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# HARVARD

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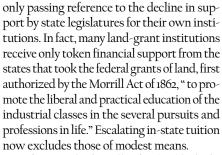
On the cover: Photograph by Robert Adam Mayer

# Cambridge 02138

Educational effectiveness, final clubs, enduring inequalities

### UNEQUAL UNIVERSITIES

I APPRECIATED the useful selections from Charles T. Clotfelder's extensive research on inequality in American higher education ("The College Chasm: How market forces have made American higher education radically unequal," November-December 2017, page 50). I was surprised, nonetheless, to find



Unfortunately, the will to fund public higher education has withered under the force of a spurious notion that higher education is strictly an individual business investment, whether the degree leads to portfolio management or teaching English. Consider however: a progressive tax on those who actually earn more could fund the next college generation more generously. We all benefit from public investment in an educated citizenry.

The glory of the land-grant college was that it combined practical training and a liberal education. Farmers, engineers, scientists, accountants, and future professionals in all spheres learned skills that served their communities and with their professors took part in the advancement of knowledge. General education requirements introduced students to a broad range of learning in literature, history, philosophy, the arts, and the social sciences, as well as what we now call STEM



courses. Students gained a larger vision of what they might contribute as responsible citizens enjoying an enhanced quality of life.

I doubt that any appreciable progress will be made in reducing inequality until we recover this generous vision, which once made America great.

THOMAS M. ADAMS '63 Washington, D.C.

#### **EDUCATIONAL EFFECTIVENESS**

In response to "Measuring an Education," President Drew Faust's latest View From Mass Hall (November-December 2017, page 5): As a former faculty member, academic dean, and college president, I have never seen a better understanding of education than that of Coleman Barks, the brilliant translator of Rumi, in his interview with Bill Moyers.

"I believe it doesn't really matter what the teacher talks about. You remember all those classes you took in college? It doesn't matter what was said. What we remember are a few presences. What was being taught was the presence of a few people, and there was a connection between the presence and us. But we sat there and took notes and thought we were studying the French Revolution or duck embryos or something, when what we were really learning about was coming through the teacher."

THOMAS B. COBURN, M.T.S. '69, Ph.D. ' 77

Warren, R.I.

I VERY MUCH appreciated President Faust's letter. Education may be defined as the creative use of knowledge. At the interface of knowledge and creativity is that experience known as education. This definition pro-

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# Education as a Civil Right

N NOVEMBER, I had the distinct privilege of addressing some 600 Harvard alumni at the Smithsonian Institution's National Museum of African American History and Culture. The event—the sixteenth in the Harvard Campaign's "Your Harvard" series that has taken me from Boston to Berlin to Dallas to Singapore, and concludes in February in San Francisco—included remarks from a personal hero of mine, Congressman John Lewis, LL.D. '12, who in many ways willed the museum into existence with his lifetime commitment to civil rights and remembrance in America. A panel of Harvard faculty explored the evening's theme: education as the civil-rights issue of our time.

The museum was the perfect backdrop for this conversation. Its exhibition halls surround visitors with testaments to the liberating power of learning and the hard-fought struggle by African slaves and their offspring to gain access to education: the tattered bible that Nat Turner carried into a slave rebellion, prompting laws that made it a crime to teach enslaved persons to read; the hymnal Harriet Tubman cherished, though it is believed she could neither read nor write; the Celtics jersey of basketball legend Bill Russell, LL.D. '07, whose most prized childhood possession was his library card to the Oakland Public Library.

Frederick Douglass once wrote, "Some men know the value of education by having it. I know its value by not having it." Education liberates the mind, even when the body is oppressed. It gives us perspective as a passport to other times, other places, and other points of view, as well as a way to learn about ourselves and to reimagine our lives in ways that alter us forever.

More than sixty years after the Brown v. Board of Education decision, access to education is still not equal. I remember listening to that decision announced on the radio when I was seven—I glimpsed then the aspiration toward justice through education that would come to shape my life.

Beginning with its first scholarships in 1643, Harvard has gradually opened its community to one individual and one group after another—widening its gates through financial aid, through its invention of merit-based testing and its merger with Radcliffe, through outreach and advocacy for first-generation, low-income, and undocumented applicants—all in an effort to attract students of talent and promise from every background, across the United States and across the world.

Throughout our history, these efforts have advanced educational attainment at Harvard. Today, 15 percent of our students are the first in their family to attend college, and more than half of Harvard College students receive need-based financial aid. More than 20 percent of students' families are not expected to contribute to costs associated with tuition or room and board for their child's



education, and we make sure every graduate of the College can leave without taking on debