.

Beef represents only about 7 percent of the calories consumed by Americans, but the hamburger habit has outsized effects. Beef production, Eshel's research has shown, uses in aggregate 28 times more land—91 million acres of high-quality land to grow crops for use as feed, and 771 million acres of rangeland used as pasture for cattle—as well as 11 times more irrigation water than



the average of other livestock categories such as pork and poultry. Beef production also creates five times the amount of greenhouse gases and six times as much water-polluting reactive nitrogen.

"Farmers do a bunch of things" to the earth's surface to affect the rate at which hydrobiogeochemical processes occur, Eshel told his audience. Most importantly, they add nitrogen as fertilizer and they modify drainage so irrigation water leaves the soil almost as quickly as it arrives, to speed plant growth and keep roots from rotting. But these chemical and physical modifications have an unintended consequence: they degrade the ability of soil biota to neutralize reactive compounds. Such microorganisms require soil that retains water to do their work, which takes place slowly and steadily, he explains. By speeding up surface and soil hydrology, "You basically degrade an ecosystem's ability to render those otherwise dangerous compounds harmless." Ultimately, the reactive-nitrogen-laden runoff reaches the coastal ocean, where it severely depletes levels of dissolved oxygen, leading to massive fish kills in places like the northern part of the Gulf of Mexico "near the Mississippi River mouth."

Beyond its contribution to water pollution, agriculture is a significant source of greenhouse-gas emissions: nearly 10 percent of the total in the United States for agricultural production, rising to roughly a quarter when the entire food chain, from farm to plate, is considered. But the vast majority of those emissions are attributable to livestock. Almost half of the total land area in the lower 48 states (1.9 billion acres) is devoted to agriculture: various pasturelands represent about a third of that, while corn, hay, and other feed crops account for almost all the rest. By comparison, all the lettuce, tomatoes, fruits, and nuts people eat (including apples, citrus, and almonds) are grown in less than *one-half of 1 percent* of the agricultural lands: "a minuscule fraction of the total," Eshel pointed out. Switching to a plant-based diet, his research has shown, would eliminate about 80 percent of greenhouse-gas emissions attributable to agriculture in the United States, because most of that comes from ruminant livestock emissions, and growing their feed grains.

Beef production also threatens biodiversity in Western rangelands. By the time grasslands have been moderately or intensively used for grazing cattle, research

shows, more than half the species once native to the landscape have been lost.

Although Eshel has for the past decade emphasized the benefits of switching to a purely plant-based diet (in which foods such as peanuts, soy, and lentils play a prominent role), he recognizes that veganism is not for everyone, despite the clear health benefits. Now he's calculated what would happen if all the national resources required to produce the beef Americans consume annually (about 65 grams per person per day) were devoted to poultry production instead. The number of useful calories produced would increase fivefold. Such a diet would also deliver four times the amount of protein, enough to meet the dietary needs of an additional 140 million people. Given the resources required to produce it, the idea that beef is indispensable, Eshel said, "just doesn't make sense."

But if people demand beef, how much can be grown sustainably? Eshel calculates that by combining feed that originates as an industrial byproduct (orange peels from juice production, for example) with the best half of all the *pastureland* in the country, 33 percent of the current beef supply could be maintained. Using *all* the pastureland, including arid, minimally productive Western rangelands, would affect more than 370 million acres and produce only 5 additional percent of the current supply, at the great environmental costs enumerated above. The high-quality *cropland* used to grow cattle-feed—if repurposed for crops that people eat—would deliver nine times the supply

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of protein if planted with wheat or spelt.

When making their dietary choices, Eshel said in summing up his research, individuals "get to tip the scale of environmental, social, and political contests," as well as improve their personal health. Eating healthy foods that use less land, therefore, "is one of the callings of our time...." —JONATHAN SHAW

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THE X FACTOR

Why Is Cancer More Common in Men?

ONCOLOGISTS KNOW that men are more prone to cancer than women; one in two men will develop some form of the disease in a lifetime, compared with one in three women.

But until recently, scientists have been unable to pinpoint why. In the past, they theorized that men were more likely than women to encounter carcinogens through

factors such as cigarette smoking and factory work. Yet the ratio of men with cancer to women with cancer remained largely unchanged across time, even as women began to smoke and enter the workforce in greater numbers. Pediatric cancer specialists also noted a similar "male bias to cancer" among babies and very young children with leukemia. "It's not simply exposures over a lifetime," explains Andrew Lane, assistant pro-

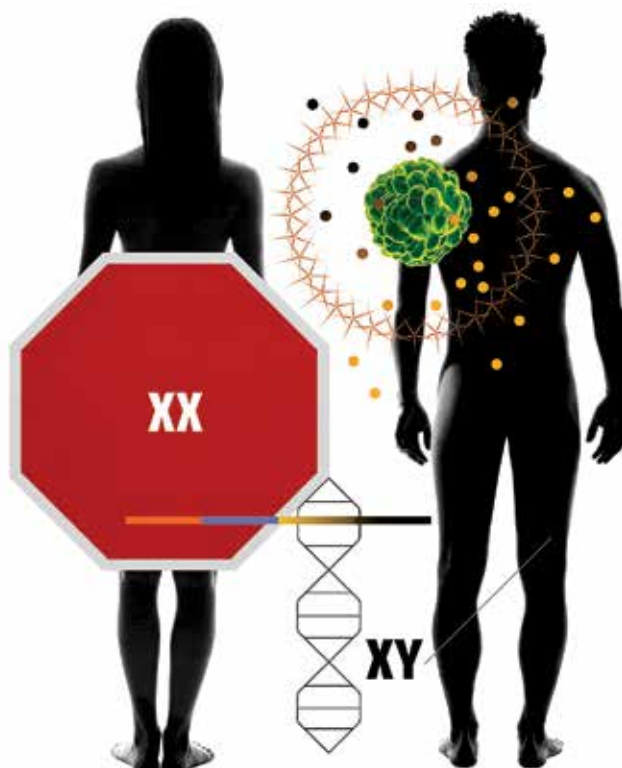
fessor of medicine and a researcher at the Dana-Farber Cancer Institute. "It's something intrinsic in the male and female system."

Now, discoveries by Lane and the Broad Institute of Harvard and MIT reveal that genetic differences between males and females may account for some of the imbalance.

A physician-researcher who studies the genetics of leukemia and potential treatments, Lane says that he and others noted that men with certain types of leukemia often possess mutations on genes located on the X chromosome. These mutations damage tumor-suppressor genes, which normally halt the rampant cell division that triggers cancer.

Lane initially reasoned that females, who have two X chromosomes, would be less prone to these cancers because they have two copies of each tumor suppressor gene. In contrast, men have an X and a Y chromosome—or just one copy

STUART BRADFORD



of the protective genes, which could be "taken out" by mutation. But the problem with that hypothesis, Lane says, was a "fascinating phe-

nomenon from basic undergraduate biology called X-inactivation." In a female embryo, he explains, cells randomly inactivate one of the two X chromosomes. "When a female cell divides, it remembers which X chromosome is shut down, and it keeps it shut down for all of its progeny."

If female cells have only one X chromosome working at a time, then they should be just as likely as male cells to experience cancer-causing gene mutations. So Lane and his team dug deeper into existing studies and encountered a little-known and surprising finding: "There are about 800 genes on the X chromosome," he says, "and for reasons that are still unclear, about 50 genes on that inactive X chromosome stay on."

In a "big Aha! moment," Lane's group realized that those gene mutations common in men with leukemia were located on genes that continue to function on women's inactive chromosome. The research-

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Foreseeing Self-Harm

ers dubbed those genes EXITS for “Escape from X-Inactivation Tumor Suppressors.” Women, Lane explains, thus have some relative protection against cancer cells becoming cancer because they, unlike men, *do* have two copies of these tumor-suppressor genes functioning at all times.

To determine whether this model applied to multiple cancers, Lane partnered with Gad Getz, director of the cancer genome computational analysis group at the Broad Institute, to comb through gene-sequencing data for more than 4,000 tumors that included 21 different cancers (but omitted cancers such as prostate and ovarian, which occur only in males or females). Their results were startlingly clear: of the approximately 800 genes located on the X chromosome, the scientists identified six genes more frequently mutated in men than in women—and five fell into the subset of genes that escape X-inactivation in women.

Lane says this points to the need for medical research to pay closer attention to the differences between men and women. Since these findings were published in *Nature Genetics* last fall, he has heard from researchers who have run clinical trials in which male and female subjects responded differently to treatments, and now wonder if factors like the EXITS genes in women might have played a role. “It’s possible,” Lane says. “This tells us that at the fundamental level of the cell itself, there may be differences simply based on the genetics.” It also suggests that cancers thought to be the same in women and men actually develop differently. “This could have implications for the behavior of the disease or treatment,” he adds. “To me, the coolest thing about this work is that it opens people’s eyes to the possibilities.”

— ERIN O'DONNELL

ANDREW LANE WEBSITE:
www.dfhcc.harvard.edu/insider/member-detail/member/andrew-a-lane-md-phd

PSYCHOLOGY PROFESSOR Matthew Nock has spent his career studying self-harm, but he remains humbled by how little is yet understood about why people kill themselves. Suicide is the tenth highest cause of death in the United States, and the rate remained roughly steady across the population for the last century, before rising somewhat during the last few decades.

Academic theories of suicide emerged in the nineteenth century. Émile Durkheim wrote about social determinants of suicide

in his foundational (though now controversial) text on the differences in suicide rates among Protestants and Catholics in Europe. Freud thought depression and suicide reflected inwardly directed anger. As psychology became the domain of empirical research, clinicians came to rely on factors correlated with suicide—like depression, poor impulse control, or substance abuse—to determine whether a patient was at risk. But a recent review of several hundred studies of suicidal thoughts and behaviors during the last 50 years, co-authored by Nock and a team of fellow scholars in the *Psychological Bulletin*, finds that risk factors have been virtually no better than random guesses at predicting suicide.

One shortcoming of traditional risk factors is that they require clinicians to rely on self-reported information from patients. What if patients aren’t forthcoming because they don’t want to be hospitalized, or are unable to report their emotional states? The bigger problem, Nock explains, is that each factor individually contributes so little to suicide risk. Depression, for example, may be *correlated* with suicide, but the proportion of patients with depression who attempt suicide is still vanishingly small. The clinical human brain, Nock continues, “isn’t well prepared to assess dozens of risk factors at a time, weigh them all, and then combine those weights into one probability that a person is going to attempt suicide. So clinicians will focus on one or two risk factors, or they’ll ask a patient, ‘Are you thinking about hurting yourself?’ and just rely on



Suicide risk depends...on an additional “acquired capability” to kill oneself: the ability to overcome the fear of death through previous experiences of one’s own or another’s trauma.

that and forget all the risk factors.”

The predictive failure of individual risk factors may be linked with psychologist Thomas Joiner’s theory of suicide. He has argued that suicide risk depends not just on the will to die, but also on an additional “acquired capability” to kill oneself: the ability to overcome the fear of death through previous experiences of one’s own or another’s trauma, or intentional self-harm.

To comb through the many factors contributing to suicide risk in a more systematic way, Nock (profiled in “A Tragedy and a Mystery,” January-February 2011, page 32) and colleagues have been working on a new approach that uses a computer algorithm. Last September, they published the results of an early algorithm, not yet ready for clinical use, developed using health records from

the Partners Healthcare system. The program scanned 1.72 million electronic medical records for every medical code—age, sex, number of doctor’s visits, and each illness or health complaint—that might predict suicide. The resulting model predicted 45 percent of the actual suicide attempts, on average three to four years in advance.

“Not surprisingly, codes like depression and substance abuse have big effects,” Nock reports, but so do “non-mental-health codes related to gastrointestinal problems, getting cuts, and accidentally taking too much of a certain drug. What we may be picking up,” he suggests, “is a sort of practice to make a suicide attempt, or low-level non-lethal suicide attempts that don’t get coded as such.”

The catch, though, is that the model also picked up a lot of false positives: the vast

majority of those identified as at risk for suicide did not make a suicide attempt. And even though the algorithm’s success rate was high relative to existing methods, it still failed to predict the majority of attempts. In the future, the paper suggests, the model might be improved by accounting for the compounding effects of multiple factors. How might drug addiction, for example, affect suicide risk differently when coupled with a patient’s age or mental health? And some element of suicide risk might simply be random, he admits, or not captured by medical codes.

Nock doesn’t claim that a computer algorithm can replace in-person treatment, but the model represents one of the many ways in which medicine is being transformed by machine learning. Algorithms, this work suggests, can be applied not just to diagnose suicide risk but also in other clinical domains where human judgment fails.

—MARINA BOLOTNIKOVA

MATTHEW NOCK WEBSITE::

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From left: *Arca Botanicum* (closed), 2013, by Dixie Biggs and Ray Jones, Fuller Craft Museum; Terence Davies's *A Quiet Passion*, Harvard Film Archive; the Batsheva Dance Company in Ohad Naharin's "Echad Mi Yodea," to be performed by Harvard Dance Project students

FILM

Harvard Film Archive

www.hcl.harvard.edu/hfa

Houghton at 75: Films Inspired by the Harvard Library's Special Collections (see page 36) includes *Glory*, *Billy Budd*, and *A Quiet Passion*, a new film by Terence Davies about Emily Dickinson. (March 6-April 24)

THEATER

American Repertory Theater

www.americanrepertorytheater.org

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FROM LEFT: RANDY BATISTA/COURTESY OF FULLER CRAFT MUSEUM; HARVARD FILM ARCHIVE; MAXIM WARRAT



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such ingenious ensembles—selected from winning entries in New Zealand’s annual design competition WOW® World of

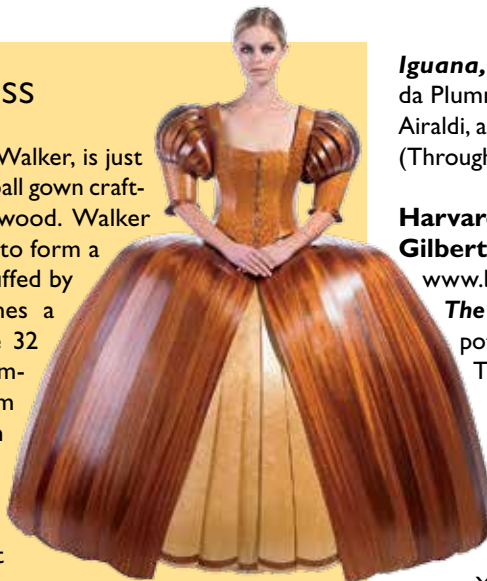
WearableArt™—appear at the Peabody Essex Museum

through June 11. For 25 years, the popular competition has drawn a diverse set of artists who vie to merge fashion and high art. New Zealand jeweler Sarah Thomas, inspired by the shiny, sleek lines of vintage cars, created her own spunky, don-able version, *American Dream*, from papier-mâché, builder’s foam, and vinyl. It lacks an engine, but who wouldn’t want to cruise

through a party dressed in the ’57 Chevy Bel Air classic?

~N.P.B.

Peabody Essex Museum
www.pem.org



Iguana, stars James Earl Jones, Amanda Plummer, Elizabeth Ashley, and Remo Airaldi, among others. Loeb Drama Center. (Through March 18)

Harvard-Radcliffe Gilbert and Sullivan Players

www.boxoffice.harvard.edu

The Sorcerer. Villagers consume a love potion, with comedic results. Agassiz Theater. (March 24-April 2)

DANCE

Harvard Dance Program

www.ofa.fas.harvard.edu/dance

Harvard Dance Project student performances include “Echad Mi Yodea,” by Israeli choreographer Ohad Naharin. Farkas Hall. (April 6-9)

NATURE AND SCIENCE

The Harvard-Smithsonian Center for Astrophysics

www.cfa.harvard.edu/events

Skyviewing and a lecture on “**Mapping the Heavens**,” by Yale professor of physics and astronomy Priyamvada Natarajan. (April 20)

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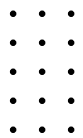
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The Arnold Arboretum

www.arboretum.harvard.edu

Science and nature writer Jennifer Ackerman shares travel stories and research in a lecture about **"The Genius of Birds."** (April 18)

Docent Bill Mayer leads the 90-minute **Birding 101!** Suitable for all levels of expertise; binoculars recommended. (April 29)

LECTURES**Harvard Music Department**

www.music.fas.harvard.edu

Cellist **Yo-Yo Ma** '76, D.Mus. '91, addresses "Culture, Connection, and Citizenship in a Time of Change." (No tickets required; first come, first seated.) Paine Concert Hall. (March 22)

The Mahindra Humanities Center

www.mahindrahumanities.fas.harvard.edu

The **Writers Speak** series hosts Daniel Alarcón (*At Night We Walk in Circles*) and Francisco Goldman (*The Interior Circuit: A Mexico City Chronicle*) for a conversation with novelist and senior lecturer in English Claire Messud. (April 3)

The Radcliffe Institute for Advanced Study

www.radcliffe.harvard.edu

The conference **Game Changers: Sports, Gender, and Society** features Laila Ali, the four-time undefeated Super-Middleweight Boxing World Champion, and national sports columnist Christine Brennan, as well as numerous academic and sports-industry panelists. Knafel Center. (April 6-7)

MUSIC**Harvard-Radcliffe Collegium Musicum**

www.boxoffice.harvard.edu

Johann Sebastian Bach's masterwork, *Mass in B Minor*. Sanders Theatre. (March 31)

Harvard-Radcliffe Orchestra

www.boxoffice.harvard.edu

Works by Hector Berlioz, Sergei Rachmaninoff, and George Gershwin top the program. Sanders Theatre. (April 15)

Holden Choruses

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The **Harvard Glee Club, Radcliffe Choral**



Quiet Reflections (2016), by James Coe, at the Museum of American Bird Art

Society, Harvard-Radcliffe Collegium Musicum, and the Boston Modern Orchestra Project perform Trevor Weston's *Griot Legacies* and Michael Tippett's *A Child of Our Time*. Sanders Theatre. (April 22)

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JAKE BELCHER PHOTOGRAPHY

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Sanam Marvi/World Music

www.boxoffice.harvard.edu

The classically trained Pakistani vocalist is among the world's finest performers of Sufi devotional and folk music. Sanders Theatre. (March 26)

Richard Thompson, Solo & Acoustic

www.boxoffice.harvard.edu

The award-winning British guitarist and song-

writer, covered by countless fellow artists, has created music for more than 50 years. Sanders Theatre. (April 18)

EXHIBITIONS & EVENTS

The Collection of Historical Scientific Instruments

www.chsi.harvard.edu

Scale: A Matter of Perspective looks at "scale and its power to transform perceptions of the world and our place in it" through telescopes, microscopes, and other cultural artifacts. (Opens March 10)

The Peabody Museum of Archaeology & Ethnology

www.peabody.harvard.edu

More than 600 objects, including explorer Robert Peary's dog sled, appear in **All The World Is Here: Harvard's Peabody Museum and the Invention of American Anthropology**. (Opens April 22)

The Cooper Gallery of African & African American Art

www.coopergalleryhc.org

Some 25 mixed-media works by contemporary artist Juan Roberto Diago are on display in **Diago: The Pasts of This Afro-Cuban Present**. (Through May 5)

Fuller Craft Museum

www.fullercraft.org

Bartram's Boxes Remix: sculptural items and installations inspired by the eighteenth-century explorer and botanist John Bartram. (Through April 16)

The Institute of Contemporary Art

www.icaboston.org

Nari Ward: Sun Splashed is a timely retrospective on the Jamaican-born, New York City-based artist whose sculptures, collages, videos, and performances integrate found materials and offer a visceral response to social issues and urban life. (Opens April 26)

The Museum of American Bird Art at Mass Audubon

www.massaudubon.org

Birdscapes: Recent Oil Paintings by James Coe. Coe '79 studied ornithology, went on to the Parsons School of Design, and now combines his talents in *plein-air* works. (Through May 14)

Events listings are also found at www.harvardmagazine.com/harvard2-events



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Time Apart

Star Island's haunting beauty and purposeful retreats
by NELL PORTER BROWN

LISA SANTILLI



AT 5:15 A.M., fresh from bed and dressed for chilly September winds, a group of yogis sit on a rocky promontory at the eastern tip of Star Island. Silhouetted against the sky, they watch the sun's first rays splash across a sapphire swath of the Atlantic Ocean. Behind them, the full moon hangs low, glimmering in a blue sky laced with lavender. "It's un-missable," yoga teacher Tristan Boyer Binns had told students the night before. "You don't get to see the horizon *all the way around* very often."

She's been coming to "this sacred place," one of the nine Isles of Shoals that sprout up about 10 miles off the coast of Portsmouth, New Hampshire, since she was a teenager, and is still awed by its wild beauty, intriguing history, and the community of people devoted to preserving both.

The ferry ride to Star takes only 75 minutes, and on clear days the mainland is faintly visible from its southern coast. Yet when disembarking at Gosport Harbor (named for the original 1715 township), there's a giddy sense of having tricked time.

The grand Oceanic Hotel, constructed

in 1876, looms large at the end of a grassy path uphill from the dock: a rare surviving Gilded Age resort—and the only one to have escaped complete renovation. Its generous, wraparound porch holds rocking chairs where guests sit to read, write, and talk, watch the tides, or just enjoy ocean views and breezes; for birders, there are terns, barn swallows, and cormorants to follow. The lobby holds a grand piano and clusters of sofas and chairs, many times repaired, and tables set with board games and jigsaw puzzles.

Chalkboards that have been there as long as anyone can remember list the day's activities. One day, along with yoga on the front lawn and chanting in the stone Gosport Chapel, built in 1800, there are sessions for contra dancers, choral singers, folk musicians, and crafters. Simple meals like spaghetti, bread, and salad, followed by piles of homemade cookies, are served family-style

TRISTAN BINNS



Restorative scenes: Most Star Island visitors stay at the historic Oceanic House, overlooking lawns and the harbor. Stormy weather looms off the island's western end. A ferry leaves Portsmouth for a trip to the Isles of Shoals. Yogis on retreat perch on rocks to watch the sunrise.

in the 300-seat dining room. The adjacent "pink parlor" and "writing room" are reserved for quiet activities.

"You're stepping into something the way it was, and you can't really do that in other places," says Joe Watts, an ever-smil-



The day's activities are written on school-room chalkboards. Children tend to run free, play games, and swim off the dock. Art projects attract all ages, while birders, especially, enjoy island walks and boat tours of the Isles of Shoals.



ing presence and the CEO of the nonprofit Star Island Corporation that has owned and managed the 46-acre island, named by sailors for its roughly five-pointed shape, since 1916. There are no cars, TVs, or piped-in music, although guests do bring and play their own instruments. WiFi and cell-phone coverage is available, but spotty; many people leave their elec-

tronics at home, and often find they're relieved to be rid of them. "This place is about old-school interaction with other people, and with a place, with nature, and history," Watts adds. "You can't help but do that when you're here." The winds blow through his office windows, coupled with sounds of waves slapping or crashing against rocks, and seagulls calling. The contemporary world dissolves, often literally, into the fog.

Star Island offers rest and rejuvenation—and freedom, especially for children. People make their own fun. They walk or run along the half-mile perimeter path; swim off the dock; kayak or row; play Frisbee, soccer, and tennis; do projects in the Art Barn; or spend time in the small Rutledge

Marine Lab, where a touch tank holds barnacles, periwinkles, and crabs. Many look forward to the evening's entertainment: a magnificent sunset. "That's what happens when you don't have a TV," says Watts, who has spent part of nearly every summer on Star since he was 11, and now brings his own children. "People see it as a magical place."

Nearly everyone also participates in one of more than 60 programs, or what the organization calls "conferences," offered from June through September. (Registration opened on January 1, and sessions fill up quickly.) Topics range from art and culture, physical wellness, and regional history to ecology and climate change, and religion and spirituality, along with hugely popular family and young adult conferences; most last a few days or a week.

It sounds corny, Watts admits, but "the hope is that people will come here and learn something, and bring it forward to make the world a better place." That vision is rooted in the values of the Unitarian Universalist Association and the United Church of Christ, which guide the Star Island Corporation, although anyone, "regardless of their spiritual persuasion," Watts assures, is welcome. The churches have held summer religious "conferences" on Star since 1897, and bought the island after the bank foreclosed on previous owners. The corporation soon also acquired adjacent Appledore Island, which, at 95 acres, is the largest of the Isles of Shoals.

Appledore has its own legacy. It was home to nineteenth-century poet and gardener Celia Loughton Thaxter, who helped run her family's summer resort there in the latter half of the 1800s and was instrumental in develop-

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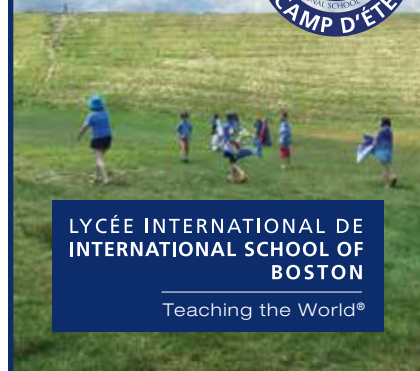
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CURIOSITIES:

Elucidating Public Health

The Public Health Museum in Tewksbury Hospital's old administration building (a national historic site), helps illustrate efforts to combat some of the deadliest diseases in modern American history.

There's an iron lung, made by J.H. Emerson Co., of Cambridge, used to treat polio. Nearby are lung X-rays lit to reveal tuberculosis (TB), and a metal sputum cup once carried by a patient to decrease the spread of infection. A case holds bifurcated needles to administer smallpox vaccines and an antique portable autoclave for on-site sanitation. In another room, posters and documents explain syphilis and commemorate William Augustus Hinton, B.S. 1905, the first black professor at Harvard Medical School, for his pioneering research, including his 1936 medical textbook *Syphilis and Its Treatment*.

Effective vaccines "mean that parents no longer have to worry about their children dying—or living their lives in iron lungs—because of polio, or worry about smallpox—a disease that killed more people in the past 200 years than any infection other than tuberculosis—because smallpox has been eradicated," says Alfred DeMaria Jr. '73, secretary of the museum's board of directors. (He is also the state epidemiologist and medical director of the Bureau of Infectious Disease and Laboratory Sciences in the Massachusetts Department of Public Health.) "Generations growing up after these infections were controlled do not have the same reverence for vaccines that earlier generations had," he adds. "We hope that a visit opens a window on the success of prevention." (The museum offers expanded hours, activities, and lectures during National Public Health Week, April 3-9.)

What's now Tewksbury Hospital opened in 1854 as a state almshouse, and was soon admitting the "pauper insane." It became a full-scale medical facility known for treating smallpox, typhoid fever, diphtheria, and other scourges of the day; a TB sanatorium was built in 1899.

The museum also offers walking tours of the buildings and grounds, and exhibits on patented "remedies," nursing education, dentistry (a traveling dental chair, circa 1890, proves how far that field has come), and former mental-health treatments. The hospital bed with canvas restraints held patients undergoing insulin-coma therapy, an ineffective

and dangerous practice of dosing people with insulin, then reviving them with glucose. It was discontinued in the United States by the late 1960s, board member Linda Perry said during a recent tour. Pointing to a photograph of "cold-water baths," she added, "They were done, basically, to quiet the more violent patients. A retired nurse who visited said that sometimes they were [immersed] for 18 to 24 hours." Upon leaving, another visitor observed, "I'm very glad to be living in the twenty-first century." ~N.P.B.

The Public Health Museum
publichealthmuseum.org



COURTESY OF THE PUBLIC HEALTH MUSEUM



HARVARD MAGAZINE/NEP (3)

ing a summer arts community that lured Childe Hassam, Nathaniel Hawthorne, and Sarah Orne Jewett. Harvard's first music professor, John Knowles Paine, was also a close friend, according to unofficial Isles historian (not the novelist) Ann Beatrice: he even shipped a piano to Thaxter's parlor so he and fellow musicians could compose and play.

These days, there are a few private homes and the seasonal Shoals Marine Lab, a partnership between Cornell and University of New Hampshire. It keeps

roughly a hundred people busy between May and October; some of them run educational programs and tours, including a visit to the recreation of Thaxter's flower garden, during July and August.

STAR AND APPLEDORE are, typically, the only islands in the Shoals cluster routinely open to the public. There are three other islands to the south: White, home of White Lighthouse (first es-

established in 1821), and Seavey (both state properties), and the privately owned Lunging. Four more lie to the north, in Maine waters: Smuttynose (the third largest, and site of the notorious 1873 murder of two women that has inspired many books and a movie), diminutive Malaga, and Cedar are all in private hands, but Duck is a state-owned nature preserve, home to seals, terns, and other wildlife, and off limits to humans.

Ferryboat and chartered cruises offer narrated tours around the islands; an estimated 15,000 day-trippers visit the Isles each year, stopping mostly at Star to eat, walk, learn about its sustainability program, or browse in the Oceanic Hotel's book shop.

Long before the tourists began arriving, Native Americans were on the Shoals, probably fishing and hunting birds and seals; archaeological excavations suggest a landfall between A.D. 800 and 1200. The first European to both spot and map the Shoals was English explorer Captain John Smith; he never set foot on them, but by 1661 Appledore had an incorporated township, followed by Gosport village on Star.

By then the Shoals were home to about 600 colonists and a fishing hub that caught giant cod (back then, typically 150-pounders), and shipped a "boutique" salted form



of it throughout the colonies and to Europe, according to Beattie. Although that business and the islands' population had dwindled by the mid 1700s, the 300 residents subsisted on fish and whatever livestock and crops they could maintain and were fiercely independent, viewing themselves "as separate from the mainland," she adds: calling it "'America,' as if they were not a part of it." Perhaps because they were thus perceived as a threat to the independence movement, most of the islanders were evacuated in 1776 during the American Revolution, she reports. An even



SEAN D. ELLIOT

Star Island's historic Gosport Chapel

smaller number of new or returned fishing families were living primarily on Star, however, when businessmen first began buying up Shoals' property in the mid 1800s to develop summer resorts for affluent Bostonians and New Yorkers. These days, Star Island and its Oceanic Hotel are far from "luxurious," Watts clarifies. Prices are kept as affordable as possible (an all-inclusive, three-night stay, for example, starts at about \$446 per person, with some discounts and scholarships available), and resources—including a 420-panel solar array that generates 60 percent of the island's power and a rain-water collection system—are more carefully managed than ever under a five-year-old sustainability program called "The Green Gosport Initiative."

The first elaborate Shoals hotel was built by entrepreneur Thomas Loughton (Celia's father, and a former White Lighthouse keeper), who bought up most of Appledore Island, and developed the Appledore House resort in 1848. Boston businessman John Poor, of the Stickney & Poor Mustard Emporium, followed suit, building the original Oceanic Hotel on Star in 1873. Fire destroyed it within three seasons, but Poor—known for his resourceful-

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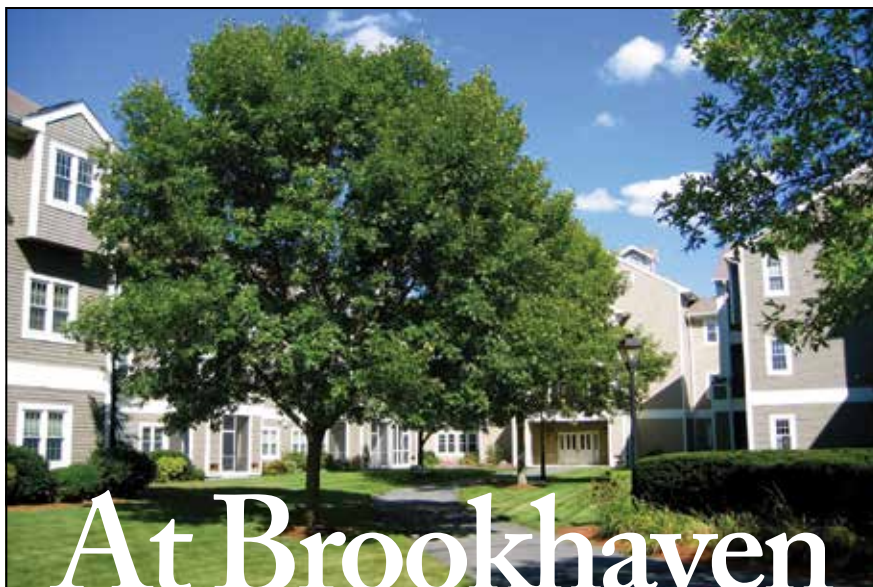
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SEAN D. ELLIOT

Star Island was once a fishing hub.

ness, Beattie says—soon “cobbled together” the current Oceanic House from two existing boarding houses, “the home of a former Shoaler, and some leftover lumber.” It opened for 300 guests in 1876, with bedrooms eventually “outfitted with electric bells and gas lighting supplied from an on-island coal conversion plant,” as well as indoor plumbing.

By that time, Celia Thaxter was spending a good part of the year on Appledore, helping with her family’s hotel, and living in her own island home, hosting “what are believed

to be the first American salons,” says Beattie. Poet, politician, and abolitionist John Greenleaf Whittier was a good friend who visited often, as was Childe Hassam, who illustrated her poetic, diaristic *An Island Garden* and had a studio there. Painter William Morris Hunt completed his last works on the island, then drowned there in an apparent suicide. (Thaxter found his body.) That era drew to a close soon after her own death in 1894 on Appledore, where a stone marks her grave.

Star’s landscape, too, is layered with history. On the north side is the state’s tallest gravestone: the 46.5-foot granite obelisk towers over the remains of beloved minister, physician, educator, and magistrate John Tucke, A.B. 1723. Ordained on Star in 1732, he served parishioners for more than 40 years before dying there in 1773. Just beyond the Gosport Chapel, built at Star’s highest elevation, is

the Vaughn-Thaxter Cottage. Now used as a library and museum, it offers records from Gosport village, vintage maps and photographs, Oceanic House relics, and books by and about Thaxter, including *An Island Garden*.

“By half past six I was out of the doors at work in the vast circle of motionless silence, for the sea was too calm for me to even hear it breathing,” she wrote there. “It was so beautiful—the dewy quiet, the freshness, the long, still shadows, the matchless, delicate, sweet charm of the newly awakened world.”

On that more recent chilly morning just before dawn, standing at what felt like the edge of the world, it seemed that little had changed. ▢

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Animal-Free Dining

Vegetarian options sprout up throughout Greater Boston.

by NELL PORTER BROWN

ON A recent Saturday night, the Walnut Grille, in Newton Highlands, was buzzing. A young couple tucked into a dish of finger-lickin' chipotle soy fingers. Nearby, old friends shared a slice of carrot cake made with coconut and olive oil. "We love it here," one said. "I'm vegan, and it's the only place I can go and not worry." Fit praise for Walnut Grille, where juicy "burgers," Thai tofu curries, and "polenta Napoleon" top the all-vegetarian/vegan gourmet menu. But as a blanket statement, it's increasingly untrue.

Plant-based food venues have proliferated across Greater Boston within the last decade, notes vegan David J. Havelick, A.L.M. '14, a manager at Harvard's Office for Sustainability, where he's working with faculty members to develop more healthful

food standards for the University. "More all-vegetarian restaurants opened in 2016 in Boston than ever before, by far, and are thriving," he adds, "and more are on the horizon." Choices range from casual spots with counter service, like Life Alive (Cambridge), Amsterdam Falafelshop (Somerville), and Whole Heart Provisions (Boston), to sit-down restaurants that serve alcohol, like Walnut Grille, Veggie Galaxy (Cambridge), and True Bistro (Somerville). Havelick also favors Boston's raw-foods and juice bars Cobeet and Pressed, and FoMu, for its "amazing vegan ice cream."

The Boston Vegetarian Society, where Havelick is a board member, began with



COURTESY OF WALNUT GRILLE

Walnut Grille tends toward towering dishes and fanciful presentations.

potlucks in a church basement in the 1980s and has seen a steady rise in membership and attendance at its events, including the



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There are many different reasons to join the Harvard Club of Boston. Marcus DeFlorimonte is a Harvard alum and real estate developer as well as a Harvard Club Board Member and Chair of the Athletic Committee. Here's why he joined.

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- Marcus DeFlorimonte, PMD'95

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COURTESY OF VEGGIE GALAXY

The lemon meringue pie at Veggie Galaxy, in Cambridge, is an all-around favorite.

annual Boston Veg Food Festival (October 21 and 22). "Our biggest problem," society president Evelyn Kimber says, "is finding a space to hold all of the people who want to come." Thus, two Thanksgiving gatherings were held at Red Lentil, in Watertown, last November, instead of the usual one.

About 5.4 percent of adults in the Northeast are strict vegetarians, according to a 2016 national Harris Poll commissioned by the Vegetarian Resource Group, but Havelick points to the untold numbers of part-time vegetarians ("like my parents") or those who identify as "flexitarians, pescatarians, 'vegan before 6 p.m.,' et cetera," who eat mostly plants and view vegetarian options as "attractive and crave-able in a way that is new." Millennials, he adds, are particularly prone to explore, and stick with, meatless diets.

These groups, he contends, are responding to health-education efforts and media reports about "the benefits of vegetarian living and, conversely, the harmfulness of the animal-agriculture industry...a leading cause of the most serious environmental problems of our time" (see "Eating for the Environment," page 14). For more information, he suggests, anyone can attend the Ivy League Vegan Conference, this year held at Harvard on March 24-26.

On a personal note, Havelick adds, "If it's possible for me to live a healthy life without harming animals, that's the life I want." Now, the plant-based food industry—and mainstream restaurants—are making it much easier for anyone to live that way, too.

Besides Walnut Grille, here are other recommended vegetarian/vegan restaurants:

Grasshopper (www.grasshoppervegan.com). For years, this old-style Asian-fusion restaurant in Allston was the only vegetarian game in town. It offers "meaty" seitan and tofu dishes, along with the lighter vermicelli noodles with a side of spring rolls (\$9.50).

Masao's Kitchen (www.masaoskitchen.com). The self-serve buffet of fresh veg-

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HARVARD SQUARED



COURTESY OF RED LENTIL

Grilled oyster mushrooms over "jerked" tempeh at Watertown's Red Lentil

an fare (about \$10 per pound) is prepared without chemicals or processed sugar. Take meals to go, or eat within the relatively spare, but friendly, atmosphere on Moody Street in Waltham.

Red Lentil (www.theredlentil.com). The diverse menu, and crowd, fit right in among Watertown's clutch of pizzerias, Armenian markets, and the ever-popular Deluxe Town Diner (also a source of delicious, plant-based dishes). Try the macrobiotic bowl (\$13.99), "Gobi Manchurian" spiced fried cauliflower (\$9.50), or Jamaica jerk tempeh, with braised yams and vinegary coleslaw (\$14.99).

True Bistro (www.truebistroboston.com). Near Somerville's Davis Square, True Bistro serves refined vegan fare in an elegant, yet not fancy or overpriced, setting. A recent menu offered a wilted spinach salad with smoked tofu, black vinegar, and goji berries (\$9), roasted cauliflower croquette and aged cashew cheese (\$10), and seitan satay (\$18).

Veggie Galaxy (www.veggiegalaxy.com). The Central Square retro diner serves meatless comfort food—"corned-beef" seitan Reuben sandwiches (\$10.95), shepherd's pies made with quinoa (\$13.95)—and stupendous desserts. Try the vegan "Mile-High" lemon meringue pie (\$5.25) or the pudding parfait with coconut whipped cream (\$5.75).

Zhu (www.zhuvegan.com). An inviting, casual stop for pan-Asian vegan food in Arlington. Especially tasty are the scallion pancakes topped with house-made mango salsa (\$6), kung pao eggplant with tofu (\$14), and stir-fry vegetables and green-tea flavored soba noodles (\$10).

Farther afield, try Greenleaf Vegetarian and Vegan Restaurant, in Framingham, and Jamaican fare at Belmont Vegetarian Restaurant, in Worcester. In both cases, modest storefronts belie the creative cuisine prepared within. ▢

JOHN HARVARD'S JOURNAL



THE RIGHT STUFF: Freshman point guard Katie Benzan, shown shooting in the home opener against Maine, led the Harvard women's basketball team in minutes played and points scored per game through January, helping to spark 16 consecutive wins (after an initial loss at Minnesota)—tying the longest such streak in Crimson basketball history and raising hopes for an Ivy League championship. For full coverage of winter sports, please see pages 26-30.

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Endowment Overhaul

BEGINNING his eighth week as president and CEO of Harvard Management Company (HMC), N.V. Narvekar on January 25 announced sweeping changes in how the University's \$35.7-billion endowment will be invested. Change was expected. HMC's average annualized rate of return on investments during the past 10 years has been 5.7 percent: significantly below both its targeted return of about 8 percent and the re-

sults recorded by peer institutions including MIT, Princeton, and Yale—all with investment processes that differ from Harvard's and that earned returns above 8 percent in that period. Because distributions from the endowment account for more than one-third of Harvard's operating revenues, persistent weak performance puts academic aims at risk across the University. Perhaps accordingly, Narvekar, who arrived after a successful tenure at Columbia's investment operation (8.1 percent annual rate of return

during the past 10 years), moved swiftly to effect major changes, including:

- outsourcing management of several classes of assets—in effect, shifting away from HMC's traditional “hybrid” model of investing, with a significant portion of the assets managed internally by HMC staff members;

- reducing the 230-member staff by half, with the changes to be completed by the end of 2017; and

- appointing new senior investment professionals, including three former associates from his Columbia team.

In a letter describing the changes, Narvekar noted that after past strengths, HMC now faces “challenges to our continued success. The investment landscape has evolved significantly, requiring us to adapt two aspects of HMC's organizational and investment models in order to maximize performance over the long term. The first is the hybrid model of investing, which utilizes a mix of internal and external investment teams, and the second is a ‘silo’ approach to asset management that focuses team members as specialists in specific asset classes or strategies.”

On internal management, he wrote, “the tremendous flow of capital to external managers has created a great deal of competition for both talent and ideas, therefore making it more difficult to attract and retain the necessary investment expertise while also remaining sufficiently nimble to exploit rapidly changing opportunities. As a result...active hedge fund-like investments managed internally at HMC now comprise a very small percentage of the overall endowment. We can no longer justify the organizational complexity and resources” necessary to support them. Those internally managed funds will be outsourced by June, and the team that manages HMC's direct real-estate investments (performing strongly since inception in 2010) will be spun off as a separate organization by year-end. The timber and agriculture portfolio, where returns have lagged, will be retained “at this time.” Severance costs will be reported as HMC ex-



COURTESY OF HARVARD UNIVERSITY

N.V. Narvekar

penses (reducing investment returns when incurred).

Turning to portfolio management per se, Narvekar said a “second organizational change is ultimately far more profound” for improving investment returns. Rather than focusing on individual asset classes (HMC's traditional “policy portfolio” of allocations among stocks, bonds, private equity, real estate, and so on, and the modified model

introduced by Narvekar's predecessor, Stephen Blyth, in 2015), HMC will now adopt a “generalist” process and style. In place of “an overemphasis on individual asset class benchmarks,” the goal is for “all members of the investment team [to] take ownership of the entire portfolio. The team will have a singular focus: the performance of the overall endowment. HMC's existing investment professionals focused on externally managed funds will form the core of this generalist team. Importantly, the generalist model will be supported by a partnership culture

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An Orphaned Sewing Machine

“Every object tells a story, and most objects tell many stories,” some transcending “boundaries between people, cultures, and academic disciplines,” writes historian Laurel Thatcher Ulrich in her lively, lavishly illustrated account of how Singer sewing machines like this one link global commerce, fine arts, science and technology, diplomacy, history, and women's empowerment.

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in which the collective team engages in focused debates about investment opportunities both within asset classes and across the investment universe.” That approach, he noted, is used “to varying degrees by a number of leading endowments,” and he seeks to adapt that process to Harvard’s requirements. Compensation will shift from individual portfolio managers’ performance relative to benchmarks for asset classes, toward the performance of the endowment overall; that change takes place this summer.

Getting the desired results will take time: existing investments, many illiquid, must be redeployed; new people and processes will have to arrive and take effect. Narvekar counseled patience, writing that he and HMC’s board “agree that transforming HMC’s organization and portfolio is a five-year process....[M]y experience at Columbia’s endowment proved that it did indeed require about five years to position both the organization and portfolio in order to deliver strong risk-adjusted returns.... While I believe HMC’s investment performance will be challenged in fiscal year 2017, by the end of the calendar year the organization will look and act very differently than it does today. It is also likely that our organization will experience more changes....When complete, the organization and portfolio will be better aligned to maximize future risk-adjusted returns at the appropriate risk appetite for Harvard.”

Beginning immediately, effecting those hoped-for improvements will involve new senior leaders: Rick Slocum, HMC’s first chief investment officer; and a trio of senior portfolio, analytical, risk, and research personnel from Columbia: Vir Dholabhai, Adam Goldstein, and Charlie Saravia, all appointed managing directors of HMC’s investment team. Read a complete report at harvard-hmc.com/hmc-overhaul-17.

—JOHN S. ROSENBERG

News Briefs

Washington Worries

CHANGES TO FEDERAL POLICY on finance and higher education may pose significant risks to universities. U.S. Representative Tom Reed (R-N.Y.), who was appointed a vice chair of President-elect Donald J. Trump’s transition team in late November, filed a new version of his Reducing

HARVARD PORTRAIT



Elizabeth Hinton

Elizabeth Hinton’s fascination with the past started early. “As a little girl, I used to ask my parents to tell me about what I called then ‘the olden times.’” One central piece of family history concerned their decision to leave Georgia in the early 1940s. One night, a white man sat down far to the rear of an otherwise empty bus, and when Hinton’s grandfather refused to change his own seat, the bus driver pulled out a gun. Eventually, her grandfather found a job in Michigan, where Hinton grew up. “I like to say I was born in Ann Arbor, came of age in New York”—she studied at NYU and Columbia—“and now I’m coming into myself in Boston.” In 2014, she joined Harvard’s history and African and African American studies departments as an assistant professor. Behind her desk, posters of McGruff the Crime Dog glare at visitors—a fixture of public-service announcements, billboards, and TV commercials in the 1980s, when he exhorted citizens to “Take a bite out of crime.” Hinton’s recent book, *From the War on Poverty to the War on Crime*, draws on government archives and a flurry of Freedom of Information Act requests to trace mass incarceration in the United States back to the Johnson administration. “Some of the first feedback I got on what would become the book,” she says, “was from men who had experienced the criminal justice system first-hand,” whom she’d met while visiting loved ones in correctional facilities in California. In a small city in the central part of that state, she’s now working with local law enforcement on new approaches to procedural justice. “The Chief kind of considers me the Stockton police historian,” says Hinton. “The ways in which history is centered in ideas about moving forward, really, really gives me hope about what’s possible.”

—SOPHIA NGUYEN

Yesterday's News

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

1917 The editors advise Harvard men who want to serve their country in case of war to contact Professor R. M. Johnston, who is "acting in correspondence with the Intercollegiate Intelligence Bureau." College-educated men are particularly sought after, because "Intelligent, unhysterical effort in the handling of American resources, human and physical, in the months to come, may effect far-reaching results."

1927 The College Entrance Examination Board announces a new, standardized admissions exam called the Scholastic Aptitude Test.

The Department of Fine Arts, backed by the Fogg Museum and the University Library, announces plans to establish a library of those "motion picture films" voted worthy, by a faculty committee, of preservation as works of art.

1957 The "Harvard 'Veritas' Committee" circulates a letter urging fellow alumni to complain to the Board of Over-

seers about the appointment of J. Robert Oppenheimer '26 as the biennial William James Lecturer.

1962 The Radcliffe Government Association's rules committee recommends that any student past her freshman year be allowed to sign out of her dorm in the evening until any hour without advance permission. But, reports the Undergraduate columnist, a "determined number of 'Cliffies'" insist that committee members mistakenly consider the average Radcliffe girl a stable and responsible adult capable of making reasoned decisions about "social problems." Says one opponent, "People our age are notorious for being foolish."

1972 The Committee on Housing and Undergraduate Life votes to condemn the term-paper industry after 40 to 60 student papers are stolen during intersession. Attorneys from Harvard and other Boston-area universities meet to consider possible court action to close the firms down.

Excessive Debt and Unfair Costs of Education (REDUCE) Act earlier that month. It would require institutions with endowments exceeding \$1 billion to use "at least 25 percent of their investment gains to reduce the costs of attendance for students from middle and working class families."

The legislation appears not to take into account students' actual costs of attendance after financial-aid awards—which in many cases are now higher at public institutions than endowed private ones, after a decade of state budget cuts aimed at public universities. The National Commission on Financing Twenty-First Century Higher Education, based at the University of Virginia, released its report a week after Reed updated his plan. The bipartisan group of political and business leaders recommended investments in low-cost education models, productivity enhancements, and more—but its first recommendation was for \$15 billion in additional federal funding and \$5 billion in additional state funding for public institutions.

Nor does Reed make allowances for endowment gifts made for specific purposes: the tax exemption for endowment earnings, he writes bluntly, should "encourage colleges to distribute the profits from their investments to help offset the costs of attendance." He does not allow breathing room for gifts to support research, the arts, or other goals: "For those colleges that fail or refuse to reinvest in their students, an immediate 30 percent tax would be applied to their investment income with the possibility of a 100 percent tax for continuing violations....In addition, failure to comply would result in the school losing their ability to receive charitable contributions." Under Reed's plan, would Harvard be unable to accept the \$400-million and \$350-million gifts, respectively, that endowed the engineering and public-health faculties during the current capital campaign—even though both schools aim at practical, applied solutions to pressing national and global problems? What about recent nine-figure gifts to Columbia, the University of Southern California, and the University of Oregon for neuroscience, cancer, and general scientific research? (Indirectly, of course, an endowment gift that pays for libraries or professorships means that those revenues don't come from tuition, but his propos-



Illustration by Mark Steele

als don't seem focused that way.)

More broadly, proposals to reduce the top income-tax rates would reduce the incentive to make charitable gifts. On the other hand, proposals to end hedge-fund and private-equity managers' preferential "carried interest" tax rate might *raise* that class of substantial donors' taxes somewhat, making their philanthropic pursuits more valuable.

As fundraisers digest these possibilities—and fight to control their resulting indigestion—the Council for Advancement and Support of Education (CASE) and other trade groups are sounding the alarm. CASE, for instance, is disseminating

fact sheets for member institutions to use in rebutting arguments for taxing endowments, targeting a fixed percentage of their distributions for financial aid, or mandating a payout rate (like the rule requiring non-operating foundations to distribute 5 percent of their market value annually). Business should be brisk for higher-education lobbyists.

—JOHN S. ROSENBERG

Sanctions Scrutinized

FOLLOWING MONTHS of heated debate within the Faculty of Arts and Sciences (FAS) over the policy of sanctioning students who belong to unrecognized single-

gender social organizations (final clubs, fraternities, sororities), Harvard College dean Rakesh Khurana announced on January 25 that a committee including faculty members, predominantly those holding administrative positions, would convene "to consider whether the policy can be improved, either by changing aspects of its existing structure, or through some broader revision." That policy, set to take effect with the class of freshmen arriving this August, prevents student members of such organizations from holding leadership positions in recognized undergraduate organizations, and precludes their eli-

University People

Press Changes

William P. Sisler, director of Harvard University Press since 1990, will retire at the end of the academic year. His tenure saw the publication of *Capital in the Twenty-First Century*, by Thomas Piketty, an analysis of the dynamics driving the distribution of wealth in Europe and the United States, which has sold more copies than any book in the press's history, as well as an expansion overseas and initiatives that included the digital Loeb Classical Library and the Murty Classical Library of India. For more about Sisler, see "The 'Wild West' of Academic Publishing," January-February 2015, page 56.



STU ROSNER

William P. Sisler

Curator's Homecoming

Makeda Best, Ph.D. '10, most recently assistant professor in visual studies at the California College of the Arts, has been appointed Menschel curator of photography at the Harvard Art Museums. The appointment is both a homecoming and the source of a potentially fruitful collections-classroom collaboration: her doctoral adviser was Robin Kelsey, Burden professor of photography and dean of arts and humanities.



UNIQUE NICOLE

Makeda Best

Schwarzman Scholars

Ten Harvard alumni and students have been awarded Schwarzman Scholarships for a year of master's study at Tsinghua University, in Beijing—a recently created fellowship meant, in time, to carry the heft and prestige of the venerable Rhodes and Marshall scholarships. The future leaders include: Kayla Chen '16; Janet Eom '14; Anatol Klass '17; Quynh-Nhu Le '17; Tonatiuh Liévano, S.B. '14; Sophia Lugo '17; Rhea Malik '17; Jonathan Padilla '12; Bo Seo '17; and Bob Wu '15.



COURTESY OF SOPHIA LUGO

Sophia Lugo



COURTESY OF ANATOL KLASS

Anatol Klass

Academic Alumni

G. Gabrielle Starr, Ph.D. '99, dean of the College of Arts and Sciences at New York University, has been named president of Pomona College—the first woman and African American to hold that office. She succeeds long-time Pomona leader David W. Oxtoby '72, who also presided over Harvard's Board of Overseers during the 2013-2014 academic year....Elizabeth Bradley '84, a professor of public health and of global strategy at Yale, where she is also head of the Branford undergraduate residence, has been appointed president of Vassar.



JEFF HING/POMONA COLLEGE

G. Gabrielle Starr

Breakthroughs

The 2017 Breakthrough Prizes, each worth \$3 million, were conferred on Mendel professor of genetics and of medicine Stephen J. Elledge (for work on cell damage and cancer); and jointly on Andrew Strominger, York professor of physics, and Cumrun Vafa, Donner professor of science, with Joseph Polchinski of the University of California, Santa Barbara (for work on quantum field theory and string theory). Professor of physics Xi Yin received a \$100,000 New Horizons prize for early-career work in physics.



KRIS SNIBBE/HPAC

Andrew Strominger



STEPHANIE MITCHELL/HPAC

Cumrun Vafa

Moving On from Mather

Mather House faculty deans Christie McDonald, Smith professor of French language and literature and of comparative literature, and Michael D. Rosengarten, will step down at the end of June, concluding seven years of service. Their decision coincides with McDonald's retirement from the faculty.

Title IX Exit

Mia Karvonides, Harvard's Title IX officer and director of the office for dispute resolution—and thus the central figure in setting sexual-assault policy and hearing cases on campus—has departed to become enforcement director in the U.S. Department of Education's Office of Civil Rights. She came to Harvard in March 2013.

gibility for Rhodes, Marshall, and other scholarships that require College endorsement. When announced last spring, the policy drew criticism from faculty members and students alike. And in an Undergraduate Council referendum question last fall, students favoring repeal of the sanctions outnumbered those who supported them by a two to one ratio.

Khurana said the committee will conclude its work by the end of this academic year and present its recommendations in the fall, with time allowed for broader faculty input before the proposed guidelines are forwarded to President Drew Faust for approval. In the meantime, the current policy remains in effect.

Discussion of the sanctions, which were announced without prior vote of the faculty, consumed the better part of the November and December faculty meetings. Khurana's announcement led former College dean Harry R. Lewis to withdraw his motion opposing the sanctions, discussion of which would likely have continued at the February 7 faculty meeting (after this issue went to press). For more background, see harvardmag.com/finalclub-review-17.

~JONATHAN SHAW

Faculty Figures

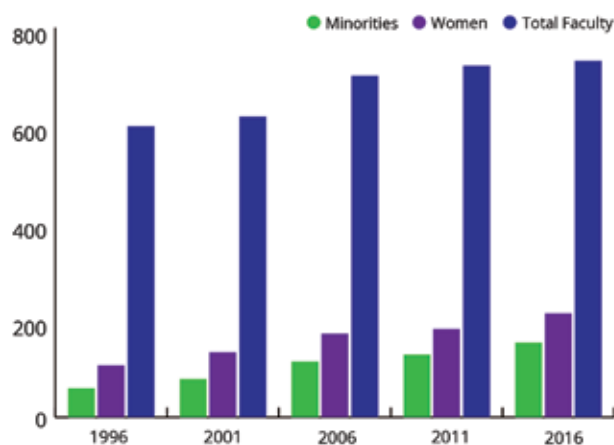
ONE WAY the constraints on the Faculty of Arts and Sciences (FAS) show up is in the relatively restrained growth of the faculty itself. From the fall of 1996 to the

fall of 2006, the number of professors rose 17 percent, from 598 to 701. In the decade since, the cohort grew just 4 percent, to 732 (with engineering and applied sciences, and life and physical sciences, accounting for 14 and 30 net new positions, respectively, and the arts and humanities and social science divisions 12 and 1 positions smaller, respectively).

FAS plans to maintain this level cohort, even as its composition continues to shift toward sciences—particularly the applied varieties. Bringing aboard new scientists entails FAS outlays to fit up expensive laboratories and fund new colleagues' research until they qualify for competitive, external sources. The financial section of FAS dean Michael D. Smith's annual report refers to numerous capital investments and fellowship commitments to advance work across the sciences.

Another change accompanies this strategic remaking of the faculty. The "faculty trends" section of the report notes that of 103 FAS faculty members who have signed agreements since a formal retirement-planning program began in 2010, 90 (more than 87 percent) have been men, and 13 (just un-

The Faculty's Changing Composition



Source: Faculty of Arts and Sciences, Dean's Annual Report 2016

der 13 percent) women. As they retire, notes the report, and FAS continues "to recruit and promote from more inclusive candidate pools, we expect to see greater diversity in the senior faculty." Along that dimension, at least, FAS can expect to progress toward one of its important goals even when the faculty as a whole is not growing.

In the near term, of course, retirement of a senior faculty member and his or her succession by a junior one may have the effect of reducing compensation costs for a time. But as the flow of junior appointees ascends toward the tenured ranks (more than three-quarters of FAS professors are tenured), that buffer would diminish.

~JOHN S. ROSENBERG

THE UNDERGRADUATE

A Coddled Campus?

by MATTHEW BROWNE '17

ABOUT 30 of us packed into our Adams House suite to watch the election returns: roommates, girlfriends, buddies, friends of friends, strewn across Craigslist-procured couches, the cluster of Harvard dorm chairs, and the stained carpet. The room glowed only faintly from string lights and the TV. We watched on CNN because it seemed like the common choice, what you watch on mute in the airport or a hospital wait-

ing room. By the end of the evening, when a Trump victory was all but inevitable, the room was disconsolate. People cried, phoned loved ones, hugged, slumped, and kissed as what we had thought was unthinkable happened.

There was a funereal spirit on campus the next day. Cambridge looked like a town does the day following a big storm: clear streets, new earth, and the glaze of something sinister. I heard rumors of can-

celed classes, tearful seminars, and professors giving speeches and calls to action. But my own academic day was remarkable in its unremarkableness. I went to my English section and tried my best to contribute to the discussion, not knowing whether all of our reading of *Infinite Jest* should be related back to Trump or none of it. It was hard to talk. I was pretty quiet and so was everyone else.

The next day, a family friend sent me a text message, asking if classes at Harvard had been canceled. She sent me an article she'd seen from some alt-right publication, entitled "Yale Professor Cancels Exam for Snowflake Students Distraught at Election Result." It said that the election-mourning liberal students had "wiped their tears, and pulled themselves together enough to ask their professors to cancel their exams because they were so upset by the results."

The Long Count

The vote on whether to organize a graduate-student union, cast on November 16 and 17, remained unresolved at press time, in early February. Preliminary results, released on December 22 after protracted review of 1,200-plus ballots subject to challenge and individual certification, showed 1,456 students voting against unionization and 1,272 voting in favor. But more than 300 ballots were still subject to challenge on grounds concerning eligibility: more than the margin reported. Accordingly, the National Labor Relations Board, which oversees the voting, has convened hearings, scheduled to begin February 21, to review the ballots and related issues concerning the list of eligible voters and other polling concerns. Read a full report at harvardmag.com/grad-unionvote-17.

Divesting Deniers

Barnard College's presidential task force to examine divestment recommended in December that the institution "divest from all fossil fuel companies that deny climate science or otherwise seek to thwart efforts to mitigate the impact of climate change." The recommendation, expected to be endorsed by the trustees' committee on investments in March, would "align the college's investments with its core mission, centered on academic freedom and scientific integrity" and would "enable the college to distinguish between companies based on their behavior and willingness to transition to a cleaner economy and could create incentives for the poorest performers to change their ways." The report echoes the 2015 findings of MIT's Climate Change Conversation Committee; it argued that "universities should not invest in firms that engage in or actively support activities that are antithetical to their mission....One activity that is clearly antithetical to MIT's central mission of education is disinformation, which is the opposite of education. In the arena of climate, well-funded disinformation campaigns are well documented

Brevia



LAW LEADER'S LEAVETAKING.

Martha Minow, dean of Harvard Law School (HLS) since 2009, announced in January that she would step down at the end of the academic year; she plans to return to teaching and scholarship, and to "more robust engagement with the significant issues of the day" (she is vice chair of the Legal Services Corporation). Minow became dean at the depths of the financial crisis, and also had to adjust the school's budget to accommodate financing of its huge new Wasserstein Caspersen Clinical complex; she supported new clinics and programs in criminal law, immigration, and the needs of military veterans, and invested heavily in loan forgiveness for students pursuing public-service careers, a public-service venture fund, and other fellowships. She departs knowing that HLS's \$305-million capital campaign has "surpassed the initial goal," a gratifying outcome during its bicentennial year. President Drew Faust has appointed a committee of a dozen faculty members who will advise on the search for Minow's successor.

and lie at the heart of this nation's current paralysis in addressing the issue." It recommended a formal ethics advisory council to identify and prompt MIT action on such practices, given that "institutions of higher education have a societal obligation

to expose disinformation as part of their educational mission. At the very least, they should not invest in it."

Renaming Regimen

As universities navigate toward coming to terms with past involvements with slavery (see Harvard Law School's reconsideration of its official shield, at harvardmag.com/hlsshield-16 and harvardmag.com/slaves-16), Yale—which earlier decided to retain the name of alumnus and South Carolina slavery advocate John C. Calhoun on an undergraduate residence—has put in place a new process for reconsidering historic naming decisions. It assumes that renaming should be rare, and undertaken only after consideration of an existing name in light of the university mission, among other factors.

Warren professor of American legal history Annette Gordon-Reed, who is also professor of law and of history, and was engaged in the Harvard Law deliberations but opposed the decision to abandon the shield, told *The New York Times* that the Yale committee "did a very good job fleshing out the issues and creating guideposts on how to deal with a question that is probably going to come up again and again."

Nota Bene

COURT PICK. As this issue went to press, President Donald J. Trump nominated Neil M. Gorsuch, J.D. '91, a judge on the U.S. Court of Appeals for the Tenth Circuit, to fill the Supreme Court vacancy created by the death of Justice Antonin Scalia, LL.B. '60. Gorsuch is a classmate of President Barack Obama, who nominated Merrick B. Garland '74, J.D. '77, chief judge of the U.S. Court of Appeals, District of Columbia Circuit, for that post in March 2016. His nomination was never taken up by the Republican-controlled Senate.

CONSTRUCTING THE CLASS OF 2021. The College, like most peer institutions, reported another increase in early-action applicants

for admission (to 6,473 this year), and a resulting reduction in the proportion accepted (14.5 percent—the lowest rate since early action was reinstated in 2011); read the details at harvardmag.com/earlyaction-16. Yale, which begins welcoming larger undergraduate classes this year, with the opening of two new residences, had nearly 5,100 early applicants—up 9 percent.

CHALLENGING THE BAN: Following the Trump administration's executive order banning immigration to the United States from seven predominantly Muslim countries, President Drew Faust shared a letter of solidarity and action with the Harvard community. Asserting "We are all Harvard," the president outlined several steps the University would take to protect students and faculty. These include searching for a full-time Muslim chaplain, as well as appointing a staff attorney at Harvard Law School's Immigration and Refugee Clinic to focus on the mounting needs of undocumented students. The letter appeared in conjunction with a similar message of concern issued by the Association of American Universities, to which Harvard belongs. Harvard and seven other universities filed an amicus brief on February 3 in a case challenging the executive order, arguing that it "undermines the values and contributions of open academic exchange and collaboration."

GLOBAL HARVARD. The Fairbank Center for Chinese Studies has opened a joint research venue with Sichuan University, in

Chengdu, China—a western complement to the existing Harvard Center Shanghai, meant to facilitate work in Tibetan studies, Chinese minority groups, and the art and architecture of the region....Separately, the Center for Middle Eastern Studies has opened its first overseas office, for teaching and research, in Tunisia.

CAMPAIGN TALLIES. Although the University will not update its fundraising total until after the end of the fiscal year in June, individual schools have been touting their totals since the tally of "more than \$7 billion" was reported last September (see harvardmag.com/7billion-16). By December 31, the Harvard Kennedy School had recorded gifts and pledges of \$579 million, well exceeding its \$500-million goal. In addition: dean Martha Minow noted that Harvard Law had exceeded its \$305 million goal (see page 23); the Medical School reached \$614 million last November, closing in on its \$750-million goal; and the Business School has exceeded its \$1-billion target—and continues to pursue gifts for its priorities.

HMX. Harvard Medical School is running a pilot version of HMX, its online "fundamentals" courses that, like the Business School's HBX offerings, serve diverse learning needs. Modeled on the materials incoming M.D. students take the summer before matriculating in Longwood, the sequences in immunology and physiology are described as suitable for college students interested in medicine (and thus applying to HMS or other schools), individuals exploring other healthcare careers (physician assistants, nursing, pharmacy), high-school students, clinicians, and learners generally. The Harvard community pilot, running this winter and spring, costs \$1,000—another indication of profession-

al schools attempting to monetize their teaching online.

HARVARDX UPDATE. An annual review of Harvard and MIT online courses, published in January and covering 290 courses and 4.5 million participants, shows that about 740,000 of the learners (one-sixth of the total) accessed half or more of each unit's content. Registrants continue to be overwhelmingly international (71 percent), and include a significant cohort of current or past teachers (32 percent), suggesting interest in continuing education in their fields. Certification for course work leveled off in 2016, once fees were imposed, underscoring the problem of finding a way to elicit a willingness to pay for courses that are expensive to produce but disseminated free online.

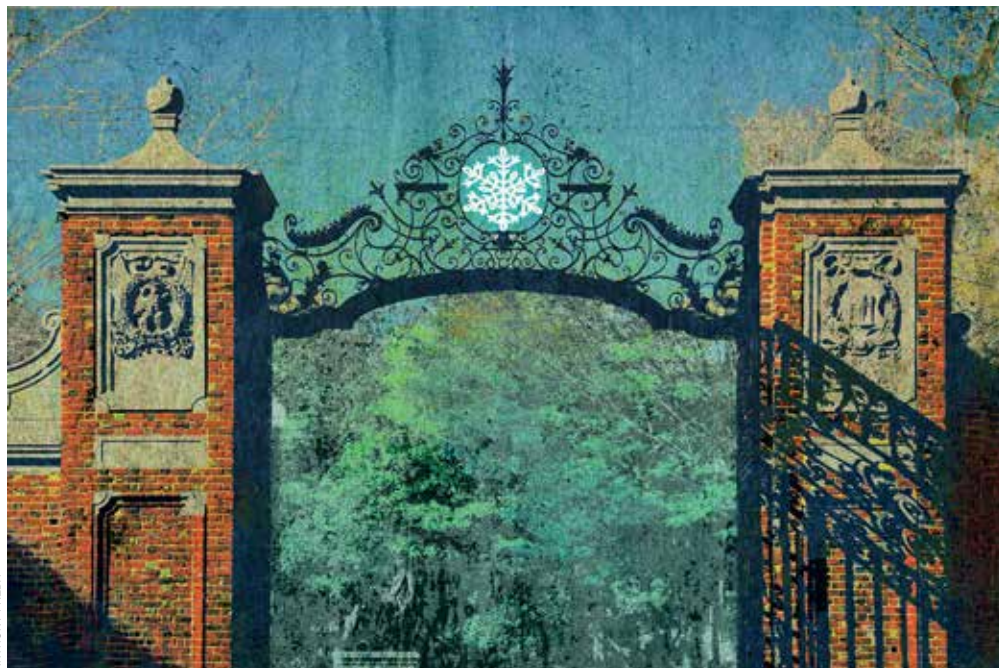
MISCELLANY: Loeb associate professor of the social sciences Laurance A. Ralph, the author of acclaimed anthropological research on inner-city gangs and violence, will move to a tenured appointment at Princeton this fall....MIT has launched an MITxMicroMasters program in development economics, complementing a 2015 program in supply-chain management; participants complete work online and then may enroll for a campus-based master's degree....DuBois professor of the social sciences Lawrence Bobo, chair of the department of African and African American studies, and Martha Minow, dean of Harvard Law School and senior fellow of the Society of Fellows (see prior page), have been elected fellows of the American Academy of Political and Social Science....As Jared Kushner '03 sorted out his financial affairs and ethical obligations in order to serve as senior adviser to his father-in-law, President Donald J. Trump, he was represented by Jamie S. Gorelick '72, J.D. '75, former deputy attorney general, former member of the Harvard Board of Overseers, and a partner at WilmerHale, where the Corporation's senior fellow, William F. Lee, is also a partner....Sheehan Scarborough '07, M.Div. '14, has become BGLTQ student life director in the College, succeeding inaugural director Van Bailey, now at the University of Miami....The Boston Calling Music Festival, relocating from City Hall Plaza downtown, will offer performances at its new home, the Harvard athletic fields, on May 26-28, Memorial Day weekend.



LAW REVIEW FIRST. The *Harvard Law Review* has elected its first black woman president. Imelme Umana '14, L '18, assumes the post 27 years after Barack Obama, J.D. '91, became the Review's first black male president. As an undergraduate, Umana served as student president of the Harvard Institute of Politics and concentrated in African and African American studies and in government. Elected from a pool of 12 candidates, she will lead more than 90 student editors and staff members at the journal.

COURTESY OF IMELME UMANA

This seemed to be part of a growing narrative about collegiate politics and the “coddled” campus intellectual culture. And it isn’t just the domain of alt-right sites. Even liberal-leaning media—in salvos like “The Coddling of the American Mind” in *The Atlantic*, “I’m a Liberal Professor, and My Liberal Students Terrify Me” in *Vox*, “Sexual Paranoia Strikes Academe” in *The Chronicle of Higher Education*—have inveighed against a sort of “new academia” (for lack of a better term) of critical cultural studies that’s become popular in universities across the country. Pundits worry that, by emphasizing the imprint of historical power structures on the individual, especially their impact on race, gender, and sexual identities, new academia promotes an individualized, emotional response to ideas, rather than an idealized cool and removed affect. In this take, new academia has coddled students by cultivating sensitivity and emphasizing semantics over proper intel-



ANTHONY FREDA

lectual rigor, swirling undergraduates into a half-baked liberal consensus that’s inadequately interrogated on campus at large.

While at home over winter break, the question I was asked the most by friends

and family members (particularly the older ones) was about the political culture on campus and the reaction to Trump’s election. They seemed to have that popular critique in mind. They wondered if there was

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**TURN TO
PAGE 71**

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**SPOTLIGHT ON
ITALY**



anyone on campus who supported Trump, if the patently liberal student body had crawled into a corner following the election, unable to face a country in which millions of people leaned differently than they imagined.

What I can say is this: I haven't had a substantive conversation with a fellow undergraduate who vocally identifies as a Trump supporter. I presume there are some out there who voted Trump and are just being quiet about it, but it strikes me that there was genuinely almost zero support for his campaign on campus. Even the Harvard Republican Club refused to endorse Trump, the first time they hadn't backed the GOP candidate in their history. Still, it doesn't seem that the political consensus here is the result of an addled, overly sensitive generation.

The formulation of the popular coddled-campus critique is questionable. Not only are some of its claims debatable—as if there were a way to confidently divide the parts of the thought process that are emotional from what is properly intellectual—but its characterization of campuses doesn't seem to align with our reality. We don't feel the pressure of some gag order that prevents us from talking about ideas that challenge our psyches. In fact, we talk about Trump ad nauseam. The Clintonite consensus and shock of the electoral result weren't a product of an echo chamber wherein no alternative viewpoints are discussed. Critics like to assert that new academia has caused us to retreat inward from opposing views, but, if anything, I think our academic tools encourage *more* bipartisan understanding. By learning to see the influence exerted by social and historical forces, we have a much more empathetic understanding of Trump supporters than we might otherwise. Beyond the frustration with the new regime and its political agenda, much of the conversation in the wake of the election has sought to understand the factors behind Trump's support and where his supporters are coming from.

BUT I DO THINK the election has exposed a *different* type of coddling on our campus. Another critique, William Deresiewicz's "Don't Send Your Kid to the Ivy League," seems to get it right. His essay takes aim at an increasingly technocratic economy that has dictated the logic of our education. As the job market in the United States skews

toward fewer, high-skilled positions, and economic uncertainty and the threat of crisis challenge us all, people are pressured to view their education in terms of return on investment. Education, from an early age, becomes concerned with gathering credentials to ensure a secure position in the next stage. The admissions standards at ultra-competitive universities like Harvard, Deresiewicz argues, all but guarantee they accept students whose childhoods were rat races.

As admissions requirements become lengthier and more specific, our campus becomes filled with students who are different in many ways, but similar in one. We are, by and large, rule compliant and risk averse. Because of the exhausting amount of credentialing required for admission to a university like Harvard, securing our spot on campus is essentially predicated on our carefulness. If we're coddled, it's not because we've been encouraged to think too emotionally, but rather that the educational system has discouraged us from taking risks that might complicate a clear next step.

My education has been intellectually rigorous, teaching me to criticize my world deliberately and forcefully, while simultaneously encouraging me always to make careful decisions that ensure my security. I've been prompted to think that the world we've made isn't good enough for the people who live in it, but also that I should hesitate to act. To be concerned about the state of so-

ciety, but always to think, ultimately, about myself and my next step. Radical critiques of society run all over my syllabi, but never a workshop on effective political organizing.

If there's something bothersome about my education, it's that it has promoted a gulf between my thought and action. The election has only put that gulf in sharper relief. As many of my peers and I continue to reel from a shock that has challenged our notions of the reality of our country and global politics, there's now pressure on us to recognize our thought-action gulf and figure out how we want to deal with it. It seems like the true test of intellectual coddling on our campus won't be to see whether unsettled students are willing to have intellectually rigorous conversations about the world—we're already having them—but to see if we're fit to do something about our shock and outrage. The wave of my friends who attended women's marches around the country following the presidential inauguration makes me think we're becoming firmer in our politics and that we're stepping toward action. Once the decisions to try to make changes we believe in become more taxing for us, and riskier—like taking a different career path or dedicating more time to political action—perhaps we'll really see just how coddled we are. ▽

Berta Greenwald Ledecy Undergraduate Fellow
Matthew Browne '17 is a social-studies concentrator.

SPORTS

A "Players' Coach"

Ted Minnis makes Harvard an East Coast power in a West Coast sport.

WHEN the final buzzer sounded last November in the game that won the Harvard men's water-polo team its first conference championship—and clinched a spot in the NCAA tournament (another first), where the Crimson would go all the way to the Final Four—there was a giant, jubilant pile-up in the pool. Every player jumped in, splashing and hugging and laughing and cheering. At poolside stood their coach, Ted Minnis, who had arrived

at Harvard in 2010 with this very moment in mind. And with plans to build an East Coast powerhouse in this West Coast sport.

It is an uphill aspiration. In the east, Brown and Princeton are perennially strong, but Harvard had for decades labored in disappointment and futility; in the two seasons before Minnis came, the team won a total of 12 games—while losing 29. Back then, Minnis was a club-team coach in California, and although he often sent players on to the Ivy League, it was almost never to



Ted Minnis is Harvard's winningest water polo coach, but his path to Blodgett Pool included a few detours and sharp turns.

Harvard. When he accepted the Crimson job, he didn't move right away; first he called a Harvard equipment manager and asked him to send out a couple of shirts with the University crest. Minnis wore them every day for weeks at national competitions. "I'd go home and wash them and put them back on," he says. "I just wanted to get the Harvard name out there. Like, 'Hey, we have a water-polo program here. It's going to be pretty viable, and we'd love for you to start thinking about us.'" That fall, he arrived in Cambridge and moved his stuff into the small cinderblock coach's office atop the Blodgett Pool bleachers, with windows overlooking the water.

Tall and genial, with big round glasses and an almost bashful smile, Harvard's winningest water-polo coach is an unlikely figure on campus, not just as a Californian who hadn't been east much before he moved here, or as an African American in a mostly white sport. Until he took the Harvard job, Minnis had never coached (or played) college water polo. Here, he leads both the men's and women's teams: the men play during

fall semester, the women during the spring (the 2017 schedule got under way in early February, as this magazine went to press). Both teams draw heavily from the West Coast's deep well of talent; 11 of 16 men and 10 of 14 women on the current rosters hail from California. And while the men's 2016 season was historic—they finished with a best-ever 27-7 record—the women have also gained strength, rising steadily if not yet as spectacularly. For the first time, the women have completed back-to-back 20-win seasons, and last year's 22-10 record was the best finish since 2004. It earned Minnis a coach-of-the-year award from the conference's northern division, and Yoshi Andersen '16 became the first player in program history to win all-conference honors all four years.

Minnis calls himself a "players' coach,"

At a team practice (clockwise from top), Julie Harrison '20 shoots on goalie Sam Acker '19; Cleo Harrington '18 defends the net against Haley Bowe '19; and Angie Varona '20 looks to get the ball over her classmate Harrison.

and his players call him that, too. Practices are tailored around lab schedules ("We have a lot of science concentrators on our teams," Minnis explains), and he often eats with students in their dining halls and Houses. "Ted's the reason a lot of guys are here," says men's co-captain Joey Colton '17. Fifth-year senior Noah Harrison, a leading scorer who finished his Harvard career with 287 goals and 244 steals, succumbed to mononucleosis at the start of his junior year; he decided to take the whole season off and tack on an extra year of school (his major is molecular and cellular biology) so that he could play four full seasons with Minnis and the rest of the team. "I just really wanted to come back," he says.

MINNIS'S FIRST LOVE was basketball. Twenty-five years ago, that's what he would have guessed he'd be coaching now. Water polo was something he picked up after eighth grade because a friend's dad had played. Minnis was looking for a sport



Photographs by Stu Rosner

to occupy the school year's non-basketball months, and he was a swimmer, so he tried water polo. And discovered he was good at it.

The path to coaching, and to Harvard, was a little more circuitous. Minnis never graduated from high school. At 19, he became a father, and at 20 he earned a GED. A little less than a year later, his former PE teacher hired him to coach water polo at his old high school, Menlo-Atherton, near Palo Alto. "I still thank her every time I see her," he says. The school paid him \$2,000 for that season, and, Minnis says with a grin, "They let me volunteer as the JV basketball coach." He stayed there seven years, working at a meat company in San Jose to earn his living. "I'd go to work at 2 o'clock in the morning so that I would be able to get off in time to coach my high-school team," he recalls. When his son was in fourth grade,

Minnis and the boy's mother split up and his son came to live with him full time. "We stayed in this little studio apartment," he says. By then, water polo had won out over basketball and Minnis was coaching multiple teams, not only high school (including an independent all-girls school whose players he placed in Ivy League programs) but also youth and high-level club teams. At the same time, he was working toward his college degree, which he earned from San Jose State in 2005, when he was 35 years old. Then he started looking toward coaching jobs in college programs. "I always said if I ever got an interview, I was going to talk them into giving me the job," he says, grinning again. "And this was the first interview I got."

What's next? More championships, he hopes. "The main goal" all fall, he says, was to "win conference and bring the first

HM Explore More

For an online-only article about a lesser-known Harvard team making its NCAA tournament debut, see:

"Water Polo Is Home"

Talking strategy and swim lessons with two players from the Harvard men's team in the midst of their historic season



championship to Blodgett Pool and hang the banner." Now the goal is more of the same.

—LYDIALYLE GIBSON

Sports in Brief

Hockey

Heading into February and the sixty-fifth annual Beanpot Tournament, the men's hockey team held onto second place in conference standings with a 15-5-2 record (11-4-2 ECAC). The season started strong, with early wins over Cornell and St. Lawrence, and a 5-2 triumph over Boston College, in front of a sold-out crowd at Bright-Landry Hockey Center, that snapped the Eagles' 10-game win streak. But a series of bad losses on the road in January—including one to an underwhelming Rensselaer squad and an 8-4 drubbing at Dartmouth—broke the team's stride. It regained its footing by beating Brown (goalie Merrick Madsen '18 earned his second shutout of the season) and taking revenge on Dartmouth, 5-2. Senior forward Sean Malone led the team with 13 goals; classmate Tyler Moy and Ryan Donato '19 (son of Ziff head coach Ted Donato '91) had 11 each.

Squash

Both men's and women's squash remained unbeaten going into the season's home stretch. For the women's team (6-0 overall; 3-0 Ivy), perfect seasons are not unusual: in February 2016, the top-ranked women capped off their twelfth unbeaten season and captured the College Squash Association's Howe Cup for the fourth time in six years (and the second year in a row). The current season was looking similarly strong. In a January 27 match against Tufts, the Crimson earned its third clean sweep, winning 9-0. Four Harvard players—senior co-captains Dileas MacGowan and Caroline Monrad, along with sisters Alyssa and Sophie Mehta—all moved to 6-0 for the season, winning their respective matches.



Harvard's Ryan Donato rushes toward the net in the November game that broke Boston College's win streak.

Swimming and Diving

Standout freshman swimmer Mikaela Dahlke helped propel the women's swimming and diving team—last year's conference champions—to an unbeaten record through January, including a tough win over Penn (with perhaps tougher matchups still to come against Princeton and the also-unbeaten Yale). In the Penn contest, Harvard's divers dominated as well: led by Hannah Allchurch and Jing Leung, the Crimson took the top four spots in the three-meter event. Junior Alisha Mah claimed the top spot in the one-meter dive. Meanwhile, as of early February, Dahlke, who qualified for the 2016 Olympic trials, owned the Crimson's best times in the 50-, 100-, and 200-meter freestyle and the 100 butterfly.

Also unbeaten through January, men's swimming and diving opened the season by thrashing Cornell and Dartmouth by more than 100 points each, and then went on to beat Penn for its ninth win of the season. In that meet, junior Koya Osada, another qualifier for the 2016 Olympic trials, finished far ahead of his opponents in the 200 backstroke, winning by an astonishing 9.76 seconds.

—LYDIALYLE GIBSON

Bouncing Back

Basketball teams pursue Ivy League tournament titles.

AS THE CROW FLIES, it is just under 270 miles from Laviettes Pavilion to the Palestra. Yet entering the season, the Harvard men's and women's basketball teams anticipated a long and arduous path from their home gym to the site of the inaugural Ivy League basketball tournaments—Penn's Palestra arena, the “cathedral of college basketball.”

Stemberg men's coach Tommy Amaker's squad would begin the season with a 7,000-mile trek to Shanghai to play Stanford in the second annual Pac-12 China Game. Women's head coach Kathy Delaney-Smith and her team would accumulate plenty of domestic frequent-flyer miles, with visits to Minnesota and Kansas. Both squads faced the challenge of melding extremely talented freshman classes with a returning core of upperclassmen who had fallen short of the Ivy title the previous year.

Could Harvard basketball bounce back?

FOR Delaney-Smith, the conclusion to the 2015-2016 season—a 76-50 drubbing at Hofstra in the opening round of the Women's



National Invitation Tournament—left a sour taste. The 2016-2017 campaign opened with another disappointment: the Crimson lost a 103-87 shootout at the University of Minnesota.

But from there, the women went on one of the most impressive runs in program history. It began unassumingly: a trio of home wins against Maine, Samford, and Fairfield, along with road victories against Boston University and Sacred Heart. The winning streak was encouraging, but it came against low- and mid-major programs that the Crimson expected to beat.

Then came Temple. The Lady Owls were predicted to finish second in the high-powered American Athletic Conference behind only the University of Connecticut, winners of three consecutive national championships. But Delaney-Smith—the winningest head coach in Ivy League basketball history—and her team were ready. After falling behind 11-3 to start the game, the Crimson scored 10 straight points to take the lead, an advantage they never surrendered en route to a convincing 73-62 victory. Following the game, Delaney-Smith suggested that her team caught the Owls by surprise: “I think they were shocked by us, to be honest.”

As non-conference play wore on, it became harder to take the Crimson lightly. After easily dispatching the New Jersey Institute of Technology, 59-38, Harvard traveled to Kansas and knocked off the Jayhawks, 69-59, at historic Allen Fieldhouse. Following a break for exams, they then defeated Siena

Madeline Raster '19 (above) and classmate Sydney Skinner (#25, below left) have provided scoring in a deep Harvard backcourt; Jeannie Boehm '20 (bottom left) has anchored the Crimson's frontline.

and won the Fordham Holiday Classic, including a win over previously undefeated Buffalo in the tournament championship.

The women were winning with an exceptionally balanced attack. Freshman point guard Katie Benzan was the team's leading scorer, and six-foot-three classmate Jeannie Boehm was a force in the paint. Delaney-Smith surrounded them with outstanding shooters like Madeline Raster '19 and Sydney Skinner '19. This meant that Harvard could attack from multiple positions, as it did in the Kansas game, when four of five Crimson starters scored in double figures, and the fifth—sophomore Sydney Skinner—had nine points.

The team paired its skill with mettle. The Crimson came from 10 points down to beat La Salle on the road, and, as Ivy competition began, had a come-from-behind victory at home over Dartmouth. Then the schedule of back-to-back Ivy weekend games began, with a pair of squeakers at home: a 62-59 win over Cornell and a 70-68 victory over Columbia that Raster clinched with a game-winning jumper with 4.9 seconds remaining.

Raster's heroics pushed the Crimson's win streak to 16 games (tied for a program record) and set up an early Ivy showdown at Penn, the pre-season pick to win the league, and Princeton, which has appeared



First-years Justin Bassey (#20, at left) and Bryce Aiken (#11, lower left) are part of one of the most talented freshmen classes in Harvard history, while co-captain Siyani Chambers '16 ('17) leads the team in assists (right).

THE MEN'S TEAM was similarly eager to move on from last season, the first since 2010 when they failed to earn at least a share of the Ivy championship. It took them a little while to hit their stride.

After falling to Stanford 80-70 in Shanghai, the Crimson lost its next three games against Division I competition. Following the last of those, a 77-74 defeat at home against George Washington, Amaker lamented that his team was not doing "the little things" that were necessary to win: protecting the ball on offense, rebounding, and defending without fouling.

The comment pointed to the difficulty of relying so heavily on the team's highly talented freshmen. The seven first-year players—rated by ESPN as the tenth-best recruiting class in the country—could make extraordinary plays. Seth Towns's thunderous baseline dunk in Shanghai was a case in point. But they were also prone to mistakes, as when Towns and Chris Lewis fouled out during a Thanksgiving weekend contest at the University of Massachusetts.

So perhaps it was fitting that Corbin Miller '15 ('17), a co-captain and the team's oldest player, helped to stabilize the team in a home matchup with Fordham on December 3. A little over six minutes into the first half, Amaker sent Miller into the game. Three minutes later, he drained a three. Less than a minute after that: another three. Two more jumpers gave the Utah native 10 first-half points to stake Harvard to a 29-25 halftime lead and propel the Crimson to a 64-52 victory.

After the game, Amaker said that Miller's shooting did more than change the scoreboard. "We haven't been able to have those mo-

ments when we're getting two and three of those shots to fall," he pointed out, "getting a cushion or a lead and getting our guys some confidence."

That provided a springboard for five consecutive victories, the most impressive a 57-56 upset over Houston, one of Harvard's toughest opponents to date. The difference in that game was freshman point guard Bryce Aiken, who led the team with 21 points, including 13 in the second half to help spearhead a comeback. A resolute stop by Justin Bassey '20 and a rebound by Siyani Chambers '16 ('17) on the last possession also sealed the win and showed that the team was learning to defend without fouling.

Despite an early-January loss to Vermont, the Crimson sustained its momentum during the remainder of non-conference play and enjoyed a strong start to its Ivy slate, sweeping Dartmouth and splitting its annual road trip to Cornell and Columbia. Then came the biggest home weekend of the year: a matchup with Penn and Princeton, the pre-season Ivy favorite, on alumni weekend in early February.



The Crimson split those games, defeating Penn 69-59 on Friday evening before falling to Princeton 57-56 on Saturday, following a heartbreaking put-back by the Tigers' Steven Cook with seconds left on the clock. The defeat left the Crimson two games behind Princeton in the loss column for first place in the Ivy League.

ENTERING the home stretch of the regular season, both Harvard teams appeared on their way to qualifying for the inaugural Ivy League basketball tournaments—creating an opportunity to avenge their early defeats in conference play and compete for a berth in the NCAA tournament.

March Madness lies ahead.

~DAVID L. TANNENWALD



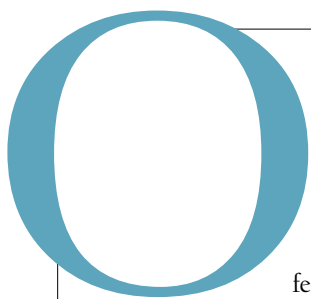
in the last two NCAA tournaments.

That first February weekend marked the end of the winning streak. On Friday night, the Quakers, who are also the defending league champions, throttled the Crimson 63-43. The following evening, Harvard fell to the Tigers, 63-58, in overtime. The setbacks provided a powerful reminder that, as successful as the Crimson had been in non-conference play, knocking off the league's reigning powers would not be easy.

Harvard Hardwood

Follow the men's and women's teams all season long: visit harvardmag.com/basketball to read game dispatches and analysis by David Tannenwald '08, and sign up at harvardmag.com/email to receive basketball alerts.





ON A bright Monday afternoon, the fairy godmother of introverts—author Susan Cain, J.D. '93, whose book *Quiet: The Power of Introverts in a World That Can't Stop Talking* caught fire five years ago—was sitting with her team around a long wooden table strewn with papers and laptops and long-empty coffee cups. Outside, another day idled by on this sleepy street in central Harlem. But inside, the dining room of a majestic old brownstone that had recently become the group's base of operations, Cain and her colleagues were deep into a philosophical discussion about loving kindness, the freedom and burden of authenticity, and the finer points of corporate networking. At one end of the room, two whiteboards leaned on easels, crammed with dry-erase shorthand: “vulnerability,” “journey,” “leadership,” “service,” “connection.” What the group was trying to get at was something about the nature of transformation: How do you shift a culture? What does it look like when that happens? And who is the person who can do it?

A few weeks earlier, Cain's nascent for-profit company, Quiet Revolution (stated mission: “To unlock the power of introverts for the benefit of us all”), had launched a pilot initiative, the Quiet Ambassador program, in a few offices and schools around the country. Cain is an introvert, too, and if you talk to her or read even a few pages of *Quiet*, you'll quickly encounter one of her central themes: the “extrovert ideal.” American culture, and the Western world more broadly, she argues, glorify extroversion. Classrooms and workplaces are designed around those who thrive amid the clatter and commotion of open office plans and brainstorming free-for-alls. Introversion, meanwhile, exists “somewhere between a disappointment and a pathology,” something to be overcome on the way to achieving a better self. “Today we make room for a remarkably narrow range of personality styles,” Cain writes. “We're told that to be great is to be bold, to be happy is to be sociable. We see ourselves as a nation of extroverts—which means that we've lost sight of who we really are.” In fact, she notes, one-third to one-half of Americans are introverts. If you're not one yourself, she often tells audiences, you're probably raising or managing or married to one.

And so: the Quiet Ambassador program, and this July afternoon meeting at the company's Harlem brownstone (called—what else?—the Quiet House) to throw around final thoughts. Its pur-

pose is not just to make introverts feel better, Cain says, but to help them work better and learn more, be better employees and students. The “ambassadors,” volunteers from participating organizations, undergo months of training by the Quiet Revolution team and then return to their peers ready to nudge school and office cultures in quiet-friendly directions. Advocating fewer joint projects, maybe, or more advance notice of meeting agendas. Finding new corners for solitude and silence, fostering clarity and communication among co-workers and classmates on opposite ends of the temperament spectrum.

But even as they were already training the first wave of ambassadors, the Quiet Revolution team was still trying to get a bead on who they were or, ideally, should be, what their core characteristics ought to be at the end. Paul Scibetta, the company's very extroverted CEO, stood at the head of the table with his chair askew behind him, manning the

whiteboards and guiding the conversation. Sunk deep in their seats, about a dozen Quiet Revolution team members sat around the table. At the start of the meeting, Scibetta had asked everyone to conjure up an image of a “fully formed ambassador” and then describe it. “What is it that we've created?” he asked. “What's the one thing you would want from us if you were that ambassador? Who would you want to become?” He was proposing an exercise in reverse engineering.

The answers were nebulous at first. The conversation meandered around “self-awareness” and “self-expression.” Navigating relationships. Leaving one's comfort zone. One person suggested that the ambassadors might be like marriage counselors, just not for marriage. Another talked about the tiny individual acts of bravery involved.

“In advocating for yourself as an ambassador, you're spreading a message,” she said. “I think people need to be told it's OK to revolt.” Cain brought up the importance of getting extroverts on board, both as ambassadors and as believers in the “for the benefit of us all” part of Quiet Revolution's mission statement.

Someone else picked up the thread: Heidi Kasevich, the director of “quiet education,” who leads the Quiet Ambassador program in schools. “It's critically important to have extroverts as part of the conversation,” she said. She recalled a discussion three weeks earlier with a group of students, introducing them to the basics of temperament, the characteristics that mark introverts or extroverts. “And the space just opens up,” she continued. “A sense of trust and safety emerges, and suddenly they realize, ‘Oh, that's

Quiet, Please

Susan Cain foments the
“Quiet Revolution.”

by
Lydialyle Gibson



who I am; I make decisions more quickly,' or, 'I multitask more easily.' Or: *That's why I'm quiet.* And particularly for the quiet ones, that 'Aha' moment of, 'I'm not less than the kid next to me who's raising his hand all the time.'"

"All the time," Scibetta echoed, nodding.

"All the time," Kasevich said again. Now she was rolling. "And there's a shift. There's a shift in kindness and respect," she added, "that's based on the diversity of the people in the room, talking to each other. And you just get more humane interaction. I love that phrase, 'the culture of kindness.' When you create a space for the quieter ones to speak, you sometimes get incredible ideas that otherwise would not be shared. That's creativity, that's productivity. That's trust within the team. That's power."

Socializing as an "extreme sport"

CAIN HAD SOME INKLING that her book might be big. Not at first. When she kicked around the idea for *Quiet* in the early 2000s, wading into obscure literature on the social and psychological history of introverts, "I thought I was working on this highly idiosyncratic project and I'd be lucky to get a book deal and sell a few copies," she says. But then her agent approached New York publishers, and "They all kind of went crazy." (Perhaps they could identify with its subject: "As you can imagine," Cain says now, "most editors are introverts.") There was an auction and a bidding war, which Random House eventually won. "It was like this wild dream," Cain recalls. And then it was time to write. It took seven years and a start-from-scratch second draft to get it right.



The book that emerged in January 2012 was, in fact, the highly idiosyncratic project that Cain had envisioned. Part scientific review, part manifesto, part self-help, and part travelogue, it followed her sojourns in places like Rick Warren's Saddleback megachurch in California, where she took in a worship service amid klieg lights and Jumbotrons; and a Tony Robbins seminar in Atlanta that promised to "UNLEASH THE POWER WITHIN," culminating one evening in a "firewalk" across a bed of coals. And to Harvard Business School (HBS), which an alumnus friend had told Cain was the "spiritual capital of extroversion." There, she observed, professors work hard to turn quiet students into talkers, and socializing is an "extreme sport." Sitting in Span- gler Center one day, Cain struck up a conversation with a couple of students, one of whom advised her, "Good luck finding an introvert around here."

The heart of the book, though, is in the dozens of scientific studies that Cain mines along the way. There's Wharton management professor Adam Grant '03, talking about his experimental research on the surprising effectiveness of introverted leaders. And psychologist Elaine Aron on "highly sensitive" people with strong emotions and small-talk aversions who sound a lot like introverts. And Cambridge psychology professor Brian Little (previously a Harvard lecturer) on the "free traits" that allow introverts, and extroverts, to step outside their temperament when the situation calls for it. Cain devotes a whole chapter to the work of Jerome Kagan, Starch professor of psychology emeritus, whose research followed subjects from infancy to adulthood, distinguishing what he called the "high-reactive" kids, who were more easily overwhelmed by the stimuli of their environment and more likely to grow up introverted. His work helped establish biology's role in shaping personality and temperament as a partly inborn trait.

Cain's working definition of introversion, informed by contemporary psychologists like

Kagan, still echoes the one Carl Jung first laid out in 1921: that it directs people inward, to the world of thoughts and feelings, while extroversion turns outward, to people and activities. Introverts need solitude to recharge their batteries; extroverts get their needed charge from socializing. Augmenting that formulation with research like Kagan's, Cain forms a picture that counters lingering prejudices. (Even in the research, though, she found a lurking extrovert ideal: "Going through the psychological database to find articles, I quickly discovered that if you put in the word 'introversion,' you'll get this many articles," she says, holding

her hands six inches apart. "And if you put in the word 'extroversion,' you'll get *this* many." Now her hands are two feet apart.)

Being introverted, she asserts, is a worthy, often glorious, attribute: introverts are empathic and reflective; they prefer listening to talking and think before they speak. They are less likely to die in car crashes, more likely to heed warning signals. They tend to be the ones to make peace and offer counsel. They have "mighty powers of concentration" and remain mostly immune to the lures of wealth and fame. They're artistic and creative, especially when they work alone. The list of esteemed introverts is long, she assures readers: Charles Darwin, Dr. Seuss, Rosa Parks, Albert Einstein, Steve Wozniak, Steven Spielberg, J.K. Rowling.

Making introversion cool

READERS REACTED to *Quiet* the same way New York publishers had—as if an untapped well had suddenly sprung open. The book became a bestseller. Cain appeared on the cover of *Time* magazine the week after *Quiet* was released, and a couple of weeks after that, she gave a TED talk that attracted half a million views in its first *day* online (now it is up to nearly 16 million). In that talk, she told a story about going to summer camp as an introverted nine-year-old with a suitcase full of books, happily expecting the same kind of companionship she was used to at home: lots of reading quietly together, with the "animal warmth" of others nearby, while "roaming around the adventureland inside your own mind." But camp wasn't like that—it was more like "a keg party without any alcohol"—and Cain never opened that suitcase. It wasn't the first time, she said, that "I got the message...that I should be trying to pass as more of an extrovert."

She also told the audience about her grandfather, a Brooklyn rabbi whose sermon every week for 62 years would "weave these intricate tapestries of ancient and humanist thought." Even though he had trouble making eye contact with his congregation, he was loved and looked up to: when he died, the police had to close the streets in his neighborhood to accommodate the throng of mourners. "Culturally we need a better balance," Cain said. "When psychologists look at the lives of the most creative people, what they find are people who are very good at exchanging ideas and advancing ideas, but who also have a serious streak of introversion in them."

After her talk, Cain went back to her hotel room and shut the door. Giving a 20-minute speech in front of lights and cameras and several hundred people had taken tremendous energy, and she would need almost a week to recharge. "I barely went outside for days," she says. But already, she was beginning to receive letters and emails that would become a flood of thousands, from readers desperate to tell Cain their stories or ask for her advice, or to thank her. Some wrote as if a burden had been lifted. In Cain's book, they saw themselves explained and exonerated. Many of them told Cain they wished they'd known all this years or decades sooner.

In the aftermath of *Quiet*, introversion came suddenly into vogue. The word began appearing in unlikely places, like *Fortune* and *Fast*

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Company and the *Harvard Business Review*, in stories explaining how to nurture and include introverted employees. At Harvard Law School (HLS) the annual winter-term problem-solving workshop, a requirement for all first-year students, has become a place where students are “explicitly invited,” says HLS dean Martha Minow—herself an introvert—to talk about temperament and personality and how it affects their work. “I think many of them feel reaffirmed,” Minow says, “that no, not everybody has to be a trial lawyer.” She adds: “At law schools, maybe more than business schools, many, many students identify as introverts. These are people who don’t mind spending hours and hours over books.” But even for business-school students something shifted. Social psychologist Amy Cuddy, an HBS associate professor (see “The Psyche on Automatic,” November-December 2010, page 48) and herself a TED champion, begins each new course by asking how many in the class are extroverts or introverts. In years past, she told Cain, almost no one claimed introversion. Now many raise their hands. “That’s the thing I can hardly believe,” Cain says. “To me that one fact”—introversion’s newfound cool—“is the biggest thing to happen.”

The introversion industry

IN THE YEARS SINCE, Cain has forged her own little industry. Quiet Revolution launched in 2014, and in 2015 the company set up offices at the Quiet House—first in a two-story Victorian house near Nyack, New York, later relocating to the brownstone in Harlem. Quiet Revolution’s website (www.quietrev.org) offers advice and quizzes and first-person essays in which readers tell their own stories. In 2016 Cain published *Quiet Power: The Secret Strengths of Introverts*, a follow-up book focusing specifically on children and teenagers. At least a couple of times a month, she is on the road, speaking at conferences and corporate gatherings and nonprofit retreats, before audiences of hundreds or thousands; during a particularly busy stretch last fall, her schedule took her from Houston to Silicon Valley to New Jersey to Los Angeles within a couple of weeks. Then there are the lunches, the phone calls, the near-constant stream of interview requests from reporters. Cain balances all that with very quiet off-time back home in the Hudson Valley, where she lives with her family: daily walks, “Zen tennis,” mornings-into-afternoons spent reading and writing, the predictable rhythm of school drop-offs and pick-ups to bookend the days.

Still, the speaking demands are a lot for an introvert to manage. Cain knows it’s ironic that writing about introversion has thrust her so squarely into the spotlight. But standing up in front of audiences gets easier over time, she’s found, and to recharge between events she might get out her racquet and hit a few balls, or retreat to her hotel room and order room service (buffalo wings, the spicier the better) and read a book.

When she can, Cain brings her family along: her (extroverted) husband, Kenneth Cain, J.D. ’93, and their seven- and nine-year-old boys. That helps, too. By the time her older son was six, the children

had been to 11 countries, tagging along on their mother’s speaking trips. “It’s a wonderful feeling, bouncing around the world together as a family,” she says. They go to parks, kids’ museums, miniature golf, whatever’s available. Sometimes they just hang out at the

hotel. “There’s something about being in a hotel room together in another country that makes life feel more heightened.” Jumping on the beds, ordering buffalo wings, splashing around in the pool. There was a particularly fun hotel in Arizona recently—“And now my son is convinced that he wants to grow up in Arizona. Like, his favorite football team is now the Arizona Cardinals.”

But the boys know what it means when Mom brings out her stockings in the morning: work. “And the really hard work,” Cain once overheard her older son informing his brother, “is called ‘giving a speech.’”

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over books.”

An awakening in Asia

IN ANOTHER LIFE, one that now seems far away, Cain was an attorney on Wall Street. She went to law school for the reasons people sometimes do: it was a solid path, and her father wanted a self-sufficient life for her—plus she found law interesting. In truth, she says, “I was the least likely law student ever.” Law school made her so anxious that she once threw up on the way to class. Friends used to ask her why she was there, when her talents should perhaps have led her elsewhere. “And I was like, ‘No, no, it’s great.’ Because for a while I really liked it, in the way that you like a foreign country. It’s fun, it’s exciting, and, oh look, I can speak the language.” Afterward she spent seven years in the corporate law firm Cleary Gottlieb Steen & Hamilton.

That’s where Cain first met Scibetta, Quiet Revolution’s CEO. Both were young associates, and although they had nothing in common temperamentally, they shared a fascination with personality. After a few hours around a table watching masters of the universe argue and negotiate, Cain and Scibetta would spend more hours picking apart their behavior. There were the yellers and screamers, and the bangers-on-the-table—and the steely quiet ones who stayed calm and waited. Those caught Cain’s eye.

Scibetta remembers, too: “After the meetings, Susan and I were always supposed to go back to our offices and draft these complicated documents in support of something-or-other. And instead, we would go back to our offices and talk about people. And that was the foundation of our relationship. That was how we knew each other. That was what we did—and we had to love it, because on top of that, we were working like 19 hours a day.”

A few years in, Cain started to suspect she wasn’t in the right field after all, and eventually she left to start her own consulting business, helping clients get better at negotiation. Scibetta moved to Japan. It turned out to be a deeply shocking experience. After college, he’d worked as a scallop fisherman, waiter, cook, bellhop, and carpenter. He had a job for a while at Yellowstone National Park and, separately, spent six months living in a tent in the Montana woods. But Japan was something else altogether. Scibetta was based in Tokyo, working for JPMorgan Asset Management. Instead of an extrovert ideal, he found a culture centered around its opposite, a place where it was

considered rude—actually, worse than rude—to interrupt others while they were speaking, and frowned on to be the one who talks more than anyone else. He would give a town-hall presentation and encounter total silence when he called for questions. “You move to Japan, and you immediately realize the randomness of Western culture,” Scibetta says. “I was raised in New Jersey where, you know, there weren’t that many rules. And then I became a Wall Street lawyer, where the norm was to shout down your opponent. Then in Asia, I discovered that that culture was something America had formed around. It wasn’t inherent to anything.”

Scibetta spent six years in Tokyo and then, after stints in London and New York, another eight years in Hong Kong (where he adopted a puppy off the streets and named her Minnie; she’s now the Quiet Dog). Then Cain called him. Her book sales were going wild. All these letters were coming in from readers. She was thinking of starting a company. Would he come help her build it?

The talk-to-four people rule

FROM THE BEGINNING, businesses were interested in Cain’s work. The CEO of Steelcase, the office-furniture manufacturer, happened to be in the audience the day she gave her speech at TED; he approached her afterward to talk about how to build more quiet workspaces. In 2016, Cain’s company, working with the California-based Anita Borg Institute, an organization for women in the tech industry, formed the Quiet Tech Network. Building on the Quiet Ambassador idea, it brings together many tech companies to counter the industry’s own extrovert ideal, which Scibetta says is partly to blame for the scarcity of women in the field. After all, he explains, “ideal” extroverted traits are more often ascribed to men than to women.

LinkedIn, the online professional-networking service, was another early adopter of Cain’s philosophy. Pat Wadors, a senior vice president and head of human resources at LinkedIn, remembers watching Cain’s TED talk and thinking, “That’s me.” Years earlier, when she first became a boss, she’d had to explain to her team why she didn’t stop by the kitchen to chat, why she ate lunch alone, that a closed office door didn’t mean they were unwelcome or disliked. She posted an essay about that experience on LinkedIn’s blog, which led to an introduction to Cain, and the two became pen pals. Wadors says, “She was always dropping these golden nuggets in my lap.”

Wadors began leading roundtable discussions about introverts in the workplace whenever she traveled from her base in Seattle to LinkedIn’s other sites around the world, mostly “for introverts to talk about their experiences,” she says. She would share Cain’s nuggets of advice: if you need to say something in a meeting and you’re nervous, say it early so you can be relaxed and attentive afterward; if an idea occurs to you four times in a meeting, force yourself to share it, even if you’re reticent; at cocktail parties, talk to four people before you go home. “And don’t just shake hands—have a conversation,” Wadors says. She limited the discussion groups to 20 people, but

often three or four times that many wanted to take part, including extroverts who would sometimes sneak in. Waiting lists sprang up. Wadors asked Cain and Scibetta what to do. “I said, ‘I can’t scale it. I can do 20, but there are 85 people who want to get in.’” That was the genesis of the Quiet Ambassador program.

The schools version of the program, called the Quiet Schools Network, builds on a similar principle. Kasevich, its director, was a teacher and department chair in colleges and independent schools for 25 years before joining Quiet Revolution in 2015. She’s an introvert, too, and began each school year with a story to the class about how she found it hard as a kid, and even as a college student, to speak up. “And I made it very clear to them that my class participation grade would not be dependent on *quantity* of speech,” she says. “There are various forms of engagement. So if you can signal me, through various forms of body language, that you’re with me, that’s great. That’s going to count.” She met with students one on one to give them a gentle push and a “long runway” for speaking up. “It opened up a space for the quiet students to feel valued.”

This year, there are 50 ambassadors, most of them teachers, in 19 schools around the country. They’re working with teachers on how to rethink student leadership and participation, how to bring quiet time into the classroom, and how to help introverted kids through the already-overwhelming college-application process; they also educate parents about how to deal with (and avoid mishandling) their introverted children. One elementary school with a particularly loud cafeteria instituted a weekly “quiet lunch,” in a different spot, where students could eat while they read or played games or did puzzles. “We were bouncing around ideas like having poster board available at the table, encouraging more reflective writing or drawing,” Kasevich says.

It’s important to make these adjustments, she adds. “It’s so easy to see three or four kids talking. They’re raising their hands first, and the teacher is calling on them. That’s the root of the problem.

The extroverts are used to being called on—for years teachers have called on them, and they expect it.

But research shows that as soon as a hand goes up, the other brains in the room shut down.”

As the meeting at the Quiet House wound to a close—Cain heading out to pick her kids up from school and the others planning to share dinner downstairs in the kitchen—Scibetta began wrapping things up, consolidating his notes on the whiteboard, summarizing the day’s highlights and revelations.

And then came this tiny turn of phrase, easily missable, but clearly intentional: “In a minute,” he said, “I will say, ‘Does anyone have any other thoughts or questions or ideas?’—I will say that in a minute.” Then he continued speaking, but all around

the table his introverted colleagues looked slightly changed. They were now readying themselves to say something, straightening in their chairs, arranging words in their minds. Three or four minutes later, Scibetta stopped. “So,” he asked, “does anyone have any other thoughts?” A hand went up. ▢

LydiaLyle Gibson is a staff writer and editor at this magazine.

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An “Enchanted Palace”

A humanistic “masterclass” for Houghton Library’s seventy-fifth anniversary

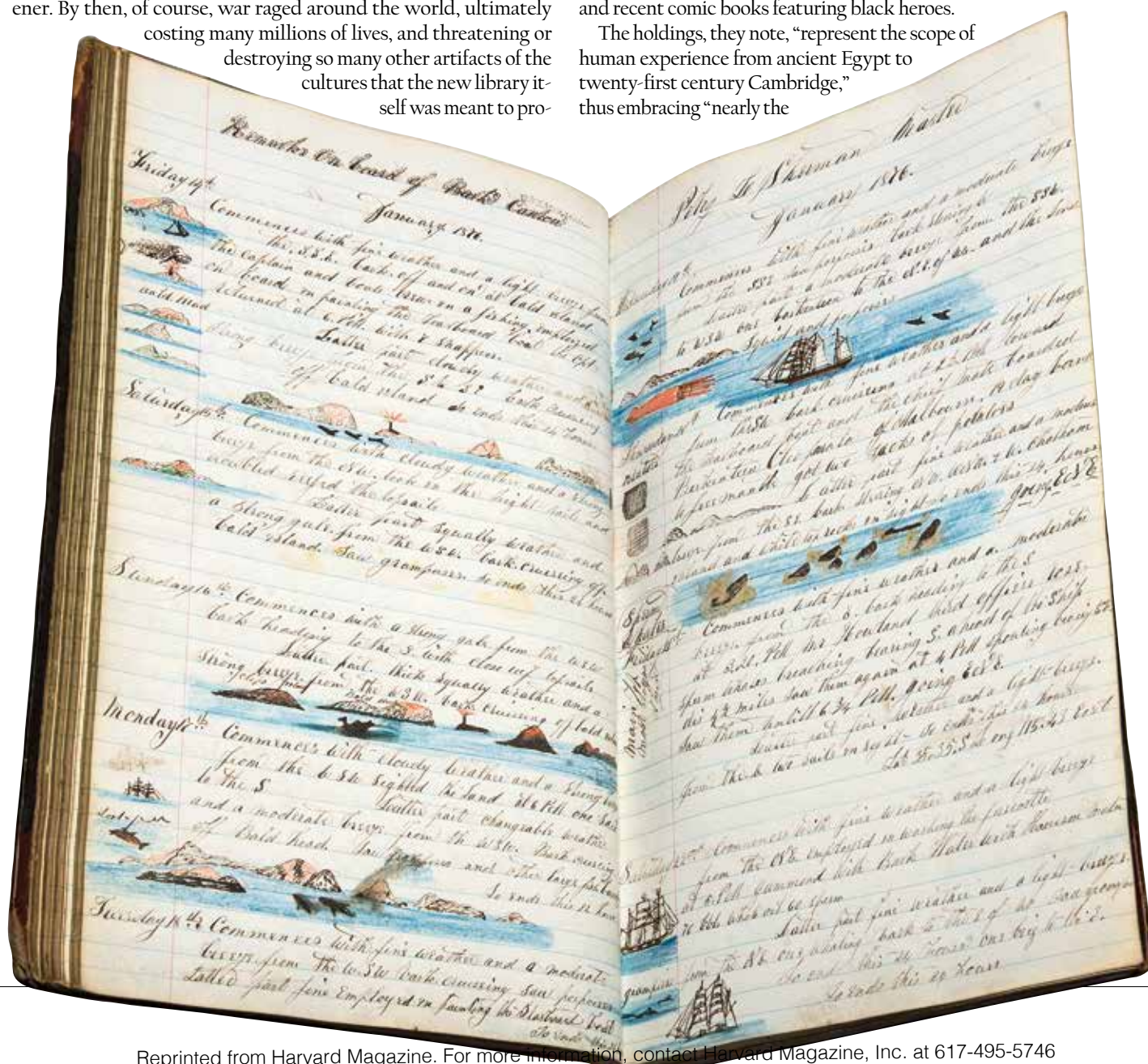
HOUGHTON LIBRARY was conceived in 1924, in a letter by Archibald Cary Coolidge, director of the Harvard University Library, who imagined an “enchanted palace on the raised ground close to Widener.” Consistent with the times, and with his very name, he envisioned the repository in elite terms: “a beautiful building...in which we store all our works of great rarity and value... [and] works dear to the book-lover, a place where we could keep what we valued most and show it to those who appreciate it...”

The vision became reality with the support of Arthur A. Houghton Jr., assuming the now-familiar form upon its dedication on February 28, 1942—following the infusion of 125,000 volumes from Widener. By then, of course, war raged around the world, ultimately costing many millions of lives, and threatening or destroying so many other artifacts of the cultures that the new library itself was meant to protect:

treasures that have been collected through nearly four centuries now, and safely housed in Houghton for 75 years.

Coolidge’s correspondence, and conception of the library, appear in the introduction to *Houghton Library at 75* by Heather G. Cole, assistant curator of modern books and manuscripts, and John H. Overholt, curator of the Hyde collection of Dr. Samuel Johnson and of early modern books and manuscripts. They cheerfully address the impossible task of portraying the collections through several dozen samples—from familiar, if stunningly gorgeous, illuminated manuscripts through the First Folio of Shakespeare to (perhaps surprisingly modern) ephemera: a tape recording of Sylvia Plath, from the Woodberry Poetry Room, and recent comic books featuring black heroes.

The holdings, they note, “represent the scope of human experience from ancient Egypt to twenty-first century Cambridge,” thus embracing “nearly the



whole history of the written word, from papyrus to the laptop.” But the weight of past collecting dictates that the library’s strengths remain “primarily in North American and European history, literature, and culture,” albeit ranging “from printed books and handwritten manuscripts to maps, drawings and paintings, prints, posters, photographs, film and audio recordings, and digital media, as well as costumes, theater props,” and other objects, maintained in eight curatorial departments. Augmenting the collection today presents new challenges, reflecting the evolution of interdisciplinary research—not least toward “uncovering suppressed or underrepresented voices” that extend “beyond the privileged, white, male voices that traditionally dominated Houghton’s shelves.”

The other imperative is *use*: supporting scholars, making materials available for teaching. “Houghton Library was born into a world still ruled largely by paper—not just in its collections, but in the systems by which those collections were managed,” Cole and Overholt note. “Researchers...filled out paper slips to request the materials they wanted to see. Those who could not visit in person sent letters of inquiry, and reference librarians responded with typewritten replies, with a carbon copy kept for the library files.” The restrictive whiff of

Coolidge’s “those who appreciate it” is not entirely dissipated (the hush remains palpable), but it is certainly broadened by a powerful urge to extend access—where practical, digitally.

The book, a thing of beauty in itself (see page 41), is complemented by a series of exhibitions and events. On the following pages appear samples from the first major exhibition, “Hist 75H: A Masterclass on Houghton Library” (on display through April 22). That title conveys the librarians’ external focus, on teaching with and use of the collections. It also suggests the show’s contents—diverse items chosen by 46 faculty members based on their strong connection with the selections: a discovery from their undergraduate experience, a pillar of their research, or an exemplary part of their current courses. The items are accompanied by the exhibition labels crafted by each faculty member, and audio excerpts (from curators’ conversations with them) explaining something about the object on display—all coordinated by reference librarian James M. Capobianco. A tour, in other words, of the collections, their use, and contemporary humanistic scholarship. Visitors are welcome to enroll.

Subsequent exhibitions will feature works chosen by the curatorial staff, and an important modern acquisition, plus displays on Houghton’s history, collecting, Henry David Thoreau in his bicentennial year, and more. Complete details are available, digitally of course, at Houghton75.org.

~Jennifer Carling and John S. Rosenberg

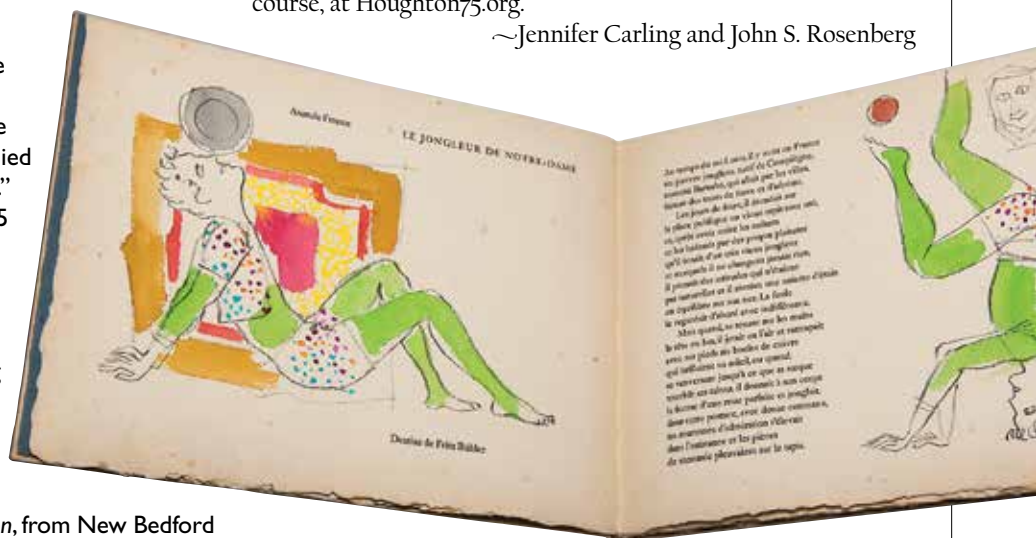
Sighting Whales, Then and Now

Navigation has been taught at Harvard since 1718, initially as a way to illustrate the mathematics of spherical geometry. Since then, the teaching of navigation has become more applied and the pedagogies used far more “hands-on.” Astronomy 2 has expanded during the last 25 years to utilize the University’s great collections of instruments, maps, and rare books, like this log from the *Bark Canton*. These two pages follow the weather and winds experienced while still near the coast. Once leaving sight of land, entries will become less colorful, but still full of meaning: hourly records of course, speed, winds, and calculation of latitude and longitude.

Logbook of the *Canton*, from New Bedford to Australia, 1874-1878

Not all [students] were impressed by the theoretical approach [to teaching navigation], as Henry David Thoreau commented in 1854, “To my astonishment I was informed on leaving college that I had studied navigation! — why, if I had taken one turn down the harbor I should have known more about it.”...Beginning with astronomer Robert Wheeler Willson’s Celestial Navigation course in 1896, students learned surveying to map out Cambridge Common and the use of chronometer and sextant to find latitude and longitude, while not skimping on theory....These two pages...dutifully illustrate the profiles of known islands and dangerous rocks, information that may be lifesaving in the future, all while eyeing the quarry of sperm whales.... Students reproduce all of these [traditional measurements] during our own “turn down the harbor,” a cruise 40 miles east to Stellwagen Bank, to be entertained by the now safely cavorting humpback whales.

— **Philip M. Sadler**, Wright senior lecturer on celestial navigation and astronomy; director of astronomy education, Harvard College Observatory



A Medieval Tale, Remixed

Adaptations of medieval material in modern culture can be fascinating. “Le jongleur de Notre-Dame” is earliest attested in a beautiful thirteenth-century French poem. First edited in 1873, it made a big splash after being adapted in 1890 by a future Nobel prizewinner. In turn, Anatole France’s short story inspired a 1902 opera. Tony Curtis starred in a 1960 made-for-television movie based on the story, and the poet W.H. Auden wrote a ballad. Fritz Bühler produced 50 hand-painted copies of France’s story as Christmas gifts in 1955. A Swiss graphic artist, he helped to design and promote the Helvetica typeface.

“Le jongleur de Notre-Dame.” Adapted by Anatole France, designs by Fritz Bühler. Bâle: Editions St. Alban, 1955

— **Jan Ziolkowski**, Porter professor of medieval Latin and director of the Dumbarton Oaks Research Library and Collection



The First Draft of the Declaration of Independence

One of the main arguments of my book, *Our Declaration*, is that John Adams deserves just as much credit as Thomas Jefferson for the argument and rhetoric of the Declaration of Independence. Adams, for instance, more than anyone else focused his contemporaries' attention on the concept of happiness, and key phrases, like "course of human events," reflect his rhetorical style. This year at the Houghton, thanks to John Overholt, I found, lo and behold, the smoking gun...a veritable first draft of the Declaration.

John Adams, *A Proclamation: The Frailty of Human Nature*, Watertown, Massachusetts, printed by Benjamin Edes, 1776

My main research focus...is on political equality, and the American Declaration of Independence is a particularly profound and influential statement about political equality.

I've worked on the Declaration for some time now, and one of the most important stories...is the story of John Adams's role in driving the politics that led to the Declaration and in generating the arguments for the Declaration. And in fact I've been going around the country making the argument that the only reason we think Thomas Jefferson is the author of the Declaration of Independence is because he put that on his tombstone. If he hadn't...we might know the truth, which is that multiple people participated in producing the text of the Declaration and John Adams was one of the most important....

So I cannot tell you how excited I was when I came over to the Houghton...and discovered Adams's Proclamation by the General Court from January 19, 1776....So at last I had my final piece of proof....[H]ere is a text that has...exactly the same structure as the Declaration of Independence six months before the Declaration. Not only does it have exactly the same structure, but it has the same language. It is the first version of the Declaration of Independence.

— Danielle Allen, Conant University Professor

An Easter Prayer Book

This Northern German Easter prayer book...forms part of a larger collection of the Cistercian nuns of Medingen, who were extremely skilled in the production of highly valuable liturgical and devotional books. This particular book contains Latin prayers and Middle Low German songs alike. The interspersing of vernacular language has, however, nothing to do with the purely visual element of the changing ink color between red, blue, green, and black.

Fifteenth-century manuscript

[T]he pages that are open show a whole-page illustration, a so-called miniature...and we see in the center a dominating figure...representing the resurrected Christ. He's got his hand out as [if] to bless, he's wearing a royal gown that just covers his body slightly to reveal four wounds. One foot is still in the tomb, and that's quite interesting because sometimes you would find him with five wounds. [S]ince we cannot see one foot we don't really know. Now the wounds are also illuminated with gold, and you can see there's a lot of gold applied on this page....[T]he illuminations fulfill different functions. For the wounds, this is of course to also show that this is the resurrected Christ....

The other reason is that it draws attention to the passion of Christ as a central topic for the contemplative practices at the time. The colors...applied in this miniature will also reappear throughout the manuscript....

The text facing the miniature speaks about the glorious Pascal day and the joyful music that is sung on that day and you see then the angels with two medieval instruments, and that's another way to link the celestial realm to the actual monastic practice of celebrating that day and unifying the humans' song with the angels' song.

— Racha Kirakosian, assistant professor of Germanic languages and literatures and of the study of religion



An African American in Blackface

Billed as “America’s Greatest Comedian,” the African American performer Bert Williams (1874-1922) emerged out of minstrelsy to achieve extraordinary success on stage. His career was defined by Jim Crow segregation. Yet Williams disrupted racial barriers to headline otherwise all-white revues, starting with the famous Ziegfield Follies. He consistently put on blackface, a tradition of darkening the skin with burnt cork that was central to minstrelsy.

In this advertisement for the *Broadway Brevities*, a revue that traveled from New York City to Boston’s Shubert Theatre, Williams appears in blackface with his characteristic top hat, tails, and white gloves. The series of photos poke fun at Prohibition, which had gone into effect in January 1920. Advertisement, 1920

My work is focused on twentieth- and now twenty-first-century American music and its broad-ranging cultural contexts, and increasingly I have been working on race from the perspective of racial

integration and desegregation.

This flyer...is just an amazing testimony to the importance of ephemera, and it tells us so much about its era. The performer featured...is...hailed by many as one of the greatest American comedians of all time. Although this flyer is from 1920, he’s a figure who hails to two decades earlier, an era of a cluster of composers, performers, music publishers, producers, all African American, who for a period of 12 to 15 years were successfully producing shows on Broadway.

Now the shows...were largely grounded in what at the time were called “coon songs,” songs that traced a legacy back to blackface minstrelsy...a way to gain access into the world of entertainment, to get a job, to have a career.... In this flyer he’s wearing a tuxedo and top hat, which is so interesting because on the one hand that gestures to the “Zip Coon” stereotype of blackface minstrelsy, but it also feels like he’s pressing...beyond it. His tux isn’t tattered. It has some kind of elegance to it. It’s all really poignant when you just pause over the racial issues that this man was coping with.

— Carol Oja, Mason professor of music



Early Printed Polyphony

This rare partbook probably survived thanks to the charming dice featured in Josquin’s *Missa di dadi*, which show singers in which proportion to render the tenor part (also realized just below). The melody comes from a love song with the text “Shall I never have better than I have?”—here transformed into an allusion to the gamblers’ attempts to beat each others’ throws.

Note the fine presswork, with the staves printed first and the notes printed in a second impression, a method developed by Ottaviano Petrucci, the first printer of polyphonic music books.

Josquin des Prez Tenor partbook, 1514

[This] book...is one of the first examples of a new printing technology for polyphony. Ottaviano Petrucci, who solved this particular problem of putting typographical notes on the page along with their linear staff lines, did so by running each sheet through the press twice... And then also, if you look at the big “K” at the beginning of “Kyrie,” with woodblocks for those large initial letters.

This book is one of four partbooks, each with its own vocal line to the Mass.... The tenor had a particular job in this piece, which

is to sing one piece of plainchant over and over again, but each time in a different mensuration and prolation, meaning that the notes were different lengths. Now the dice on this page show the tenor singer what mensuration and prolation to use [and] here Petrucci has included the resolution underneath each line. And you can see each time it’s different.

[T]he dice...also allude to the melody of this song, which...here is an allusion to the gaming of dice players, and also has a sacred allusion as well.

— Kate van Orden, Robinson professor of music





Ben Jonson, Hard on Books

It is easy to imagine the poet and playwright Ben Jonson carrying his handy copy of Lucretius's philosophical poem, *De rerum natura*, around with him and discussing its subversive, epicurean arguments with his cronies. On one of these occasions, they evidently played a game writing rhymed Latin couplets against the Puritans. Jonson wrote these down on the blank pages at the end of the book. At this or another time the poet—who was a famously heavy tippler—or one of his friends evidently spilled ink, corrosive due to its high acid content, on the opening pages.

Ben Jonson's copy of Lucretius's De rerum natura, 1620

[T]his copy of *De rerum natura* was printed in 1620 in Amsterdam. There were many editions of Lucretius at this point, many of which had elaborate commentaries. This doesn't have a commentary. It's the text itself and it's remarkable for a number of reasons, but perhaps most of all because it was owned by Shakespeare's friend and rival, the playwright and poet Ben Jonson.

Jonson seems to have been responsible for the damage to this book, though we can't be sure. Someone, in any case, has spilled something that has damaged the pages. Ben Jonson...might have been in the tavern with his friends and spilled it and tried to brush it off, but it's damaged the pages. At the very back of this book, there's evidence of the peculiar occasion in which at least it once was read and exhibited because Jonson and his friends, perhaps, have written a poem, not a very good poem but in rhymed doggerel couplets against Puritans, in the back of the book in Jonson's hand.

This...was one of the most interesting and resonant books of classical antiquity because it challenged so many of the basic views of Christians in the Renaissance and indeed up 'til the nineteenth century. In...1620, still relatively few people had read this poem. You had to have lots of Latin, and you had to have lots of interest in a very disturbing account of the universe.

— Stephen Greenblatt, Cogan University Professor

The Spread of Science

This printed edition of the Latinized Optics [*Opticae Thesaurus*] of Ibn al-Haytham, the eleventh-century scientific author in Arabic known in Europe as Alhazen and Alhacen after his first name Al-Hasan, has been prominent in my teaching and research.... This text represents an important chapter in the history of optics and perspective as well as experimental methods and conceptual breakthroughs. Translated from Arabic into Latin, then Italian, with a much larger impact in Europe than in Islamic lands, it also represents an outstanding case in the transmission and transformation of early scientific works.

Alhazen (965-1039), Opticae Thesaurus, 1572

I am a historian of science....

Although this book is on optics and from Europe of the early modern period, it represents subjects, figures, mediums, languages, places, and times much beyond what is embodied between the covers of its single volume. The main subject contained in it is much broader than the specialized subject...that optics became through time. Pre-modern optics focused on vision, and through it, related subjects from early perception and natural philosophy to pre-perspective geometry and epistemology....

Besides subjects and figures, the work is of interest for representing mediums beyond print, and languages beyond Latin. Its seven books were originally composed in Arabic, not Latin, and in manuscript form, not print.... The work's seven books were transmitted internally mainly through a thirteenth-century commentary by an author named Kamal al-Din Farisi, but externally through more than one medieval Latin translation from the twelfth and thirteenth centuries, an Italian version from the fourteenth century, and this printed Latin edition from the sixteenth century, making [its] impact...especially far and wide.

— Elaheh Kheirandish, postdoctoral associate of the department of history of art and architecture



Bridging Worlds in a "Beauty Salon"

Anne Eisner, a New York painter and my aunt, lived at the edge of the Ituri rain forest from 1946-58 (now Africa's Democratic Republic of the Congo). Working on her archive for publication of *Images of Congo*, I realized how much her passion for relating culture and artistic creation had influenced me. Anne bridged the divide between co-existing societies—inside and outside the forest, Bantu and Pygmy—and, deeply engaged in everyday life, celebrated the importance of the women. *Beauty Salon* figures the care each took of others, and echoes Pygmy bark cloth designs in color-saturated newsprint.

Anne Eisner, *Beauty Salon*, 1956

Anne Eisner lived for nine years in the Belgian Congo...an experience that took her across both spatial and cultural boundaries. The people of the Ituri rain forest became of compelling interest to researchers and tourists, but before that happened Anne lived amongst at least two groups of Bantu and Pygmies who inhabited the area. What you are looking at is a watercolor that is done from memory in 1955 or '56.

[H]ere are two Bantu women in what Eisner called their beauty salon. The woman on the left is braiding the hair of the woman who is seated on the right. What I would like you to notice about these two women is not only their connection, that one is taking care of the other, that they are in a society, therefore, of women who are very interconnected, but also the line that separates the bottom part of the watercolor. The line that goes from lower left to slightly higher right.

In many of her depictions...from that period, Eisner draws a line. And the line is generally a line between the inside and the outside. So in this case, you can see that both women straddle the line, and that was very much what she ascribed to these women—that they were able to bridge the world of the colonialists and the world of their own tribes.

— Christie McDonald, Smith professor of French language and literature and of comparative literature, and faculty dean of Mather House



To read more about the work of these scholars, and their subjects, see "The Egalitarian," May-June 2016 (Danielle Allen); "Congo Report," September-October 2005 (Christie McDonald); "Swerves," July-August 2011 (on Stephen Greenblatt's book about De rerum natura and its wide influence); and "Vita: Ibn al-Haytham," September-October 2003.



Visit harvardmag.com for excerpts from the anniversary book, *Houghton Library at 75*.



COURTESY OF HOUGHTON LIBRARY/HARVARD COLLEGE LIBRARY IMAGING SERVICES

Henry Knowles Beecher

Brief life of a late-blooming ethicist: 1904-1976

by JACK EL-HAI

HENRY K. BEECHER, M.D. '32, for decades Dorr professor of research and teaching in anaesthetics and anaesthesia at Harvard Medical School (HMS), drew worldwide attention a half-century ago for an article published in *The New England Journal of Medicine*. "Ethics and Clinical Research" described 22 examples of human experimentation by prominent institutions and agencies in which Beecher determined that investigators "risked the health or the life of their subjects" without obtaining informed consent or any consent at all. The research included withholding treatment from sufferers of rheumatic and typhoid fever, infecting mentally disabled children with hepatitis, and injecting live cancer cells into unknowing subjects. Never before had a medical insider so loudly called out the unethical practices of his peers, and the article inspired headlines in the popular press.

Beecher spent the remaining 10 years of his life advocating high ethical standards in the use of human subjects in medical and scientific research. Yet he never publicly acknowledged his own involvement in CIA-sponsored human-subject research during the 1950s: experimentation that exposed unknowing subjects to dangerous drugs. Historians now debate the significance of his clandestine research; some have wondered whether this pioneer of modern medical ethics was a hypocrite. Or did Beecher belatedly recognize his personal errors, and determine to crusade against the unethical practices that had ensnared him?

A Kansan who earned bachelor's and master's degrees from the University of Kansas, Beecher had already reshaped his identity when he enrolled at HMS: changing his name from Harry Unangst to Henry Knowles Beecher was perhaps an attempt to link himself to a notable Massachusetts family. (He wasn't related.) In 1936 he won appointments as anaesthetist-in-chief at Massachusetts General Hospital and joined Harvard's faculty, proving so influential that in 1941 he was named to the first endowed chair in his field.

During World War II, he investigated the placebo effect in wounded soldiers and became an early advocate of using placebos in double-blind and randomized studies of drug efficacy. After the war, he studied reports of the medical atrocities committed at Nazi concentration camps and followed closely the Nuremberg prosecutions of medical personnel. Those proceedings led to the 1947 Nuremberg Code, meant to set ethical standards to prevent future exploitation of experimental subjects.

But Beecher was intrigued by what he'd read about aspects of Nazi medical tests. In 1951, he began collaborating with the American intelligence agencies to identify a "truth serum" to make uncooperative Cold War-era prisoners spill their knowledge in interrogation and under torture. His secret research, funded by the U.S.

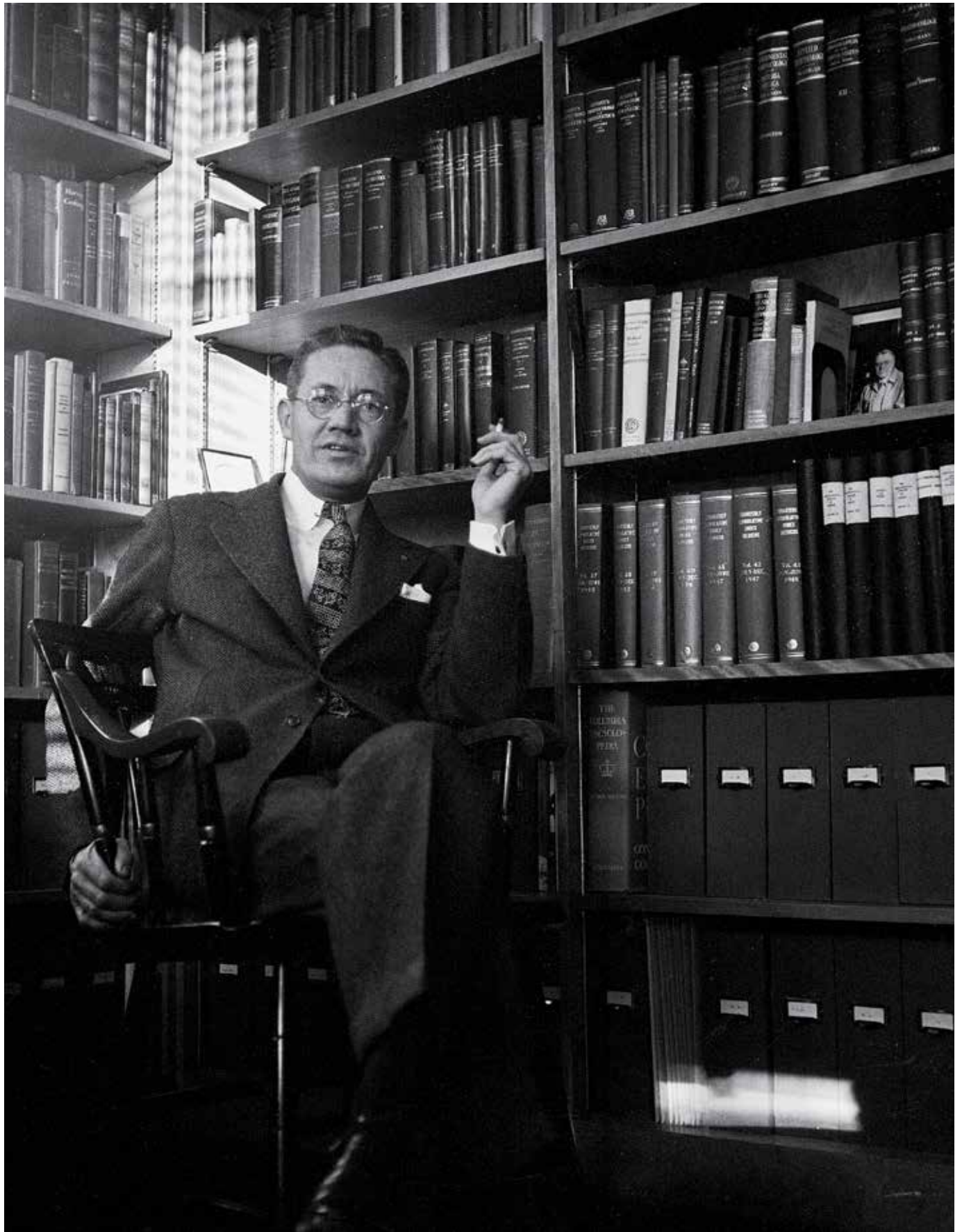
Army Surgeon General's office, focused on the hallucinogens mescaline and LSD (at the time a legal drug). During the 1950s, medical historian Alfred W. McCoy has found, Beecher "sacrificed his subjects to the cause of national security." At times consulting with former Nazi doctors, and possessing "top secret" security clearance, he conducted research on unwitting individuals and recommended LSD in particular as a pharmaceutical weapon that could overcome prisoners' resistance or psychologically disable enemy soldiers, causing paranoid and panicked reaction: a "psychosis in miniature," he reported. (The identities and sources of his human guinea pigs in Europe and Massachusetts are not known.) In 1955 and 1956, he coauthored a pair of papers on LSD research in medical journals.

But his conscience struggled. When American scientist Frank Olson and a Swiss psychiatrist killed themselves after ingesting LSD, Beecher wrote a memo describing such deaths as "a warning to us to avoid engaging subjects" who were susceptible to depression. His concerns went even deeper. The chief U.S. army surgeon in Europe had warned him that medical research for the purpose of mind control violated both the Geneva Convention and the Nuremberg Code. In 1952, Beecher confessed in a letter to a U.S. Navy medical colleague, "I have been much concerned about some moral problems growing out of human experimentation," adding that he'd discussed them with the dean of Harvard Divinity School.

By the late 1950s, Beecher had completely reshaped his views on experimental research. He published his first article on research ethics in 1959, continued expressing dismay at the weak safeguards for experimental subjects, and established himself as an authority with his 1966 *New England Journal* article. When he died, seven years after retiring from HMS, that journal eulogized him as "one of the pioneers in the development of programs designed to protect the rights of patients and of volunteers engaged in various human studies." Only in a 1965 lecture had Beecher ever hinted publicly that he felt "obliged to say that, in years gone by, work in my laboratory could have been criticized" for its ethical flaws.

His advocacy of research ethics during his last 17 years was unquestionably powerful and important. How to regard his turnaround demands moral judgments: whether his about-face "demonstrated stunning hypocrisy," as the Alliance for Human Research Protection has declared, or represents the commendable enlightenment of a flawed and complicated mortal. A half-century after his most influential publication, Beecher still makes us think. ▢

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Colossal Blossom

Pursuing the peculiar genetics of a parasitic plant

by Jonathan Shaw



THE LARGEST FLOWER in the world, *Rafflesia arnoldii*, is more than three feet across. With no roots, shoots, stems, or leaves, this parasitic plant is stealthy, visually undetectable until it prepares to bloom. Buds erupt without warning from an infected host vine and swell slowly over months to the size of cabbages. In full bloom, each bud's central floral chamber—orb-shaped, with a circular opening at the top—resembles a planetarium or astronomical observatory with a mottled roof partially opened to the sky. Within lies a disk covered with spiked structures. Botanists have named the spikes “processes,” but have no clear idea what they do. In the largest flowers, the chamber is almost big enough for an infant to crawl inside and fall asleep. But *R. arnoldii*'s spectacular flower is the least of its appeal to scientists, because the genus to which it belongs also holds a gigantic genetic mystery.

All members of the genus *Rafflesia* produce huge flowers. (Even the smallest are roughly the size of dinner plates.) In the Philippines, on the Malay Peninsula, and on the islands of Java, Sumatra, and Borneo, where these plants grow from vines trailing across the rainforest floor, *Rafflesia* are celebrated. The distinctive five-petaled flowers appear on stamps, currency, and even bags of rice in Malaysia. *Rafflesia* is one of three national flowers in Indonesia. The buds and blooms are considered a delicacy in Thailand, while in other parts of southeast Asia, the plant is thought to have medicinal powers. Drinking a *Rafflesia* tea after childbirth, indigenous peoples of northern Borneo believe, will flush the placenta and restore the figure.

As fascinating as these mysterious blooms are to people, the flower is designed to attract a much smaller visitor. Carrion flies swarm to *Rafflesia*, attracted by the scent of rotting meat—reportedly strongest around noon on the third or fourth day of the bloom, which lasts little more than a week. The pungent bouquet, which varies in intensity from one species to another, has led to the names “corpse lily” and “carrion flower” in English. In fact, Westerners frequently confuse this rarity with another “corpse flower,” *Titanarum*, a large, stinking inflorescence (actually thousands of tiny flowers), often grown in greenhouses, that resembles a jack-in-the-pulpit and is related to calla lilies. *Rafflesia*, on the other hand, have never been successfully cultivated.

The carrion flies are the plants' pollinators. “The flower is like a bar for these insects,” says professor of organismic and evolutionary biology Charles Davis, who first encountered the genus in a small village in northern Borneo while studying the region's spectacular plant diversity. Where the landscape rises from coastal low-land tropics to Mount Kinabalu,



FRANS LANTING

The flowers of *Rafflesia arnoldii* are the largest in the world (left and above). In Malaysia, the blooms are even celebrated on stamps (right).



which peaks above 13,000 feet, “across that gradient, in a tiny area, live more than 10,000 species” says the director of the Harvard University Herbaria and curator of vascular plants. And yet even among the gems—such as pitcher plants and orchids that grow nowhere else—*Rafflesia* stands out. “It’s hard for me to describe what it is like to see one of these flowers for the first time,” he continues, “because they are so out of proportion from what we normally think of as a flower. And they have a coloration—reddish to brownish, mottled with white—that is off most people’s radar for what a flower should look like.” That checker-board patterning, though, “is ideal for attracting the flies.” As is the fragrance, which he has captured using vacuum pumps in the field and sent to a colleague at Cornell for analysis using mass spectrometry. The chemical profiles are a remarkable match to rotting meat.

THE MIASMA emanating from the blooms places them in a category with other large-flowered carrion mimics that are pollinated by small-bodied insects, like the *Stapelias* of South Africa and skunk cabbage of the wetlands around New England. Although plants that imitate the colors and fragrances of dung or urine can also be



JEREMY HOLDEN

large, those that masquerade as carrion are bigger. “There seems to be an association,” says Davis, between gigantism and plants that reek of rotten flesh.

Rafflesia flowers also generate heat. This thermogenesis, as it is called, is rare in plants, but shared with a few other species that evolved in the tropics, such as skunk cabbages, which can raise their temperature nearly 30 degrees. Once thought to be an adaptation for enabling early-bloomers to melt snow in temperate climates, the ability to generate heat probably first evolved to help plants like *Rafflesia* and skunk cabbage volatilize the foul odors they produce to attract pollinators. The heat—which in skunk cabbages requires a metabolic rate akin to that seen in animals like mice or birds—also creates a cozy microenvironment that allows visiting pollinators to operate at a lower metabolic cost. In *Rafflesia*, the combination of

mottled red and white coloring and olfactory cues, Davis explains, draws gravid female carrion flies “to these darkened orifices where the reproductive parts of the flower reside. And unknowingly, each fly gets a blob of pollen deposited on her back.

“The pollen is incredible,” Davis continues. In most plants, the pollen is powdery, but in *Rafflesia*, it is “produced as a massive quantity of viscous fluid, sort of like snot, that dries on the backs of these flies—and presumably remains viable for quite a long time,” perhaps weeks. In their pollinating efforts, the flies may travel as much as 12 to 14 miles. Davis’s fieldwork seems to indicate that because *Rafflesia* bloom rarely, successful pollination and fertilization occur infrequently. “But when it does,” he says, “it’s like winning the lottery, because the female flowers produce fruits that look like a manure pie, filled with hundreds of thousands of tiny seeds.”

How the seeds then infect a new host plant is unknown. One whimsical theory is that the seeds are eaten and spread by tree shrews, and moved on the feet of elephants. Davis’s botanical training makes him skeptical of this idea. Each of those millimeter-long seeds carries a little oil body, he explains, “and those oil bodies are generally for ant dispersal. In fact, many of our forest-floor, understory herbaceous plants like trillium and violets, which also have these oil bodies, are dispersed by ants.” In the case of *Rafflesia*, Davis elaborates, ants are not only spreading the seed, but may also some-

how play a role in infecting the host. Perhaps the ants chew into the vine, or are attracted to sugar water leaking from nicks in the vine’s bark caused by animals. Or perhaps the ants drag the seeds back to underground nests where, stored next to the roots of the host vines, the seeds germinate and insinuate themselves into the host. Nobody knows.

What is known is that *Rafflesia* live as a thin necklace of cells that wind throughout cells of the host plant, *Tetrastigma*, a woody vine in the grape family. They tap into the host through an organ called the haustorium, which functions like an illegal connection to the electrical grid, sapping nutrients and water undetected. Fortunately for *Rafflesia*, grape-

vines, as anyone who has cut one knows, are the firehoses of the forest. “If you are ever trapped in the woods,” Davis says, “one of the best sources of water is a vine.” Vines move massive quantities of water, which may be one of the physiological reasons that *Rafflesia* colonize them, he explains. The flowers, which to the touch are like “a Nerf football that is wet,” are mostly water themselves, and the exponential growth of the blooms in the final stages of development is made possible “primarily by pumping massive quantities of water into the flower.”

But it was not the physiology, parasitism, or grotesque pollination biology that drew Davis to the plant. It was what he found in its genes.

DAVIS GREW UP in Michigan, exploring the region’s flora and fauna, particularly birds and insects, with his mother, a high-school biology teacher who traveled to biological stations around the state during the summer. To her, he attributes his interest in the outdoors; he traces his scientific bent to his father, a chemist. But Davis’s entry into plant biology rather than ornithology was serendipity: a mentor and adviser at the University of Michigan told him, “If you want

Photographed from inside the bloom, the plant’s “processes” are of unknown purpose (left). Carrion flies (below) are attracted by the flower’s scent, which is reminiscent of rotting meat. Charles Davis studies the plant’s peculiar genetics.



A & J VIBAGE / ALAMY STOCK PHOTO

NICOLAS GEGALERBA/GETTY IMAGES

to continue with me, it's got to be plants, because that is what I know." During post-doctoral work, he was funded for a project to untangle the evolution of the plant group Malpighiales, which represents nearly 40 percent of the flora in some tropical rainforest understories. And in the midst of that effort, another scientist reported that genetic analysis indicated that *Rafflesia*, too, were part of this order.

The relationship of *Rafflesia* to other flowering plants had been "one of the last remaining puzzles of the broad outline of flowering-plant evolution," Davis explains. Because they don't have *any* vegetative parts ("They go the full monty, as some have said"), they can't be linked to other plants through characteristics such as leaf shape or growth habit. And their unusual reproductive biology, though shared with a few other plants, provided no clues to their ancestry, either. Genetics would have to resolve the place of these strange outliers in the evolution of flowering plants. "By and large, with the advent of molecular genetics...the last 30 years has really been a heyday for plant-evolutionary biologists," he says, "because we've been able to greatly clarify how major groups of plants are related to each other."

But still *Rafflesia* remained an enigma—because, "For the last 30 years, we've used largely genes from the chloroplast to characterize flowering plant diversity," Davis explains. The chloroplast genome governs photosynthesis, the process by which plants convert sunlight into chemical energy. *Rafflesia*, though, are among the most extreme of parasites. They have become so dependent on their host plant that they no longer photosynthesize, and appear, in fact, to have lost their chloroplast genomes entirely. To break this impasse, scientists had to use other genes, largely inaccessible until recently, to establish their relationship to other living plants.

Given his mandate to establish a phylogeny for the order Malpighiales, Davis set out, dutifully, to duplicate the published result for *Rafflesia*. What he found was not just unexpected. It absolutely astounded him. Some of the genes he sequenced confirmed that

Because they don't have *any* vegetative parts—"They go the full monty..."—they can't be linked to other plants through characteristics such as leaf shape or growth habit.

Rafflesia were indeed part of Malpighiales—but other sequenced genes placed them in an entirely *different* order (Vitales)—with their *host* plants. Davis had stumbled upon a case of massive horizontal gene transfer, the exchange of genetic information between two organisms without sex.

To a strict Darwinian, the idea of horizontal gene transfer (HGT) is almost heretical. Darwin understood sex as the means by which organisms exchange genetic information, and modern research has proven that sex improves a population's fitness by preserving the beneficial random mutations that occur during reproduction, while allowing natural selection to pare deleterious changes. The abil-

Buds the size of cabbages take months to form, but the blooms open swiftly, and just eight days after unfurling, the show is over.

ity of two organisms to produce offspring through sexual reproduction has been thought of almost as the *definition* of a species (the "species barrier"). HGT shatters the idea of such boundaries.

Bacteria and some single-celled prokaryotes are known to exchange whole cassettes of genes that perform a particular biological function—enabling, for example, the rapid lateral spread of antibiotic resistance. Human mitochondria, the energy-producing intracellular structures, are also thought to have originated as a horizontal gene transfer from bacteria.

But until Davis's discovery, gene transfers between higher organisms such as plants were considered extremely unusual, and researchers could only speculate about the conditions in which they took place. The unprecedented nature of the transfer Davis uncovered could shed light on questions such as the likelihood that genetic modifications in crops might escape into the environment, and, in medicine, on basic understanding of the evolution, transmission, and maintenance of virulence in human pathogens. The work is also facilitating the identification of *Rafflesia*'s past hosts, since many of the transgenes Davis found came from lineages of plants other than *Tetrastigma*, the current host. These ancient parasite/host associations, a kind of molecular fossil record, could be used to elucidate the timing and origin of plant parasitism itself.

Davis found that the host plant contributed about 2 percent to 3 percent of *Rafflesia*'s expressed nuclear genome (genes in the cell nucleus), and as much as 50 percent of its mitochondrial genome (genes that govern energy production). The sheer scale of the transfer was so far-fetched, his collaborator at the time at first didn't believe that the findings could be accurate. The paper, published in 2012, demonstrated that intimate (please turn to page 75)



A portrait of Justice Stephen Breyer, an older man with glasses, smiling and sitting in a leather armchair. He is wearing a dark suit, a light blue striped shirt, and a red patterned tie. The background is a warm, out-of-focus interior.

A Workable Democracy

*The optimistic project of
Justice Stephen Breyer*

by LINCOLN CAPLAN

JUSTICE Stephen G. Breyer, LL.B. '64, sometimes says that his job and that of other members of the Supreme Court is to speak for the law. He does not mean that justices are Platonic Guardians, with ironclad power to impose their will on the nation despite being unelected. The job calls for deference to the elected branches of government, he emphasizes, and, even more, for caution and doubt. The United States is built on the principles of liberty, he quotes from a famous speech by Judge Learned Hand, and liberty's spirit is "the spirit which is not too sure that it is right."

At 78 and on the Court since 1994, Breyer is often described as a pragmatist whose vote in a case is influenced by the real-world consequences of deciding for one contending party versus the other. He is less predictable and sometimes more conservative—more of a moderate—than the three other justices with him in the Court's liberal wing, Ruth Bader Ginsburg, Sonia Sotomayor, and Elena Kagan. Some of their liberal opinions have sparked celebrity for each of them. Breyer has inspired no similar following.

He is best known as a sparring partner of the late Justice Antonin G. Scalia. Beginning in 1991—when Scalia had been on the Supreme Court for just five years and Breyer was the chief judge of the U.S. Court of Appeals for the First Circuit, in Boston—and continuing for more than two decades, they argued in many events around the country about how each thought a judge should speak for the law.

By almost any measure, Scalia won that long series of encounters. The ideas that he championed were highly influential on legal conservatism as it ascended to prominence in the legal culture. Scalia delivered them with bluster and sometimes bullying, leavened with color and charm: his largeness and loudness were memorable, reinforcing the seeming forthrightness of his thinking. Breyer praised him as a "titan of law" after he died.

It was a victory on accumulated points, however, with no knock-outs. Breyer's geniality and moderation are the opposite of swagger—they reflect his counterview, which is measured and nuanced. He also began with a handicap: when they first debated, Scalia outranked him. But Breyer proposed a coherent jurisprudence as an alternative, which grew clearer over the years. He became the leading member of the Court to challenge Scalia about the role of the Court in American governance, the most important dispute in American law.

Their debates grew out of a technical-seeming yet deep-seated disagreement over laws passed by Congress. Scalia said he believed that Americans are governed by laws, not by the intentions of legislators, so drawing a law's meaning from its development in Congress, he said, is unconstitutional. He was a "textualist," in favor of finding the import of a statute only in its words and structure. Breyer agreed that a judge should do that when it is possible, but took what seemed to him the commonsensical position that, when the meaning of a statute is not clear from the words or their context, judges should read the law's history as a valuable tool in figuring that out.

The debates expanded to address how to interpret the Constitution. Scalia expounded about "originalism," the conservative view that the job of anyone applying America's fundamental law—espe-

cially a justice—is to examine and employ what the Founders meant when they wrote it. Breyer's reply was that, while it was admirable that Scalia sought to restrain himself by proceeding objectively, his method was less objective than he claimed. History often failed to provide clear guidance. Then what? Should the Court refuse to take a case because the record on how the eighteenth century thought about the issue was skimpy?

Scalia and Breyer also addressed the inescapable question about judicial review and the principle that the Supreme Court's reading of the Constitution's meaning is final, unless the Court reverses itself: Because justices are appointed, not elected, and they have life tenure, what keeps them from turning judicial review into judicial supremacy?

In the nineteenth century, the answer was, the Law. By the twentieth century, there was wide agreement that justices *make* law rather than finding it, so the law was no longer the restraint it was once said to be. That left the Court's role as an institution of government as the best alternative: to retain their authority, justices needed to be self-restrained, deferring as much as possible to the democratically elected representatives in Congress, the White House, and the states. In the past generation, though, no one has seriously viewed the Court as a model of restraint. A wide majority of Americans say the justices are often influenced by their political views.

Breyer insists that justices are not "junior-varsity politicians," second-guessing Congress and the president. But he says this because he knows many people are convinced they are. In an era when it has been smart politics to attack government itself, his project has been to explain "the Supreme Court's role in maintaining a *workable* constitutional system of government" (his italics).

In 2005, in his book *Active Liberty*, he defined the phrase as "participatory self-government," built on the belief "not just that government can help people, but that government is the people." He wrote, "My thesis is that courts should take greater account of the Constitution's democratic nature when they interpret constitutional and statutory texts." One way is through judicial *modesty*, because "the judge, compared to the legislator, lacks relevant expertise." But another is through the exercise of judicial *authority*, to "yield better law—law that helps a community of individuals democratically find practical solutions to important contemporary problems."

The legal scholar Cass Sunstein, in the *Yale Law Journal*, in 2006, called *Active Liberty* "a brisk, lucid, and energetic book, written with conviction and offering a central argument that is at once provocative and appealing." He went on, "It is unusual for a member of the Supreme Court to attempt to set out a general approach to his job; Breyer's effort must be ranked among the most impressive such efforts in the nation's long history."

The book helped frame Breyer's importance on the Court, said Risa Goluboff, who is a legal historian, a former Breyer law clerk, and dean of the University of Virginia Law School: it underscored his willingness to take on textualism and originalism, and to insist there were other ways for justices to fulfill their responsibility to support and defend the Constitution.

Active Liberty set out six basic elements to consider in interpreting the Constitution or a statute: its *language* and structure; *history* showing what the words meant to the lawmakers who wrote it; *tradition* telling how the words have been applied in the law; judicial *precedents* interpreting the law; its *purposes*, or the values it embodies; and its *consequences*, or impact. "Some judges," he wrote, "emphasize

the use of language, history, and tradition,” like Antonin Scalia. “Others emphasize purpose and consequence,” like him. “These differences matter.”

In 2010, in *Making Our Democracy Work: A Judge’s View*, Breyer elaborated on why. He recounted the Supreme Court’s past “infirmity”: when decisions it made were “ignored or disobeyed, where the president’s or the public’s acceptance of Court decisions was seriously in doubt.” That acceptance, he underscored, “is not automatic and cannot be taken for granted.” Breyer’s concern was, and remains, the Court’s legitimacy. Public support for the Court has dropped dramatically in the past two decades, with 62 percent of Americans surveyed in 2000 saying they approved of how it was doing its job and only 42 percent saying that last July, after the end of the past Court term.



Tag team: Justices Stephen Breyer and Antonin Scalia testify at a Senate Judiciary Committee hearing on the role of judges under the Constitution, October 5, 2011.

Developments since that book came out have made American democracy ever more unworkable: extreme political polarization; extreme social and economic inequality; and a combination of anger, fear, and money fueling an anti-government upheaval in the 2016 presidential election. That has given urgency to Breyer’s advocacy for a workable democracy—for what once seemed a point of American pride and now seems a utopian alternative.

LAW AS “A SOCIAL INSTITUTION”

BREYER is trim and alert, with a face as expressive as a mime’s, and a solicitous baritone whose tone and volume he turns up or down for emphasis, sometimes within a single sentence. As described by Garrett Epps, who covers the Court for *The Atlantic*, his “manner and writing exude a level of high culture unseen on the Court since Oliver Wendell Holmes retired in 1932.” Breyer told me, “I can’t jump out of my own skin. I am who I am.” But who he is is layered and, off the bench, he does not always exude high culture.

He grew up in a middle-class, Jewish family, in San Francisco. His father, Irving, was a lawyer and an administrator in the public-school system there for 40 years. On election days when Steve was a boy, Irving would take him into the voting booth, let Steve pull the lever, and say, “We’re exercising our prerogative.” Breyer remembers his father as kind, astute, and considerate, the man who helped his son develop “a trust in, almost a love for the possibilities of a democracy.”

His mother, Anne, volunteered for the city’s Democratic Party and the League of Women Voters. Breyer recalls her as intelligent, practical, and public-spirited. He told the Senate Judiciary Committee at his Supreme Court confirmation hearing, “She was the one who made absolutely clear to me, in no uncertain terms, that whatever intellectual ability I might have means nothing and will

not mean anything, unless I can work with other people and use whatever talents I have to help them.”

To learn how to do that, Steve and his brother, Chuck, who is three years younger, went to public schools and joined the Boy Scouts. They went to scout camp because their father’s idea of venturing into the great outdoors was walking in Golden Gate Park and their mother thought they should know the real thing. Scouting took drive. Both Steve and Chuck achieved the Eagle rank, among the 1 percent of scouts in those years who did. They went to Lowell High School, the city’s competitive magnet high school, where both were voted Most Likely to Succeed. (The dedication to *Active Liberty* reads, “To my brother and fellow judge, Chuck.” Charles R. Breyer has been a well-respected federal district judge in San Francisco since 1997.)

Steve turned down Harvard to go to Stanford because his parents were concerned that if he went to Harvard, he would spend too much time with his

books. But he spent enough time with them at Stanford to graduate Phi Beta Kappa, with highest honors in philosophy, and win a Marshall Scholarship to Oxford University. He got a second bachelor’s degree, with first-class honors in PPE (philosophy, politics, and economics), a discipline that people interested in public service often choose.

From there, he went to Harvard Law School, where he was one of the *Harvard Law Review*’s two articles editors, who work on the main pieces published. He was there when the most influential approach to the law at the school was becoming the most influential approach in American law. Called “The Legal Process” and developed by leading professors Henry M. Hart Jr. and Albert M. Sacks, the approach to “basic problems in the making and application of law” was presented in a 1,417-page mimeographed typescript rather than a book. The preface opened, “These materials are concerned with the study of law as an on-going, functioning, purposive process and, in particular, with the study of the various institutions,

Law “exists to help people. If we think of it in that way and of the benefits it can bring people living together, it makes sense to ask what its purpose is and what part of this large institution—the courts? the legislature? the city council?—is best situated to resolve the problem.”

both official and private, through which the process is carried on.”

“The Legal Process” has the aura of the Glass Bead Game, an imaginary, ill-defined challenge testing all fields of knowledge for a select group of scholars, in Herman Hesse’s novel of that name. “A legal system is a system,” Hart and Sacks wrote: “Many of the troublesome and most frequently recurring difficulties in the law are not difficulties of the law of contracts, or torts, or property, or civil procedure, or constitutional law, or any other of the conventional fields of substantive or procedural law. They are difficulties which are intrinsic in the whole enterprise of organizing and maintaining a society which will effectively serve the purposes which societies exist to serve.”

But the approach focused on concrete questions about what it called “institutional competence”: Which government institution should make a legal decision because it is best suited to decide particular kinds of issues. The federal or a state government? An executive agency, the legislature, or a court? A trial court or a court of appeals? If a trial court, a judge or a jury? The approach insisted on “reasoned elaboration,” saying clearly how and why a court made a decision and identifying the principles and policies it relied on that, as the legal scholar Richard Fallon wrote, were “ultimately traceable to more democratically legitimate decision-makers.”

“Law is a social institution,” Justice Breyer told me, “It exists to help people. If we think of it in that way and of the benefits it can bring people living together, it makes sense to ask what its purpose is and what part of this large institution—the courts? the legislature? the city council?—is best situated to resolve the problem.” He went on, “When I went to Harvard Law School, I got exposed to Hart and Sacks through Al Sacks, who was then a professor and later dean. Some people think these ideas are out of date. I don’t. The main points I took from the Hart and Sacks materials are about ‘reasoned elaboration’ and the concept of the ‘reasonable legislator.’” The second phrase is Breyer’s distillation of a Legal Process idea, referring to a person in a legislature that “did not in fact consider a particular problem,” but who “*would have wanted* a court to interpret the statute in light of present circumstances in the particular case” (his italics).

A CONSENSUS-ORIENTED CENTRIST

IN THE DECADE from his high-school to his law-school graduations, Breyer’s record of employment shows the transforming power of top performance in elite education: in the summer of 1955, he mixed salads for the San Francisco recreation department at Camp Mather, its summer melting pot where police officers, fire fighters, and their families vacationed with lawyers, doctors, and business people and theirs; in the summer and fall of 1957, he served six months of active duty in the U.S. Army, as part of a reserve program; and, in the summer of 1958, before his last year at Stanford, he dug ditches for Pacific Gas & Electric Co. After his first year of law school, he was a summer associate at a venerable, now-defunct San Francisco firm; and, after his second year, he worked

in the Paris office of Cleary, Gottlieb, Steen & Hamilton, a leading international firm. (He taught himself French, among other ways, by reading Proust: all seven volumes of *À la recherche du temps perdu* [In Search of Lost Time] in the original, keeping track of new vocabulary words on index cards as he encountered them.)

He graduated from the law school *magna cum laude* in 1964 and went to clerk for Supreme Court Justice Arthur Goldberg. Then he became a special assistant to Donald Turner, on leave from his job as a Harvard Law School professor, who led the Justice Department’s antitrust division. In one of the cases Breyer worked on, the division argued as a friend of the court that real-estate agents in Akron, Ohio, had violated antitrust law when they agreed not to show houses in white neighborhoods to blacks. Breyer wrote the brief and argued the case before the U.S. Court of Appeals for the Sixth Circuit. The side he was supporting won, in the only case he ever argued in a court.

In Washington, he met Joanna Hare, an Oxford graduate who was working as an assistant to the Washington correspondent of the *London Sunday Times*. Her father was a British viscount who received his peerage for public service (as a member of Parliament, in cabinet posts, and as chairman of the Conservative Party). Her mother was from the family that started the Pearson Group, now an international media and education conglomerate, and very wealthy. They were married in 1967 in Suffolk, England, and moved to Cambridge, Massachusetts. Breyer began a career as a Harvard law professor, with, for a few years, a joint appointment at the Kennedy School of Government. Joanna Breyer earned a master’s in education in 1975 and a Ph.D. in psychology in 1983 at Harvard and became a psychologist at the Dana-Farber Cancer Institute, counseling children with terminal cancer and their families. They have three adult children and five grandchildren.

Breyer started as an antitrust specialist, but the year after he got tenure, in 1970, he began to teach administrative law as well. While he was an idiosyncratic teacher and known for being hard to follow, that is where he made a lasting mark as a scholar. His major academic work, *Breaking the Vicious Cycle*, argued that the government spent too many resources regulating small problems and too few on big ones. Cass Sunstein, an expert on administrative law, wrote in 2014 that Breyer’s “most important contribution was to challenge the view that the exclusive focus of the field should be on judicial review of agency action. On Justice Breyer’s account, it is not possible to understand what agencies do, or to evaluate judicial judgments, without having some sense of the substance of regulatory policy as well. It is not easy to overstate the importance of this claim, which has transformed a once-arid field.” He went on, “It is fair to say that as a law professor, Justice Breyer ushered administrative law into the modern era.” (Sunstein is profiled in “The Legal Olympian,” January-February 2015, page 43.)

In 1975, the year he turned 37, Breyer spent a sabbatical year as special counsel to a subcommittee of the Senate Judiciary Commit-

tee chaired by a Democrat, Edward M. Kennedy of Massachusetts. The subcommittee's work led to the formation of a working group in the Ford Administration, which decided that increased reliance on competition in the airline industry would bring cheaper and more efficient airline service. Breyer delivered that conclusion in a report that was a cornerstone of the Airline Deregulation Act of 1978.

In 1979, Kennedy became chairman of the Judiciary Committee and asked Breyer to serve as chief counsel. In the job while on leave from Harvard, he won a reputation as a straight-shooter and a consensus-builder—and, among people who worked closely with him,

sometimes a couple of courses a year, and to speak at academic and other public events, on average about half a dozen times a year.

Then, in 1984, the Sentencing Reform Act passed, with the aim of reducing disparity in federal criminal sentences and in time served in prison. (Sentences for the identical crime in one federal circuit ranged from three years in prison to 20; time served was uneven because of discretion in the parole system.) The law empowered a seven-member, bipartisan commission to create sentencing guidelines for judges. As Kennedy's chief counsel, Breyer had worked on a bill that morphed into the law. He was appointed a commissioner.

The challenges were to figure out what was fair punishment for a crime and which crimes, set out in 688 different federal criminal statutes, warranted the same punishment. When the commissioners discovered they couldn't come to various kinds of consensus—say, about whether pollution is a more serious crime than theft—they based the guidelines on typical past sentences. They extracted categories of crimes and proper lengths of sentences from close analysis of 10,500 sentences that federal judges had imposed, though they stiffened sentences for white-collar crimes, like insider trading, when they found that people convicted of them more frequently got probation.

The guidelines went into effect in 1987. They were said to reflect a practical, non-ideological approach, though they soon got caught in an ideological crossfire about mandatory minimum sentences, which Congress attached to many crimes, thus seriously thwarting the guidelines. They were also exceedingly complicated and Breyer became their main explainer. That reinforced his reputation as a technocrat (a term his friends reject): an independent expert who was a consensus-oriented centrist, keen to help find

feasible solutions to hard problems.

In May 1994, President Bill Clinton, elected in 1992 as a centrist, nominated Breyer for the Supreme Court. He was confirmed 11 weeks later by a vote of 87-9.

For 23 years on the Court, he has been a consensus-seeker and, by inclination, a problem-solver. Solving a legal problem through a ruling in a Court case requires being in the majority. He has been in the majority in many consequential cases, primarily because the Court has handed down major liberal decisions: that the Constitution prohibits a state from sentencing juveniles who are convicted of murder to life in prison without the possibility of parole, for example, and that it requires a state to allow marriages between people of the same sex.

Breyer has also written important majority opinions: last year, for example, for a 5-3 majority, he wrote the most significant opinion about abortion rights in a generation, striking down two provisions of a Texas statute that made it more difficult for many women to gain access to an abortion. He points out that the Court rules unanimously in about 45 percent of its cases, and that the 5-4 rulings make up only about 20 percent.

But, to the leading political scientists who study the institution, the Roberts Court is unquestionably conservative, more so than



ROBERT GIBOUX/AP/GETTY IMAGES

At the White House: President Bill Clinton and Supreme Court nominee Stephen Breyer speak with reporters in the Rose Garden, May 16, 1994.

as someone oblivious of day-to-day politics, with his head happily in the clouds, yet invaluable as a big thinker. In September 1980, Kennedy suggested that Breyer apply to fill an opening on the First Circuit and he did. In the landslide victory of Ronald Reagan over President Jimmy Carter that year, Republicans won control of the Senate. But the week after the election, Carter nominated Breyer and, a month later, he was confirmed by 80-10—the only judge confirmed in the lame-duck session.

He joined the federal appeals court in Boston as its fourth member. It was a small and collegial court, which nicely suited Breyer. His work on the court was widely considered intelligent, fair-minded, and moderately liberal. He disliked overturning federal district court judges. He made clear to his clerks that he hated dissenting. His opinions often focused on the facts. In unadorned declarative sentences (“The old law does not apply,” he wrote in an opinion, “and the new law’s procedures were not followed”), he sought to make the court’s decisions clear and sympathetic, in a simple writing style he consciously developed to make his opinions accessible to people with no knowledge of law.

To past law clerks, who described him to me as a speed thinker and a speed typist and said they suspect he is a speed reader, it looked as if he had three jobs. He continued to teach at Harvard,

Although he “didn’t like picking fights,” from Breyer’s first term on the Court, his most powerful opinions have been dissents, usually for himself and other justices.

the Court was when it was led by Warren E. Burger and then by William H. Rehnquist, the two previous and conservative chief justices, going back almost half a century. The Court’s conservatism and Breyer’s moderation turned him into a dissenter.

IN DISSENT

AKHIL REED AMAR, a constitutional-law scholar and political scientist at Yale, who had clerked for Breyer on the First Circuit a decade before, told him after his confirmation, “Boss, you’re going to have to dissent. You can’t affirm all the time, because that will mean you’re choosing one circuit court over another.” Amar told me, “He didn’t like picking fights.” Yet from Breyer’s first term on the Court, his most powerful opinions have been dissents, usually for himself and other justices. In the five terms ending last summer, measured by the percentage of opinions they wrote that were dissents, Justices Anthony M. Kennedy and Elena Kagan wrote the fewest dissents, Justice Clarence Thomas by far the most, and Breyer was in the middle of the pack, writing dissents on average in about one-third of his opinions—far more than he expected.

The likely confirmation of a conservative justice to replace Scalia means that Breyer’s dissents are now likely speaking to a far-off-future Court that will not include him—and not to a Hillary Clinton-era Court with a liberal majority and with Breyer often a member of it, vying to replace Anthony Kennedy as the swing vote.

Since 2005, under the leadership of Chief Justice John G. Roberts Jr., the Court has been heavily defined by a series of conservative rulings that rejected or overturned well-established law. Among other momentous ones, the Court decided that voluntary efforts to desegregate public schools in two cities were unconstitutional and that any consideration of race in shaping that kind of remedy must overcome a heavy presumption that it is unconstitutional. It held that individuals have a constitutional right to own a gun for personal use and to keep one at home for self-defense. It decided that corporations can require customers to waive their right to class actions and to submit a claim through individual arbitration, even if the amount is so small that no realistic lawyer would take the case. In its signature ruling, *Citizens United*, it held that money equals speech and that banning the independent spending of corporations, unions, and other organizations in political campaigns infringes on their right to free speech.

Breyer has written important dissents from each of these weighty rulings of the Roberts Court, as well as others. They lack the eloquence and argumentative verve of dissents by Kagan, who is the Court’s outstanding writer. Conservatives have dismissed them as unprincipled pragmatism and described some as dangerous. But they are distinguished by all the traits that characterize Breyer’s legal career: their thoroughness in testing the value of legal doctrine

against its real-world consequences, their deliberateness in exploring the difficulties of both sides, and their effort to persuade readers with all the facts needed to agree with his conclusion. They almost never show the passion (as well as irritation) he reveals on the bench during oral argument when it is likely he will be in the minority.

An exception is his most important dissent, to him and to many others, in *Parents Involved in Community Schools v. Seattle School District No. 1* (2007). It is his longest opinion as a justice and, in contrast to his other dissents, it is full of passion. The Court rejected a 36-year-old rule that the Constitution *permitted* local communities to use remedies taking account of race to desegregate public schools even when it did not *require* them to. Breyer said that decision distorted precedent, misapplied the Constitution, announced legal rules that would make it much harder to reverse the growing re-segregation of schools, and subverted *Brown v. Board of Education*, which found that school segregation violates the principle of equality at the heart of the Constitution.



In the Court: Justice Breyer works with his clerks in his outer office, June 17, 2002.

The Chief Justice, who wrote the plurality opinion, was just as harsh about Breyer’s dissent. He said it “selectively relies on inapplicable precedent,” “alters and misapplies our well-established legal framework for assessing equal protection challenges to express racial classifications,” and “greatly exaggerates the consequences of today’s decision.”

The crux of their disagreement was about the meaning of *Brown*. Roberts asserted that the ruling is about colorblindness: The Constitution’s Fourteenth Amendment prohibits the government from treating American children differently on the basis of their color or race. The closing line of the majority opinion expressed the Chief Justice’s conviction that *Brown* outlawed *discrimination*: “The way to

Along with *Citizens United*, the *McCutcheon* “decision eviscerates our Nation’s campaign finance laws, leaving a remnant incapable of dealing with the grave problems of democratic legitimacy that those laws were intended to solve.”

stop discrimination on the basis of race is to stop discriminating on the basis of race.”

Breyer viewed *Brown* as outlawing *subordination*—ending the perpetuation of “a caste system rooted in the institutions of slavery and 80 years of legalized subordination,” by relegating black students to lower status in segregated schools. That was a matter of current events because many American public-school systems were re-segregating.

When Breyer delivered his dissent from the bench the day the decision was announced, he included, with a quiet but angry sorrow, a sentence that did not appear in his opinion: “It is not often in the law that so few have so quickly changed so much.” He was referring to Roberts’s replacement of Chief Justice Rehnquist and to Justice Samuel A. Alito Jr.’s of Justice Sandra Day O’Connor, and to their substitution of conservative activism for conservative restraint.

In *Citizens United* (2010), when the Court ruled that the government may not ban political spending by corporations, unions, and other organizations, Breyer joined the dissent of John Paul Stevens rather than writing his own. But in 2014, in *McCutcheon v. Federal Election Commission*, when the Court struck down a long-time limit on the total amount a person can contribute to federal candidates in a two-year election cycle, Breyer dissented, saying bluntly that it was “wrong to do so.” With *Citizens United*, he went on, the *McCutcheon* “decision eviscerates our Nation’s campaign finance laws, leaving a remnant incapable of dealing with the grave problems of democratic legitimacy that those laws were intended to solve.”

For a plurality, Roberts wrote, “The right to participate in democracy through political contributions is protected by the First Amendment, but that right is not absolute. Our cases have held that Congress may regulate campaign contributions to protect against corruption or the appearance of corruption.” His definition of corruption is a *quid pro quo*: a direct exchange of an official act for money, a form of bribery. That narrow conception excludes efforts to gain influence over or access to elected officials—all the more so with enormous campaign contributions that far exceed the average citizen-voter’s means.

“In reality,” Breyer responded, “as the history of campaign finance reform shows and as our earlier cases on the subject have recognized, the anticorruption interest that drives Congress to regulate campaign contributions is a far broader, more important interest than the plurality acknowledges. It is an interest in maintaining the integrity of our public governmental institutions. And it is an interest rooted in the Constitution and in the First Amendment itself.”

The protection of free speech and free press includes the right of an individual to engage in political speech, but, as important, Breyer said, it protects the interest of the public in the *collective* speech that shapes and, really, defines American democracy. “What has this to do with corruption?” Breyer asked. “It has everything to do with corruption. Corruption breaks the constitutionally necessary ‘chain

of communication’ between the people and their representatives. It derails the essential speech-to-government-action tie. Where enough money calls the tune, the general public will not be heard.”

FOES AND FRIENDS

SOME OF HIS VOTES in cases appear motivated by the desire to boost consensus. After Scalia’s death last term, for example, he voted with the conservatives to uphold a police officer’s stop-and-search of a man who had walked out of a house where the officer thought there might be “drug activity,” which was not enough evidence to stop him. The decision all but invites police to make illegal stops and, as Justice Sotomayor wrote in dissent, “it is no secret that people of color are disproportionate victims of this type of scrutiny.” Breyer’s goal seems to be to avoid outcomes that leave all of the justices looking like junior-varsity politicians—in the stop-and-search case, by avoiding another 4-4 decision, with Republican-picked conservatives on one side and Democrat-picked liberals on the other.

His outlook is “Yesterday’s foe, today’s friend,” said Justin Driver, who teaches at the University of Chicago Law School and clerked for Breyer on the Supreme Court: “Even if you disagree vehemently with colleagues today, they are your allies tomorrow.” Neal Katyal, a leader in the Supreme Court bar who was acting solicitor general in the Obama administration and was an early Breyer Court clerk, said that when another justice wrote something nasty in an opinion about one of Breyer’s and the clerks wanted their boss to retaliate, he would decline and say, “This, too, will pass.” Seeing Breyer adhere to this ethic gave Katyal and other former Breyer clerks a north star to steer by as lawyers.

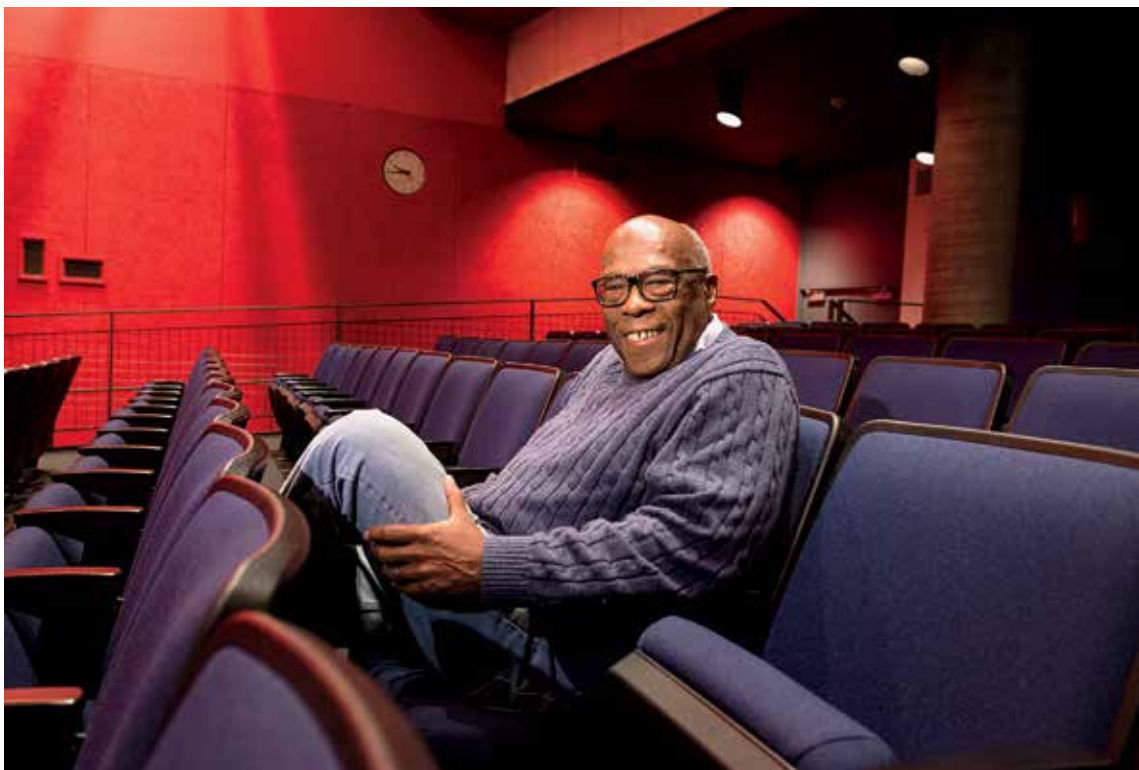
Bush v. Gore, the ruling of the Supreme Court that gave the 2000 election to George W. Bush, tested the extent of Breyer’s dedication to the ethic. It was as crushing for him as the decision striking down voluntary school-integration plans. For many Court-watchers, it was the ultimate proof that the justices reach whatever result they want to. The outcome was “not dictated by the law in any sense,” as the University of Chicago’s David A. Strauss wrote. Breyer issued a prophetic dissent, in which he said that the deeply divided ruling ran “the risk of undermining the public’s confidence in the Court itself.” That clearly happened.

Under the auspices of Yale Law School’s China Center, Breyer has since made trips to China, to meet with Chinese law professors and students. He invariably gets asked about *Bush v. Gore* and his dissent. According to Paul Gewirtz, a friend of Breyer’s and the professor who founded and leads the center, he always says something like: I thought the decision was wrong and very important. But in response to it, there were no riots, there were no police trucks in the streets, there were no people throwing stones. That is a tremendous virtue of our system.

His latest book, published in 2016, is called *Against the Death Penalty*. At its heart is a lengthy and great dissent (please turn to page 75)

Montage

Art, books, diverse creations



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- 61 Holding Emotion "At an Observer's Distance"

Documentarian Kent Garrett '63 returned to Harvard last fall for a screening of his work.

realizing that the pilot had coordinated with the patrol beforehand. When the soldiers arrived a few minutes later, "We'd never been as happy to see anybody as those guys."

Garrett went on that reporting trip for the television program *Black Journal*, created by NET (the network later succeeded by PBS) after the Kerner Commission, in the

wake of serious race riots in 1967, pushed for more expansive and integrated media coverage of black communities. "It was really revolutionary times," Garrett said at a Harvard Film Archive screening this past November. Though short-lived, *Black Journal* recently has earned more widespread recognition among critics and scholars as a key, neglected chapter in the history of African-American cinema. At a time when the Hollywood studio system shut them out, public television provided an essential platform for black independent filmmakers, and *Black Journal*, with its offer of a 10-week

Reel Revolution

A television documentarian looks back.

by SOPHIA NGUYEN

FOR AN ANXIOUS, endless moment in 1969, Kent Garrett '63 thought he'd been stranded in Vietnam. En route to film a long-range patrol, the helicopter carrying his small documentary crew suddenly landed. The pilot threw their equip-

ment out the window, told them to jump out, and sped away to a firefight. "And so we're standing there in the middle of nowhere," recalls Garrett. "With these white, shiny cases. Three black guys. And we're saying, 'What the heck?'" They waited, terrified, not

O P E N B O O K

Desire and Design

Wendy Lesser '73, the founding editor of *The Threepenny Review* and a critic of unusual scope (witness recent books on reading and on Shostakovich), has now written *You Say to Brick: The Life of Louis Kahn* (Farrar, Straus and Giroux, \$27), about the zenith of architectural creativity. The title (from Kahn's elemental teaching about the essence of materials, "You say to a brick, 'What do you want, brick?'...") weaves together a biography; Lesser's visits and reactions to some of Kahn's most significant works; and an intriguing speculation about the inner drives that propelled him both to brilliant design and to numerous affairs, illegitimate children, and chaotic business practices. He was a modernist who looked *backward*, in a colleague's assessment—to the essential forces of building and of life. In Lesser's telling:

...**"Desire is irresponsible,"** Lou himself commented. "You can't say that desire is a sense of purity. It has its own purity, but in the making of things great impurities can happen."

He saw the danger, but he did not disown it. And this respect, if that is the right word, for desire, for the original impulse that motivates all making and taking, was essential to Kahn's views, governing his sense not only of how life might be lived but also of how architecture might be practiced. "I do not believe that beauty can be deliberately created," he wrote in his notebooks. "Beauty evolves out of a will that may have its first expression in the archaic. Compare Paestum with the Parthenon. Archaic Paestum is the beginning. It is the time when walls parted and the columns became and Music entered architecture.... The Parthenon is considered more beautiful, but Paestum is still

more beautiful to me. It presents a beginning within which is contained all the wonder that may follow in its wake."

To insist on a perpetual sense of wonder—or to argue, as Kahn did, that a great building "must begin with the unmeasurable, must go through measurable means when it is being designed and in the end must be unmeasurable"—is to resort continually to the same impulses that fuel desire. One must be constantly acting on one's own feelings, one's own responses: Is this what I really wanted to do? Does this or that element need to be altered to accomplish what I envisioned? How about this unexpected factor—can I use it to get back to my original idea, but in a new way? The process is all about beginnings, for Kahn. And it is in the beginning, of course, that every desire burns with its most searing intensity. Kahn's wish to return there, repeatedly,

was perhaps his most salient characteristic as both an architect and a man.

The two were, in any case, probably not separable.

Louis Kahn, and archaic Paestum—the "beginning" of beauty



crash course in basic film production, became an important training ground for producers and technicians.

The show had a contentious start. An early segment on the clothing brand that popularized the dashiki almost fell through when the proprietor objected to the story's having only white producers, reports media scholar Devorah Heitner in her book, *Black Power TV*; and at a party celebrating the release of the first episode, in June 1968, a well-meaning white assistant served fried chicken and wa-

termelon. Black staff members objected to the gap between the program's promise—to be a national production by, for, and about African Americans—and its reality under white management. Garrett and his colleagues eventually went on strike, leading the network to name William Greaves, then in front of the camera as co-host, as the new executive producer. Under black editorial control, "The feel of the pieces changed. We didn't have go through a white filter," says Garrett. "There's kind of a directness. And I think that was reflected in the pieces."

Under black editorial control, says Garrett, "The feel of the pieces changed. We didn't have go through a white filter."

They also reflected Greaves's background in underground cinema. Despite the staid norms of public television, *Black Journal* aired documentaries with expressive cinematography and emphasized man-on-the-street interviews over editorializing narration. Garrett's 1969 documentary *Black Cop*, a nuanced portrait of policemen in New York City and Los Angeles, intercuts interviews with police officers and members of the communities they patrolled. Its mood shifting between jittery and oddly placid, the film follows its subjects down busy streets, into dim stations: a typical day on the job, set to the music of John Coltrane. One scene, especially striking in the age of body cameras and Facebook Live, records an altercation between an officer and an angry driver



ISTOCK

whose keys have been confiscated. The incident is resolved without excessive force; some unrealized tension dissipates. Even the most minor incident, the scene implies, can be fraught, and must be handled with care.

Black GI, about African Americans in the military, also takes a keen interest in life's daily texture. The camera zooms in on elaborate handshakes and hand-embroidered Black Power patches, or a broom pushing spent shells off a riverboat. But the film foregrounds this intimate detail with bigger questions: the introductory sequence provides a capsule military history that starts with the Spanish-American War; later, Garrett sharply questions minority officers about soldiers defending rights abroad that they can't fully exercise at home. It's hard to imagine a typical news documentary closing, as his does, on the image of a closed fist against the blue sky of Vietnam.

Black Journal's funding dried up in the early 1970s, and when PBS decided to stop airing the show in 1976, the program took refuge on commercial airwaves under host Tony Brown. "Greaves knew what we younger staff members didn't," executive producer St. Clair Bourne later reflected. "This film making opportunity would not last, but the films would."

Garrett had gotten his start in television directing advertisements. "I remember spending months on a set, trying to get these cereal things to pop out of the box correctly, so we'd have the right shot and all that," he says. "That was not particularly good for the mind." *Black Journal* showed him the medium's potential power: "You could see it raising the consciousness of people as you traveled around the country." He went on to work at NBC and CBS, winning two Emmy Awards and covering the Reverend Jesse Jackson's presidential campaign in 1984. But by his third decade in the news business in New York City, he felt the powerful need to escape. He moved upstate and became an organic dairy farmer, though he still worked as a news director for a local Fox affiliate between twice-daily milkings. "What happened with me—or what happens, maybe, with a lot of people in the city—is you get a little ego," he says. "And the nice thing about cows is that they're going to shit on you anyway. They don't care if you have three Emmys, or 20 Emmys."

He has since sold the herd ("It's a young man's game"), and is currently at work on a book called "The Last Negroes at Harvard,"

about the experiences of the 18 black men and one black woman in his class. Their undergraduate days predated the campus unrest of the 1960s, Garrett points out. "There was a sort of sense of innocence, then." Still, the first-year contingent entering in the fall of 1959 included the most African-American students Harvard and Radcliffe had

ever admitted—enough, says Garrett, that they developed a sense of group identity. They brought Malcolm X to speak at Eliot House, and attempted to start a black student association. "In many ways, we were curiosities," he says. "But as the consciousness increased in the nation, it increased here, too, with us."

Reality Fiction

Depicting "the world as it is"

by MADELEINE SCHWARTZ

IT DOES NOT TAKE LONG for a reader to realize that Selin Karadag, the tall, funny, and clever Harvard freshman who narrates *The Idiot*, has more than a few things in common with Elif Batuman '99, its tall, funny, and clever author. Like Selin, Batuman came to Harvard hoping to discover the deep secrets of books, "what literature really meant." Like Selin, she tried to answer this question through linguistics, but soon found that the field lacked a master key to language. (One seminar assignment requires Selin to explain a theory to Martians, using logic notation. "It wasn't clear to me why the Martians were supposed to be so good at logic," she thinks.) Like Selin, Batuman instead gravitated toward Russian literature, which she found "profoundly human," eventually earning a Ph.D. in comparative literature; she detailed the experience in her bestselling collection of essays, *The Possessed*.

Batuman, now a staff writer for *The New Yorker*, has chronicled weird corners of academia: an Isaac Babel conference that brings together relatives of the author who hate each other ("THAT OLD WITCH WILL BURY US ALL," one yells at the other); Danteans in Florence who sing out his entire work, dressed in red shirts from Zara; a conference of Tolstoy scholars where, luggage lost, she is forced to attend the proceedings in pajamas and is applauded for her devo-

tion to the Tolstoyan movement. She's also a gifted reporter who has written dispatches from Turkey, where much of her family originates. A novel seems like a departure—except that she had wanted to write *The Possessed* as fiction, until her editors learned that her summers learning Uzbek in Samarkand and attempting forensic dissections of Tolstoy's estate Yasnaya Polyana had actually happened. She places little importance on genre, joking that no one made Proust say, "This is a memoir about my childhood."

The Idiot (its title, like that of *The Possessed*,



Elif Batuman

BEOWOLF SHEEHAN

is a nod to Dostoyevsky) is a large and often loose account of Selin's first year of college. Over the course of the book, she falls in love with an older math student and eventually follows him to Hungary, where she teaches English in a village. (Among her responsibilities: judging a Hungarian leg contest.) It's animated by a voice that seems at once very much Batuman's own and fully recognizable to any student who enters Harvard Yard: overwise yet totally naive. At the opening of the book, Selin sets up an Internet

connection. "What do we do with this, hang ourselves?" I asked, holding up the Ethernet cable. 'You plug it into the wall,' the girl said."

Batuman has lamented, in criticism for *N+1* and *The London Review of Books*, that contemporary fiction is too often artificially concise and whittled down,

while "the ghosts of deleted paragraphs rattle their chains from the margins." The novel, she thinks, should contain seemingly inconsequential bits of daily existence: "all the irrelevant garbage, the effort to redeem that garbage, to integrate it into Life Itself, to redraw the boundaries of Life Itself." And so *The Idiot*, appropriately, has a delight-

ful fullness, going from what Selin is reading—Nabokov's lectures, *Bleak House*, Epictetus—to varied details about undergraduate life: the food at Annenberg, passages from a beginner Russian textbook, the conversations of other students. (In an art seminar called "Constructed Worlds," for example, "One student had constructed a world that was just *Star Wars*. It was completely identical to *Star Wars*, only she had given all the characters old Welsh names.")

Partly this fullness results from the book's creation process. By the time she got to Harvard, Batuman knew she wanted to be a writer, and was constantly writing everything down in spiral notebooks "to a very weird degree." Much of this material, including many emails she sent, made it into the novel. But she didn't yet know how to write for others, trying instead to cram dozens of points onto the page. "It didn't occur to me that I could say all the things I wanted to say in a way that anyone could understand." She credits her senior tutorial in Russian literature for teaching her how to write something someone might actually read. Her professor made writing "a situation of kindness," where the reader wants to have a good time—and so does the writer.

Batuman is now working on a book about Turkey, as well as a sequel to *The Idiot*. "I had this idea," she says, "that writing autobiographical fiction was cheating in some way, or it was less creative." But there's a problem-solving element to writing about oneself, she

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At the Radcliffe Institute, a touchable exhibit plays with perception.

harvardmag.com/jacob-17



continues, when you realize that what gets you from one point to another in the text is an experience of your life you hadn't ever thought of before. During such moments of consonance between experience and literature, "It feels that reality is supporting you.... You're being carried on a cushion of the world as it is," she says. "It's the most exciting part of reading, too": noticing something you hadn't been aware of before, and wouldn't have thought could be described.

Harmonic Progression

Composer Robert Kyr embraces peace, love, and nature.

by LYDIALYLE GIBSON

THERE ARE so many places to begin with composer Robert Kyr. Like here: "I grew up in a family where the scars of war were very much with us," he says. His father had served in the South Pacific in World War II; his uncle had lost a leg in the Italian theater. And his mother, working for the Red Cross, had been one of the first to see the death camps after they were liberated. As an administrative assistant to the American military, she walked through room after room with officers, taking shorthand on the atrocities that

had happened in each one. Then she wrote up a classified report and never talked about it again, until one day out of the blue when her son was 16. "She spoke for about 20 minutes and then fell silent, and we sat there for what felt like an eternity," Kyr, JF '81, Ph.D. '89, remembers. "And then she said, 'I just had to tell you, because I thought that someday you might do something with this.'"

Or one could begin in 1969, when the Cuyahoga River in Cleveland caught fire. Sparks from a passing train ignited oil-slicked floating debris, and smoke and

flames engulfed the water. It wasn't the first fire on the Cuyahoga—a polluted river in an industrial city—but it was the most publicized, and for Kyr, a high-school junior on the West Side who had recently joined a student environmental-outreach group, it was "a five-alarm bell."

Or maybe here is the place to begin: with Kyr at the piano. He'd been banging on the keys since he was two or three, and began taking lessons—and composing songs—at 10. At age 11, he started playing pieces from *Notebook for Anna Magdalena Bach*, a collection of music that the Baroque master wrote for his wife. "The first time I heard Bach was through playing those little pieces and his 15 two-part inventions," Kyr says. "I kept returning to them again and again because they spoke to me in a way that no other music ever had." Or ever would.

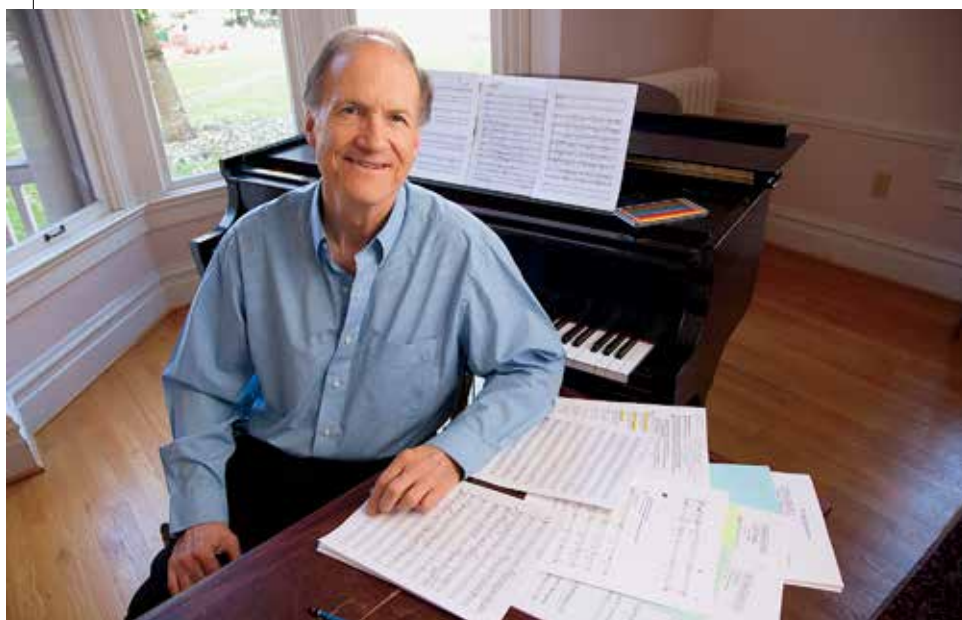
Now 64 and a professor of composition

and theory at the University of Oregon, Kyr is one of the most prolific composers of his generation. Some days he spends as many as 14 hours composing (it helps that he sleeps only four hours a night). He's written 12 symphonies, three chamber symphonies, three violin concerti, a piano concerto, and too many choral works to count: cantatas, oratorios, a passion. Patient, tender, emotionally complex, and easily approachable, his music draws on Western medieval, Renaissance, and Baroque styles—Bach is his lodestar—as well as Eastern traditions, especially the Balinese gamelan.

His oeuvre orbits broad themes planted deep since childhood: peacemaking, environmental concerns, love, compassion, forgiveness. That long-ago conversation with his mother influenced his 2012 work “The Unutterable,” which featured a narration of Paul Celan’s poem “Death Fugue” as part of a three-month Holocaust remembrance project in Austin. Elsewhere, he has integrated testimony from witnesses and survivors of violence: the 2005 symphony “Ah Nagasaki: Ashes into Light,” sung in both Japanese and English, commemorated the sixtieth anniversary of the atomic bombing with performances in Nagasaki and its American sister city, St. Paul. More recently, “Waging Peace,” a five-movement work, emerged from 400 pages of written accounts by residents of Baton Rouge, a city torn by crime and conflict.

Kyr’s home in Eugene sits 1,000 feet up from the valley floor, surrounded by 70-foot trees.

Before writing anything down, Robert Kyr composes his works—music and text—“internally,” he says, from start to finish.



Chapter & Verse

Correspondence on not-so-famous lost words

Douglas R. Bunker asks if anyone can offer a citable source for a definition of power, attributed to Stalin, as the “strategic or intelligent use of cruelty.”

“Union” (January-February). Hiller Zobel noted that in the U.S. Constitution, “Union” appears in the preamble (“...a more perfect union...”) and in Article II, section 3 (“...information of the state of the Union...”), among other places. (Article VI, section 6, regarding the new nation’s prior debts, refers to “the Confederation” among the states existing before

ratification of the Constitution.) Bernard Witlieb recommended examples from *A Dictionary of Americanisms on Historical Principles* (1946), edited by Mitford M. Mathews, including, from the *Fredericksburg Virginia Herald* (February 1829): “To the purpose of party leaders, intending to accomplish the dissolution of the Union and a new Confederacy....”

Send inquiries and answers to “Chapter and Verse,” *Harvard Magazine*, 7 Ware Street, Cambridge 02138 or via email to chapterandverse@harvardmag.com.

Deer roam the yard and hawks fly overhead. “I live in a forest,” he says. “When I look out the window, I don’t see neighbors. The architecture of the Pacific Northwest is trees.” Many of his works celebrate nature and call for its preservation. For his 2007 oratorio, “A Time For Life,” he wrote a choral text weaving Native American prayers, songs, and chants with Eastern Orthodox hymns and Old Testament verses; the symphony “Yosemite: Journey into Light” combined photographs and video of the national park with Kyr’s music.

As much as anything else, Kyr’s work is guided by spiritual exploration. His family didn’t attend church—his father was raised

Catholic, his mother Lutheran—but when his parents died in 1981, he found himself exploring religions from around the world. “I discovered that I’m interfaith,” he says. “I celebrate with people of all faith backgrounds.” Since 1993 he has spent about eight weeks each year at Christ in the Desert Monastery, a Benedictine abbey in the gorgeous and remote wilderness of a New Mexico mesa canyon: “My spiritual home.” During solitary hikes along the Chama River, he composes music “internally” and then returns to the monastery to write deep into the night. There he created one of his most spiritually searching works, “Songs of the Soul,” a 47-minute cantata venerating and responding to music by Bach and three Renaissance composers. Its companion cantata, recorded by the Grammy-winning vocal ensemble *Conspirare*, is “The Cloud of Unknowing,” which takes its title and part of its text from a fourteenth-century guide to contemplative prayer.

This past year, he helped launch the Harvard Chorus New Music Initiative, a program for undergraduates. He mentored seven students through a seven-month process that



Off the Shelf

Recent books with Harvard connections

Civil Wars: A History in Ideas, by David R. Armitage, Blankfein professor of history (Knopf, \$27.95). The planet has not been globally at war since 1945, but “The world is still a very violent place,” the author notes, as “Civil war has gradually become...the most characteristic form of organized human violence,” prompting this original history of the idea and its unfortunate metastasis.

As dynasts, the Bushes and Clintons fell far short of the standard-setting Boston Brahmins, covered in two new books. **The Lowells of Massachusetts: An American Family**, by Nina Sankovitch, J.D. '87 (St. Martin's, \$27.99), chronicles the archetype, through and including Lawrence, whose accession to the Harvard presidency must have seemed preordained. **Robert Lowell, Setting the River on Fire**, by Kay Redfield Jamison (Knopf, \$29.95), is a deep psychiatric perspective on the connection between bipolar illness and creativity, involving the great poet whose *Crimson* experience is remembered less for his incomplete undergraduate studies than for his subsequent teaching (see “The Brahmin Rebel,” May-June 2004, page 39).

William Wordsworth, The Prelude, edited by James Engell, Gurney professor of English literature and professor of com-

parative literature, and Michael D. Raymond, A.L.M. '00 (Godine, \$40). The great Romantic poem, newly edited from manuscripts, with critical commentaries, is lushly illustrated with contemporary, complementary paintings, drawings, and other artworks.

Thirtyfour Campgrounds, by Martin Hogue, M. Arch. '93 (MIT, \$34.95). A landscape architect meticulously depicts the intersection of Americans' desire to commune with nature with their devotion to their stuff—and hence the rituals of parking trailers, service hook-ups (today including WiFi), setting out lawn chairs, and more. Forget about traveling light.

The Crisis of the Middle-Class Constitution: Why Economic Inequality Threatens Our Republic, by Ganesh Sitaraman '04, J.D. '08 (Knopf, \$26.95), probes a different kind of threat to the American way. A former staffer to Senator Elizabeth Warren observes that the Constitution was drafted at a moment of unusual equality, and so is ill-suited to addressing the distortions of power caused by current levels of inequality. Whatever other problems loom, he argues, “It is much harder to have a functional constitutional republic without a strong middle class.”

Presidents' Secrets: The Use and Abuse of Hidden Power, by Mary Graham '66, co-director of the Transparency Policy Project at the Harvard Kennedy School (Yale, \$30). In a time of uncertainty about a very different administration, Graham provides timely, if worrisome, historical context.

Casting astute eyes on a very different landscape, in **Ecologies of Power** (MIT, \$39.95 paper), Pierre Bélanger, associate professor of

landscape design, and Alexander Arroyo, M.L.A. '13, assess U.S. military “logistical landscapes” and the “military geographies” of defense, conducted on a scale large enough to mark, and even remake, the planet.

American Covenant: A History of Civil Religion from the Puritans to the Present, by Philip Gorski '86 (Princeton, \$35). A Yale sociologist plumbs the apparent divide between conceptions of the United States as a Christian nation or a secular democracy, and finds a combined civic republicanism—a key to the “American project”—put at risk in today's intense culture wars.

The Face of Water: A Translator on Beauty and Meaning in the Bible, by Sarah Ruden, Ph.D. '93 (Pantheon, \$26.95). A classical philologist with a vivid grasp of languages and imagery ancient and contemporary (how would you write up a Paul Simon/Ladysmith Black Mambazo antiapartheid concert?) tries to make the Bible “less a thing of paper and glue and ink and petrochemicals, and more a living thing.”

In the Heat of the Summer, by Michael W. Flamm '86 (University of Pennsylvania, \$34.95). An Ohio Wesleyan historian digs into the “Harlem Riot” of 1964 (a white policeman shoots a black teenager, a demonstration turns to protests, riots ensue) to illuminate the “wars” on poverty and on crime, national political polarization, and issues that resonate still: militarized policing, mass incarceration, and “law and order.”

The Campus Rape Frenzy, by KC Johnson and Stuart Taylor Jr., J.D. '77 (Encounter Books, \$25.99). Historian Johnson and journalist Taylor (who was a petition candidate for the Board of Overseers last year, and has written critically about affirmative action), critiqued accounts of Duke's infamous lacrosse case. Here, they join to attack “a powerful movement” that has made it unlikely that “colleges and universities—and their students—will judge sexual assault allegations fairly” because of what the authors perceive as violations of due process.

Windermere, 1821, by Joseph M.W. Turner, in the spirit of Wordsworth



BRIDGEMAN ART LIBRARY



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Harvard Square as it was, 1962

Building Old Cambridge, by Susan E. Maycock and Charles M. Sullivan, M.C.P. '70 (MIT, \$49.95). From the Cambridge Historical Commission's survey director and executive director comes a massive, absorbing, and enthrallingly illustrated volume on the community's evolution—full of enlightenments even before chapter 10, on the “Development of Harvard University.”

Matters strategic: **The Imagineers of War**, by Sharon Weinberger, RI '16 (Knopf, \$30), is a comprehensive account of the Defense Advanced Research Projects Agency—the folks who brought you the Internet, drones, and self-driving-car technology, plus some terrible ideas, some of them unfortunately implemented. **The Chessboard and the Web**, by Anne-Marie Slaughter, J.D. '85 (Yale, \$26), lays out the case for moving beyond a chess image of international relations (the United States vs. Iran, say) toward a “playbook for strategies of connection” (U.S. interest in Syria not as a strategic concern itself, but as a destabilizing source of refugees); it would be interesting to see that applied to coming trade confrontations with China. The U.S. negotiators might want to pack **The Girl at the Baggage Claim: Explaining the East-West Culture Gap**, by Gish Jen '77, RI '02 (Knopf, \$26.95), who turns from fiction to cultural analysis to sort out the roots of “so much of what mystifies us”—needlessly—“about the East.”

ended with a performance of their finished musical works by a professional chorus, the Antioch Chamber Ensemble. (He is mentoring a new group this spring.) He also led a workshop for Radcliffe Choral Society and Harvard-Radcliffe Collegium Musicum members that culminated with the creation of “In the Name of Music,” which was premiered in November at Sanders Theatre. “I wanted to engage the singers in the process of writing the text, so that they would ultimately be singing about a theme that deeply concerns

them,” Kyr says. When he asked them what issues concerned them most, their answers had a common thread: the transformative power of music.

It's a common thread for him, too. He sees music as a form of storytelling. At the end of a long interview comes a reference to Bach's “St. Matthew Passion,” a soaring, opera-like oratorio. “For me,” he says, “it expresses how each member of the human family experiences the suffering of the passion in his or her own way, regardless of one's faith background.” The story Bach was telling was one with human resonance: suffering and loss, decisions that relate to our own life and death. “Bach takes us on the journey of the passion, which reflects our personal relationship to suffering, and ultimately, the triumph of life over death.”

Holding Emotion “At an Observer's Distance”

Elizabeth Bishop's enduring privacy

by ADAM KIRSCH

BY THE TIME Elizabeth Bishop began to teach at Harvard, in 1970, she was nearing the end of an exceptionally brilliant career in American poetry. Though she published little—just four collections, a total of about 100 poems—her work earned the Pulitzer Prize and the National Book Award. She was regarded as a master by poets as different as Marianne Moore, her early mentor, and Robert Lowell '39, her close friend and longtime correspondent. It was Lowell who brought Bishop to Harvard, to take over his creative writing classes while he lived in England (see “The Brahmin Rebel,” May-June 2004, page 39). But while Bishop belonged to the first generation of American poets to make their living in the academy, she herself had spent almost no time in the classroom, and she didn't feel at home there. Neither her reserved personality nor her extremely high standards made her a natural teacher, and the enrollment in

her classes was usually small. Megan Marshall '77, RI '07, who took Bishop's class in 1976, recalls that the great poet often wore “a pained look”: “Miss Bishop really did seem to wish she wasn't there.”

If Bishop had known that, 40 years later, Marshall would write a biography—*Elizabeth Bishop: A Miracle for Breakfast*—she would probably have been still less enthusiastic. Bishop belonged to a poetic generation that revealed more about itself in verse than any earlier poets had thought possible, or necessary. “Confessional” poetry, as the school of Lowell and Anne Sexton came to be known, delighted in putting as much fact as possible on the page, especially facts that were painful or shameful. “Yet why not say what happened?” Lowell asked in his poem “Epilogue,” and so he did—writing about his childhood,

Elizabeth Bishop: A Miracle for Breakfast, by Megan Marshall (Houghton Mifflin Harcourt, \$30)

his parents' marriage, his own divorce.

Yet in this way, too, Bishop was an exception. Marshall quotes a letter in which Bishop wishes that she could be like all those other poets who "drink worse than I do, at least badly & all the time, and don't seem to have any regrets or shame—just write poems about it." But what she derisively called "the School of Anguish" was not for her; and even though she was closely acquainted with anguish, as Marshall shows, little about her life can be deduced from her poetic work. Her method was, rather, to hold emotion at an observer's distance, lodging intense feeling in things—objects, landscapes, animals—that could be seen and described. The titles of her poems are often just nouns: "The Map," "The Moose," "The Fish."

Only by attending closely to the powerful tension of Bishop's language does the reader

grasp how much is at stake in these descriptions. One of her most famous poems, "At the Fishhouses," starts out as a kind of genre picture: an old fisherman mending nets, the "steeply peaked roofs" of the houses. But the poet's attention keeps getting drawn back to the water, which she describes as "Cold dark deep and absolutely clear,/element bearable to no mortal." In the poem's climax, Bishop fantasizes about what it would be like to touch and taste this deadly sea. To call this a poem about suicide would be too blunt; but there is no doubt that the poet's dread and longing for the water is what provides the emotional logic and force.

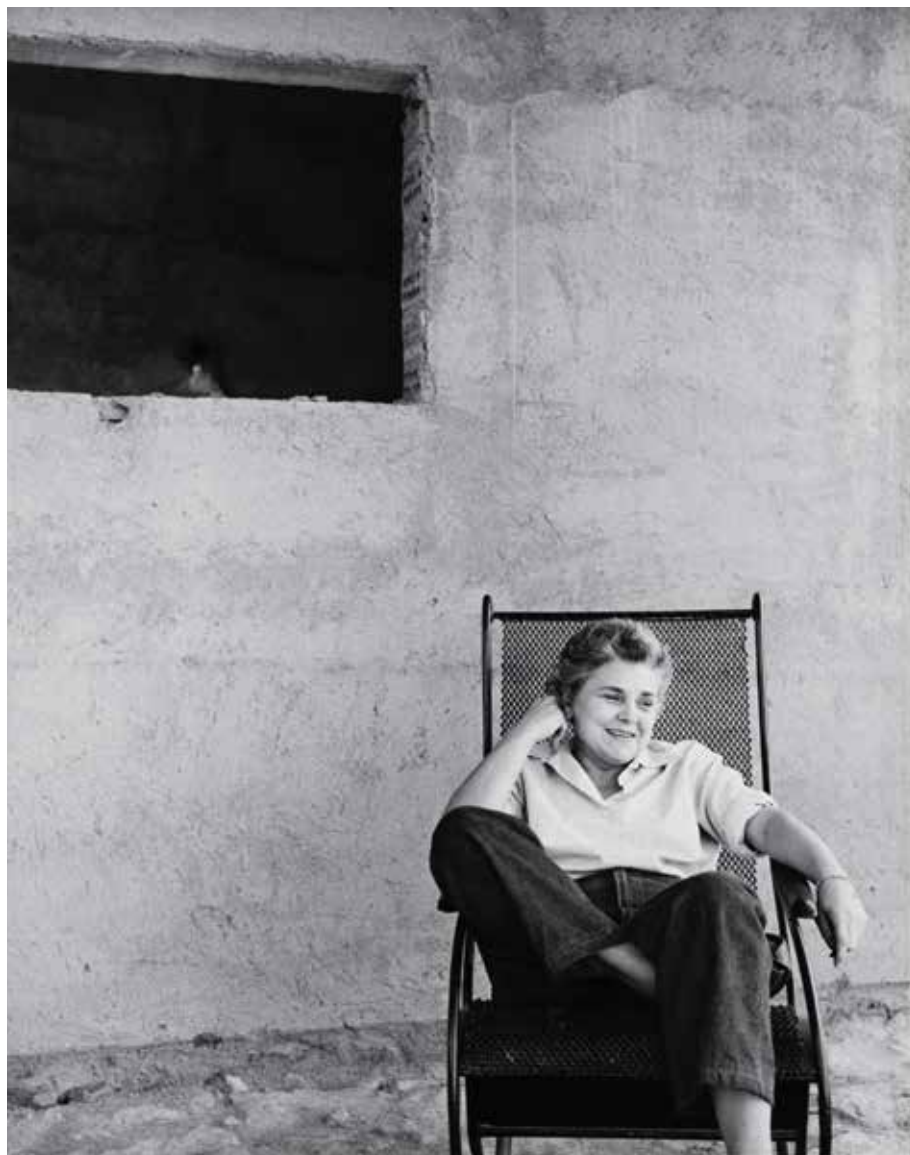
Bishop is a poet who holds the reader at arm's length, the better to communicate what really matters. And this reticence, as often happens, has provoked an intense desire for intimacy on the part of many readers.

Indeed, right now there may be no American poet more beloved than Bishop. In the 1970s, it was Lowell—with his stormy personal life, political commitments, and vivid public persona—who was the star poet at Harvard and beyond. Forty years later, there is no doubt that Bishop is the more famous of the two. Though it may be too much for Marshall to say that Lowell is "comparatively forgotten," Bishop is the one today's students wish they had the chance to study with.

This feeling of attachment, even possessiveness, is what animates Marshall's biography, for both good and ill. "I was falling in love, too, with the Elizabeth Bishop I began to know in her letters and manuscript drafts and snapshots," Marshall writes when she describes her work on the book. Loving your subject is surely better than hating her, as many biographers seem to end up doing; but in literature as in life, love is not the emotion most conducive to clarity or understanding.

This is especially true with a subject like Bishop, who had such complicated feelings about intimacy—a legacy of her tragic, nearly ruinous childhood. She was born to a prosperous couple in Massachusetts in 1911, but her father died before she was a year old, and just a few years later her mother was committed to an insane asylum. A small trust fund ensured that Bishop would never be destitute—and spared her the need to work for much of her adult life—but she spent her childhood being bounced from relative to relative, between Nova Scotia and the Boston suburbs. Marshall sheds new light on this formative period in the poet's life, thanks to the discovery of a group of letters that was unavailable to previous scholars. In one letter, Bishop wrote to her psychoanalyst about having been abused by her uncle, who on one occasion dangled her by her hair out of a second-story window.

No wonder Bishop was so glad to escape to school, and then to Vassar, where she made close friends and fell in (unrequited) love with her roommate, Margaret Miller. By the time she graduated, she knew her ambition was to be a poet; but in a sense, she suffered from the lack of obstacles in her way. Dylan Thomas once observed that a poet can only write poetry for two hours a day, and the rest of the time he must either work or get into trouble. Bishop, like Thomas, ended up filling much of the empty time with alcohol. After all, she had no family ties, no need to earn a living, no reason to



Elizabeth Bishop: the poet at ease, in 1954

Marshall writes with most psychological insight about the last 15 years of Bishop's life.

live here rather than there. This weightlessness is one explanation for the central role that travel would play in Bishop's imagination, as early as her 1935 poem "The Map":

The names of seashore towns run
out to sea,
the names of cities cross the neighboring mountains
—the printer here experiencing the same excitement
as when emotion too far exceeds its cause.

Marshall does not dramatically revise our sense of the outline of Bishop's biography. She lived in New York, then in Key West with her wealthy classmate Louise Crane, and then, starting in 1952, in Brazil, where she met the great love of her life, the aristocratic Lota de Macedo Soares. Marshall uses the surviving correspondence to shed light on the collapse of that relationship in the mid 1960s—in large part because of Bishop's alcoholism, which took a terrible

toll on both women. In general, Marshall writes with most detail and psychological insight about the last 15 years of Bishop's life, before her death in 1979. This is due to the nature of the surviving papers, and also the availability of witnesses to interview. But beyond Bishop's romantic relationships, there is little incident to report, since she led a private life centered on the most private of acts, writing poems.

Marshall's relationship to Bishop as a subject is complicated by the fact that she was once her student. We know this because she has decided to alternate sections of narrative about Bishop's life with sections of autobiographical reminiscence, describing her own emotions and difficulties as a young woman in the mid 1970s. In particular, she writes about an episode, trivial in itself but clearly of great importance to her, in which she submitted a poem to Bishop which she had previously workshoped in another class. Since this was against Bishop's

policy, she lowered Marshall's grade. To Marshall, this seemed like a terrible thing: "a feeling of shame, edged with anger,...burned so that I couldn't think," she writes. (In the end, Marshall stopped writing poetry, turning instead to a very successful career as a biographer; in 2014 she received the Pulitzer Prize for her life of Margaret Fuller.)

It is not clear what this material is doing in the book, except to establish Marshall's long-standing investment in her subject. But the illusion of intimacy that Marshall creates—and reinforces by referring to her subject always by her first name, as though Bishop were her and our friend—does not help us understand the poet any better. In a sense, too, the lack of interest the reader feels in Marshall's youthful difficulties undermines the interest of Bishop's travails, as well. It is not the little dramas of life that make a poet great, but what she makes out of them; and this is what biography can never explain. ▽

Contributing editor Adam Kirsch '97 is the author, most recently, of *The People and the Books: 18 Classics of Jewish Literature*.

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Shannon Liss-Riordan

ALUMNI

Labor Litigator

Shannon Liss-Riordan defends the “whole social fabric of employment.”

by MARINA BOLOTNIKOVA

IN A Hartford, Connecticut, courtroom last fall, Shannon Liss-Riordan '90, J.D. '96, was trying to prove that Ocean State Job Lot, a New England retail chain, illegally withheld overtime pay from its assistant managers. Eligibility for overtime, she asserted, depends on a straightforward set of legal tests, including how much time workers spend on management relative to non-management tasks, and how much they earn relative to non-exempt employees. Her clients, 25 assistant managers, had reported performing significant amounts of manual labor—unloading merchandise from trucks, stocking shelves—with no possibility of earning overtime for working more than 40 hours a week. Why hadn't Ocean State Job Lot applied the right criteria in classifying them? she asked executive Richard Portno during the cross-examination. “You're a company that brought in \$600 million in revenue last year. You can afford to

hire a lawyer to explain these things to you.”

Wage-theft cases are routine for Liss-Riordan. In 2015, she convinced a federal appeals court that Dunkin' Donuts managers could prove that they're eligible for overtime if their duties aren't primarily managerial. The Ocean State Job Lot case ended in a second mistrial; afterward, the jurors told her that one holdout juror refused to side with the workers. Liss-Riordan settled the case on behalf of 300 assistant managers. Fast-food and retail managers “are making pretty low wages, but because they're on salary, the company can work them as many hours as they want,” she says during an interview at the Boston office of Lichten & Liss-Riordan, P.C., the plaintiffs' employment-law practice she co-founded in 2009.

Since then, she has successfully sued national corporate giants like Starbucks and Marriott, as well as local and regional companies: she's taken on “just about all the

strip clubs in Massachusetts,” for defining exotic dancers as independent contractors, rather than employees, as if they were running their own businesses. She has also sued the Harvard Club of Boston and the Harvard Faculty Club for withholding tip payments from wait staff, arguing that the tips had to be disbursed to employees under state law. (Both cases were settled.) Currently, she's representing a massage therapist at the University's Center for Wellness, who she believes is misclassified as an independent contractor.

FOR LISS-RIORDAN and law partner Harold Lichten, the bigger-picture strategy is to find “legal issues that seem very important,” he says, and then “do everything we can to find cases and develop that area of the law.” Worker misclassification has been a particular focus for Liss-Riordan—a concern shared not just by fellow labor advocates. The U.S. Department of Labor has reported that “The misclassification of employees as independent contractors presents one of the most serious problems facing affected workers, employers, and the entire economy.”

During a period of severe income inequality and increased participation in a so-called sharing economy that lacks traditional job benefits or protections, her efforts to clarify and expand the rights of workers have gained her a public profile. Through her 2013 suit against the ride-sharing company Uber, the highest valued start-up in the world, she's helped shape the debate over whether the sharing economy benefits workers by giving them maximum flexibility, or leaves them vulnerable to the vagaries of the market.

One of her favorite cases involved Coverall, a national cleaning company. “There's a whole host of these cleaning companies,” she explains, “that ‘sell’ cleaning jobs to workers, who are most often immigrant workers, who...pay thousands of dollars for these cleaning jobs. The companies try to get away with it by calling them ‘franchises.’... [The workers are] really paying for the right

to scrub toilets in office buildings. It's heart-breaking." The Massachusetts Supreme Judicial Court agreed with Liss-Riordan that it was illegal to make someone pay to work. The resulting settlement yielded payments to several hundred workers, transferred the cleaning accounts to them, and, most important, forced Coverall to stop operating in Massachusetts.

Liss-Riordan's class-action suits often extract multimillion-dollar settlements from companies, producing payments for unsuspecting workers. Her firm takes one-third of the award as attorney fees. Class-action lawyers sometimes have a reputation for milking cases for financial gain—an image, she says, that's stirred up in part by corporations. "We're often mailing checks to people who had no idea that their rights were being violated," she retorts, "and their lives are turned around."

Bringing cases like these is becoming more difficult. More companies are inserting "arbitration clauses" into employment contracts, prohibiting workers from bringing grievances to court. "Companies try to keep disputes out of the public arena and in private arbitration, and by doing that they shield themselves from class-action litigation and from public view," Liss-Riordan says. ("Arbitration Everywhere, Stacking the Deck of Justice," a three-part *New York Times* investigation into the practice published in the fall of 2015, concluded that such clauses have "essentially disabled consumer challenges to practices like predatory lending, wage theft, and discrimination.") The U.S. Supreme Court has sanctioned the use of class-action bans in contracts, which infuriates Liss-Riordan: the justices are "saying they don't really want [labor] laws enforced."

In her Uber suit, Liss-Riordan argued that the company had misclassified its drivers as independent contractors, making them responsible for their own business expenses, like gas and car maintenance, and ineligible for protections like a minimum wage or healthcare. But first, she had to get past Uber's own arbitration clause, persuading California federal judge Edward Chen to rule in June 2015 that the clause was unenforceable. That cleared the way for Chen to certify a class of nearly 240,000 Uber drivers—the majority of the company's drivers in California. Then, Liss-Riordan decided against going to trial, instead negotiating a massive settlement of \$84 million, or \$100 million if the company ever

went public, on behalf of 325,000 Uber drivers in California and another 60,000 in Massachusetts. The central question of whether Uber drivers were rightfully employees or freelancers remained unanswered.

What Silicon Valley libertarians view as a revolution in work—workers get to be their own micro-entrepreneurs, without any of the hassle of *employment*—Liss-Riordan views as a scam to steal wages. Uber argues that it lets drivers set their own schedules, she says, but a lot of workers get to choose their hours—that doesn't mean they aren't employees. Uber also sets drivers' rates and performance standards, and relies on their labor for its income—all qualities of a managed labor force.

After the Uber deal, Liss-Riordan faced public scorn from some of the drivers covered by the settlement, and from onlooking lawyers, who called it a cash-grab that sold out the interests of workers. Liss-Riordan responded by cutting her firm's share of

"Companies try to keep disputes out of the public arena and in private arbitration, and by doing that they shield themselves from class-action litigation and from public view."

the settlement by about half, to \$10 million. Asked about the allegations, she says: "The \$100 million number was so big it just encouraged a bunch of lawyers who wanted to get a piece of the action to jump on it and try to scuttle it." She skates over the suggestion that there's a trade-off between settling and seeing the case through to trial: "Getting a fair settlement puts money in people's pockets now, without having to worry about who's going to be the next appointee to the Supreme Court." Ultimately, Liss-Riordan chose to settle because she wasn't sure she could win a trial, and she says it was a "monumental effort" just to get Uber's arbitration clause dismissed.

The settlement, however, was rejected last August by Chen, who argued it wasn't "fair, adequate, and reasonable." And then, in a separate decision, the Ninth Circuit Court of Appeals reversed Chen's earlier ruling that Uber's arbitration clause was unenforceable.

CHEN'S REJECTION marked a big loss for Liss-Riordan, tactically and financially. She

still hopes to convince the courts that arbitration clauses violate the National Labor Relations Act and says, if pressed, that she is prepared to file thousands of arbitration claims on behalf of Uber drivers. "What's going to happen now in this case is really uncertain," she says. "Whether we'll be able to hold together that class and see anything like \$100 million again is a big question mark." The dollar figure represented almost as much money as she'd negotiated in *all* of the settlements throughout her career. And the opprobrium cast by her critics struck a nerve for Liss-Riordan, who views herself as a lifelong advocate for workers.

As an undergraduate, she studied psychology and was interested in issues involving women in science; she was drawn to labor law only after college, while working on women's-rights organizing with former U.S. representative Bella Abzug, a New York Democrat who was also a labor lawyer. In 1991, when Anita Hill testified that Clar-

ence Thomas, then in confirmation hearings for the U.S. Supreme Court, had sexually harassed her, Liss-Riordan watched the women of her generation become galvanized by issues of gender in the workplace. By the time she entered Harvard Law School (HLS) a few years later, she says, she knew she wanted to use law as a tool to advance social justice.

"I spent a lot of my time in law school being one of those public-interest-activist types," she remembers. In April 1995, in her regular, punchy column in the *Harvard Law Record*, she urged HLS to devote more funds to its low-income protection plan (LIPP), a loan-forgiveness program for students working in public-interest law: "LIPP should not just make possible low-paying work for students committed to public interest; it should encourage that route for those who have not made up their minds." She also poked fun at the view held by her peers that they needed to gain experience at a corporate-law firm: that's "by no means a mandatory stage in a lawyer's career." Her own trajectory makes the point: the first

time she set foot in a corporate firm, she jokes, was as a “practicing lawyer to take a deposition”—although more than once she’s faced off against fellow alumni who were representing corporations in court.

Liss-Riordan makes clear that her critiques of Harvard (and the recent lawsuits) are not “some sign that I don’t appreciate what I gained from my education there. By bringing these cases against Harvard, I have hoped to push the institution in the right direction, and also highlight the issues and how prevalent they are. I believe that, with its wealth and prestige, and tremendous resources, Harvard should be setting an example for other institutions.”

After law school, Liss-Riordan returned to her hometown, Houston, to clerk for

federal judge Nancy Atlas, for two years, before marrying Kevin Riordan ’90. (The couple live in Brookline, an affluent Boston suburb, with their three children.) She was on her honeymoon in Thailand when she interviewed, by phone, for a position at Pyle, Rome, Lichten & Ehrenberg, a Boston-based employee- and union-law firm. “We offered her the job on the spot,” Harold Lichten recalls—and she worked hard: “It wasn’t unusual for me to leave at six or seven at night and come back at eight or nine in the morning and she’d still be at her desk, not having left.”

Liss-Riordan distinguished herself early, with high-profile victories in employment discrimination cases, and in 2002 was named a “lawyer of the year” by *Massachusetts Lawyers*

Weekly. She and Lichten got along so well, they opened their own practice (it now employs nine other attorneys) and recently added a second office in San Francisco, the better to take on the app economy.

On that front, despite losing the Uber settlement, Liss-Riordan doesn’t sound discouraged. A \$27-million settlement from a similar lawsuit she brought against Lyft, another ride-sharing company, is nearing approval. Meanwhile, she is pursuing a federal complaint alleging that Uber’s star-rating system for drivers is racially biased. In order to be protected from discrimination under the Civil Rights Act, the drivers need to be employees (not contractors); Liss-Riordan hopes the Equal Employment Opportunity Commission will determine that’s what they are.

Corporations have always used arguments like Uber’s to depress wages, Liss-Riordan says. But the app economy frightens her. Because freelance services delivered on-demand through apps are relatively cheap, they have become indispensable to affluent urbanites. Everywhere in the San Francisco area, commuters take Uber to get to work and run errands. Both Uber and Lyft are working with the Massachusetts Bay Transit Authority to provide rides for people with disabilities; Lyft has also proposed supplementing late-night public transit. What if start-ups can convince the public to dispense with the notion of companies’ responsibilities to their workers and society? “If Uber is successful in re-writing laws,” she warns, “it’s not just going to be ride-sharing companies—it’s the whole social fabric of employment that’s at stake.” □

A Special Notice Regarding Harvard University’s 366th Commencement Exercises Thursday, May 25, 2017

TO ACCOMMODATE the increasing number of those wishing to attend Harvard University’s Commencement Exercises, the following guidelines are proposed to facilitate admission into Harvard Yard and Tercentenary Theatre:

- Degree candidates will receive a limited number of tickets to both the Morning Exercises and the Afternoon Program. Parents and guests of degree candidates *must* have tickets to enter Harvard Yard. Seating capacity is limited in Tercentenary Theatre. For details, visit the Commencement Office website (commencement.harvard.edu).

Note: A ticket allows admission into Harvard Yard, but does not guarantee a seat. Seats are available on a first-come basis and cannot be reserved in advance. The sale of Commencement tickets is strictly prohibited. Gates will open promptly at 6:45 A.M. on Commencement Day.

- Alumni may request a limited number of tickets on a first-come basis through the Harvard Alumni Association (alumni.harvard.edu/annualmeeting or by phone at 617-496-7001).

- Additional viewing is available in the Science Center and at most undergraduate Houses and graduate and professional schools. These locations provide seating, and admission tickets are not required in most cases. The Morning Exercises and Afternoon Program may also be viewed via live broadcast on Commencement Day through the harvard.edu webpage.

Commencement Day Schedule

Morning Exercises: These begin following the academic procession into Tercentenary Theatre. After the student orators’ speeches, the President, Provost, and Deans will confer degrees. The University Band and University Choir perform throughout the Exercises.

Diploma-Granting Ceremonies and Luncheons: Degree recipients, parents, and alumni return to their Houses, schools, or reunion luncheons, or may purchase tickets for boxed lunches at the Alumni Spread in Harvard Yard.

Afternoon Program: The Annual Meeting of the Harvard Alumni Association includes the Overseer and HAA director election results, presentation of the Harvard Medals, and remarks by Harvard president Drew Gilpin Faust and the Commencement speaker.

~The Harvard Commencement Office
and The Harvard Alumni Association

Overseer and Director Candidates

THIS SPRING, alumni can vote for five new Harvard Overseers and six new elected directors of the Harvard Alumni Association (HAA).

Ballots, mailed out by April 1, must be received (at the address indicated) by noon, Eastern Standard Time, on May 16 to be counted. Election results will be announced at the HAA’s annual meeting on May 25, on the afternoon of Commencement day. All holders of Harvard degrees, except Corporation members and officers of instruction and government, are entitled to vote for Overseer

candidates. The election for HAA directors is open to all Harvard degree-holders.

Candidates for Overseer may also be nominated by petition if they receive a prescribed number of signatures. (The deadline for all petitions was February 1.)

For Overseer (six-year term):

Paul L. Choi '86, J.D. '89, Chicago. Partner, Sidley Austin LLP.

Mariano-Florentino Cuéllar '93, San Francisco. Justice, Supreme Court of California.

Darienne B. Driver, Ed.M. '06, Ed.D. '14, Milwaukee. Superintendent, Milwaukee public schools.

Carla Harris '84, M.B.A. '87, New York City. Vice chair of wealth management and managing director, Morgan Stanley.

Lane MacDonald '88, Boston. President, FMR Diversified Investments.

Elizabeth D. Samet '91, West Point, New York. Professor of English, U.S. Military Academy.

Craig R. Stapleton '67, M.B.A. '70, Greenwich, Connecticut. Senior adviser, Stone Point Capital.

Leslie P. Tolbert '73, Ph.D. '78, Tucson. Regents' professor, department of neuroscience, University of Arizona.

For elected director (three-year term):

Martha Abbruzzese Genieser '91, London. Director of philanthropy, Alan Howard Family Office.

Nathaniel Q. Belcher, M.Arch. '92, University Park, Pennsylvania. Professor of architecture, Stuckeman School of Architecture and Landscape Architecture, Pennsylvania State University.

Sangu Julius Delle '10, J.D.-M.B.A. '17, Accra, Ghana. Chairman and CEO, Golden Palm Investments Corporation; founder and president, cleanacwa.

Drew Engles '87, Akron, Ohio. Hand and microvascular surgeon, Akron Children's Hospital.

Sachin H. Jain '02, M.D. '06, M.B.A. '07, Cerritos, California. President and CEO, CareMore Health System.

Elena Hahn Kiam '85, New York City. Co-owner and creative director, K-FIVE LLC d/b/a lia sophia; co-owner and non-executive marketing director, Cirrus Healthcare Products.

Ronald P. Mitchell '92, M.B.A. '97, New York City. CEO, Virgil Inc.

Paola A. Peacock Friedrich, S.M. '06, Ed.L.D. '14, Marblehead, Massachusetts.

Human capital management consultant, AchieveMission.

Leslie Miller Saiontz '81, Miami. Founder and president, Achieve Miami.

HAA Clubs and SIGs Awards

THESE HONORS, awarded at the HAA board of directors' winter meeting in February, celebrate both alumni and groups that have organized exceptional programs.

Larry Kahn '83, of Orlando. An active member of the Harvard Club of Central Florida for more than 20 years, Kahn stepped up as president to revitalize the club, which is now thriving with new members, monthly events, and a healthy budget. In addition, he co-chairs and has expanded the Early College Awareness Program, and promotes its worth among other club leaders. Kahn is also an HAA Board member, having served as co-chair of the Alumni Leadership Conference and two terms as director for Eastern Florida and the Islands.

Walter L. Keats '67, of Chicago. Keats joined the Harvard Club of Chicago (HCC) right after graduation and has since served as the administrative backbone of the organization. For the past three decades, he has overseen the induction of newly elected club presidents, officers, and directors. And as an unofficial club historian, he collected archival material for a 198-page book published for its 150th anniversary.

Accey Welch '53, of Concord, Massachusetts. For more than two decades, Welch worked with classmates, and then with a cohort of other Radcliffe alumnae, to found and lead the Committee for the Equality of Women at Harvard (CEWH), a group dedicated to increasing the number of tenured women faculty. In 2013, she envisioned and created the Alumnae/Alumni Network for Harvard Women (ANHW), an intergenerational SIG that now has chapters in Boston, New York, and Washington, D.C. Welch and ANHW also played an integral role in developing Harvard's inaugural Women's Weekend last fall.

The Harvard Club of Australia, founded in 1961, has long fostered a strong relationship with the University. Its scholarship programs fund nine postgraduate students at Harvard schools and programs each year, and its Australia-Harvard Fellowship reinforces existing academic networks at mid-career and senior levels. The club also offers social, intellectual,

HM Explore More

For more online-only articles on alumni, see:

"Fake News" and the Post-Trump Media

Boston Review editor Joshua Cohen, Ph.D. '79, on the role of the media after Trump.

harvardmag.com/fakenews-17



The Joy of Mentoring—From Thousands of Miles Away

Stephen Ball, J.D. '10, was mentoring a bright high-school student in New York. Then he got a job offer in California.

harvardmag.com/mentoring-17

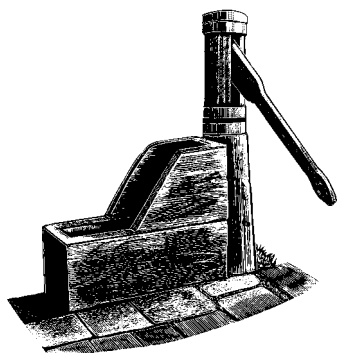


and cultural events for alumni, as well as a mentoring program. As a result of such efforts, club membership has more than doubled to 500 within the last seven years.

Approaching its 125th anniversary, the Harvard Club of Seattle has also successfully increased membership to about 500 alumni, and doubled the number of club events to 45 per year. Public-service activities have been expanded, and now include participation in the Early College Awareness program and a public-service internship program for College students during January term (as well as a career-focused mentoring program).

Established during the 2011-2012 academic year, the First Generation Harvard Alumni (FGHA) aims to improve the experience of students who are the first generation of their families to attend a four-year American university. FGHA has drawn about 400 members, as well as an active board of more than 30 people. It has also developed a groundbreaking mentoring program, on- and off-campus events for students and alumni, and worked with Harvard's Office of Career Services to organize career panels. The SIG has also supported undergraduates in establishing the First Generation Student Union.

Entrances and Exits



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

ROSLYN BRAEMAN PAYNE, M.B.A. '70, writes recalling her experience of collecting a degree from Harvard Business School only to find, 200 miles to the southwest, that she could not crack the women-excluding Harvard Club of New York. "A group of us (including one Harvard Law graduate) began conversations with the club"; that route having proved unavailing, the group moved to "file a complaint" with the state's human-rights commission—while some law students filed a federal court complaint, represented pro bono by Jed S. Rakoff, J.D. '69 (subsequently a U.S. district court judge).

Reason (or pressure) having ultimately prevailed, the club modernized its thinking in 1973. Now Payne and co-combatants have memorialized that struggle in *A True Account of Women Gaining Full Membership in The Harvard Club of New York*. Its underlying facts compel reflection. When Ellen Marram, M.B.A. '70, went through the job-search process on campus, "One recruiter expressed puzzlement that a woman would even interview for a position in his company," asking her, "[W]hat kind of a job do you give a woman from the Harvard Business School?" (Hint: the kind

that prepared Marram to serve as a director of Ford, Eli Lilly, and the New York Times Company.) In January 1973, members voted by more than the required two-thirds margin to admit women. (An earlier poll fell 18 votes short.) Payne has been a member since then—and Marram's directorships extend to the board of the Club itself.



THE ACCOUNTS of the protest that greeted U.S. defense secretary Robert McNamara, M.B.A. '39, during his Vietnam-era visit to campus in 1966 (November-December 2016, page 80) elicited *Rashomon*-like takes on the events of the day (see the letters, January-February, page 6). Steve Young '67 provided the fullest version (available online). Barney Frank '61, K '71, J.D. '77, asked him to be a decoy for McNamara; when that ruse failed to divert members of Students for a Democratic Society, McNamara decided to engage with the crowd. Young narrates:

I had no Plan B to get out of the situation with grace for all parties.

Then...a rushing wall of blue came up at McNamara and me and pushed us off the car's roof toward Leverett House. We were...

rushed, surrounded by three or four policemen, into the lobby of the Mill Street door....

[T]he sergeant commanding turned to me and asked, "What do we do now?"

I thought, "You're asking me? I'm just a civilian and student to boot."

Behind him was a door opening to stairs leading down to the tunnels running from

the central kitchen to all [the] dining rooms....

I proposed...[taking] the secretary through the tunnels to the central kitchen in Kirkland House [where] a cab should meet him....

The sergeant...had no other idea. So I led [McNamara] and two Cambridge cops through the tunnels to the central kitchen.

When we got there, I found the door to the delivery dock and opened it slightly. No SDS students were in sight and I saw a taxi waiting....So I walked McNamara over to the taxi with the cops behind us....

He didn't ask my name and he didn't say thank you.



IN A much-divided nation, it's worth recalling that no ironclad rule dictates East or West Coast origins for professors. From the memorial minute for the late geophysicist Richard J. O'Connell, read to the Faculty of Arts and Sciences on December 6:

"Rick's path to Harvard and science was not linear. He was raised in Montana, where his paternal grandparents had emigrated... and his grandfather worked as a gold miner. His father was a successful cattle rancher and, for a time, sheriff of Lewis and Clark County. Rick's mother, a musician, raised her children during her husband's long absences and after he was seriously injured in a bull goring. In this challenging environment of hard work, high expectations, and encouragement, a home life that began in the county jail and was centered on the ranch that he returned to throughout his life, Rick developed an abiding affection for America's wide-open spaces and the values of those who live within them."

And he did so despite the contaminating influences of an education at Caltech—and tenure in Cambridge.

~PRIMUS VI



(Above) The Harvard Business School student photographs of Roslyn Braeman Payne (left) and Ellen Marram

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COLOSSAL BLOSSOM

(continued from page 47)

host/parasite connections are potentially an important means by which horizontal gene transfers can occur. And it showed that the physiological invisibility of *Rafflesia* within the host is echoed in its genes: the host and parasite share so much biology that the boundaries between them have become blurred.

Intriguingly, some of the transferred genes swap in at precisely the same genetic location as in the parasite's own genome. "One of the ideas that we are exploring," says Davis, "is whether maintaining these transferred genes might provide a fitness advantage for the parasite. Might these transfers be providing a kind of genetic camouflage so that the host can't mount an immune response to the parasite that lives within it?" This kind of science has broader relevance, he points out, not only to plants, but to people. How do the pathogens that infect the human body "maintain themselves and survive?" These are the kinds of questions that, by chance, the study of *Rafflesia* may help elucidate. The plant's strategy might

Why are *Rafflesia* the biggest flowers in the world? That is a puzzle he'd hoped to solve since his postdoctoral days...

be an evolutionary dead end—or it could be a powerful, alternative means by which *Rafflesia* maintain their fitness: by co-opting the genes of their hosts.

THESE ARE LARGE QUESTIONS. For now, Davis shares the answer to a simpler one: Why are *Rafflesia* the biggest flowers in the world? That is a puzzle he'd hoped to solve since his postdoctoral days at the Michigan Society of Fellows. These plants place within the spurge family, whose members produce *tiny* flowers, just one to three millimeters in diameter. Wondering how they could have evolved to become so immense, he and Elena Kramer, Bussey professor of organismic and evolutionary biology, and other colleagues decided to tackle the question using floral developmental genetics.

Under their tutelage, Luke Nikolov '07, one of Davis's former doctoral students (now at



KEN WURDACK

the Max Planck Institute for Plant Breeding Research), began probing the relationships of the various parts of these strange flowers to the blossoms of other plants. He injected dyes into the plants as they grew, recording what genes were expressed during various stages of development to distinguish one floral organ from another. In some species, he found, the central floral chamber is formed from a novel inner organ called the ring meristem. But in the largest flowers, the chamber is made

Charles Davis with *Rafflesia tuan-mudae* in 2007, Gunung Gading National Park, Borneo.

from organs that once were petals. The inescapable conclusion, says Davis, is that extreme gigantism evolved in this tiny family of parasitic plants not once, but twice. Why? He suspects that in the first evolution, with the ring meristem-derived chamber, the plant had become as large as it could using that part of the flower. Only by "re-architecting" gigantism a second time, using petal structures, could the plant achieve the spans of three feet or more seen in species such as *R. arnoldii*.

But what advantage lies in enormous size? What extraordinary selection pressure could drive gigantism twice? Davis suspects that the answer may lie with the carrion fly. The literature on the biology of these insects is robust, he points out: "Carrion flies seek out the largest carcass they can find." ▢

Jonathan Shaw '89 is managing editor of this magazine.

A WORKABLE DEMOCRACY

(continued from page 54)

he wrote in *Glossip v. Gross*, in 2015, in which he called for a fundamental review of capital punishment and said he thinks it is "highly likely" that the punishment is unconstitutional: "In this world, or at least in this Nation, we can have a death penalty that at least arguably serves legitimate penological purposes or we can have a procedural system that at least arguably seeks reliability and fairness in the death penalty's application. We cannot have both. And that simple fact, demonstrated convincingly over the past 40 years, strongly supports the claim that the death penalty violates the Eighth Amendment"—the Constitution's ban on cruel and unusual punishment.

The death penalty remains among the most divisive subjects on the Supreme Court's docket. Yet underlying his dissent is the optimistic idea underlying most of his dissents: What sets the majority and the dissenters apart is not a disagreement about basic principles—it is that the justices in the majority are not looking as carefully as they should at the most important facts. If they did, they would see the case as he does. They would join his opinion. ▢

Lincoln Caplan '72, J.D. '76, a contributing editor, is visiting lecturer in law at Yale Law School and the author of six books about the law, most recently *American Justice 2016: The Political Supreme Court*. He wrote about the Court as a New Yorker staff writer and as a member of the editorial board of *The New York Times*. His recent Harvard Magazine articles have covered Professor Cass Sunstein (January-February 2015), Judge Richard Posner (January-February 2016), and sibling scholars Carol Steiker and Jordan Steiker and their scholarship on the death penalty (November-December 2016).

In addition to Justice Breyer, LL.B. '64, and his wife, Joanna Breyer, M.Ed. '75, Ph.D. '83, alumni mentioned in this article include past and present Supreme Court chief justices William H. Rehnquist, A.M. '50, and John G. Roberts Jr. '76, J.D. '79, and past and present associate justices Oliver Wendell Holmes Jr., A.B. 1861, LL.B. '66, LL.D. '95, Ruth Bader Ginsburg, L. '59, LL.D. '11, Elena Kagan, J.D. '86, Anthony M. Kennedy, LL.B. '61, and Antonin G. Scalia, LL.B. '60. Also mentioned are: Charles R. Breyer '63; Justin Driver, J.D. '04; Garrett Epps '72; Richard Fallon, J.D. '80; Learned Hand, A.B. 1893, A.M. '94, LL.B. '96, LL.D. 1939; Henry M. Hart Jr. '26, LL.B. '30, S.J.D. '31; Edward M. Kennedy '54, LL.D. '08; Albert M. Sacks, LL.B. '48; David A. Strauss '73, J.D. '78; Cass Sunstein '75, J.D. '78; and Donald Turner, Ph.D. '47.

The Polaroid Moment

Entrepreneurship, as it developed



AS THE BUSINESS SCHOOL fosters budding entrepreneurs along Western Avenue, an older-fashioned way of innovating—and the birth of Kendall Square in Cambridge as a world center of doing so—are on display at Baker Library, in an exhibition on Edwin H. Land '30, S.D. '57, and the Polaroid Corporation (through late July).

Displaying for the first time objects drawn from the company's archive of 1.5 million items donated in 2006, "At the Intersection of Science and Art" (a title taken from Land himself) abounds in surprises. There are the early discoveries of polarizing filters—and their use in hilarious adjustable sunglasses and even automobile-shaped spectacles for viewing a 3-D Polaroid movie about Chrysler's assembly line, made for the 1939 World's Fair. There are wartime inventions like the Vectograph: 3-D images used for aerial reconnaissance. And then the "Aha!" moment, when Land's daughter, on a family vacation in Santa Fe in 1943, asked, in his words, "why she could not see at once the picture I had just taken of her.... Within the hour, the camera, the film, and the physical chemistry became so clear to me" that he discussed it all with the company's patent attorney.

The resulting work leading to the debut of the instant-photo system is the exhibition's culmination. Who would have expected that some of the foundational drawings were by Maxfield Parrish Jr. (the son of the painter who set the standard for kitsch)?

There are also intriguing hints at Boston's evolution. A photo of the absurdly handsome Land at



Main and Osborn Streets in Cambridge, taken in 1946, shows what a backwater the area was then: no suggestion of today's stratospheric rents and kale-salad joints. And a (manually) typed September 2, 1948, memorandum from R.T. Kriebel to Polaroid superiors, with Land cc'd, on where to launch the new camera system, disses the home-town team: "Boston is notoriously slow in response to new products." (The savvy marketers chose the Friday after Thanksgiving to unveil their handiwork, at the Jordan Marsh



department store; all 56 units sold.)

Amid a billion smart phones and a zillion selfies, Polaroid's miracle cameras are mostly history. But Polaroid's spirit lives on. "The small company of the future," Land wrote in 1937, "will be as much a research organization as it is a manufacturing company...." Technology drove the firm, but Land was clear that "the aesthetic purpose" of his photography system "is to make available a new medium of expression...to individuals who have an artistic interest in the world around them." He himself enrolled at Harvard in the fall of 1926, left after that term to work on polarizing materials, returned in 1929, and then left in 1932 to form a company with a physics instructor, anticipating Bill Gates '77, I.L.D. '07, and Mark Zuckerberg '06. Given Land's aesthetic drive, exhibition curator Melissa Banta draws an analogy to another famous dropout: "Land was a real model for entrepreneurs like Steve Jobs," who were interested in "creating elegantly designed products that served human needs."

To learn more, see the exhibition website at www.library.hbs.edu/hc/polaroid.

—JOHN S. ROSENBERG



RADCLIFFE
DAY
2017



GWEN IFILL AND JUDY WOODRUFF

On **Radcliffe Day, Friday, May 26, 2017**, we will honor the excellence, integrity, and impact of **Gwen Ifill** and **Judy Woodruff**. Please join us in Radcliffe Yard or via the live webcast to recognize two Radcliffe medalists, one historic partnership, and the immeasurable importance of great journalism.

The Radcliffe Day lunch includes remembrances of Gwen Ifill—whose medal will be accepted by Michele Norris—a conversation between Judy Woodruff and Walter Isaacson, and personal commentary from David Brooks. The morning panel, “(Un)Truths and Their Consequences,” features moderator Ann Marie Lipinski and panelists Danielle Allen, A’Lelia Bundles, E.J. Dionne, and Peggy Noonan.



RADCLIFFE INSTITUTE
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Learn more about the event, obtaining tickets, and viewing the webcast: www.radcliffe.harvard.edu.

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BECAUSE TOMORROW HAPPENS IN THE BLINK OF AN EYE



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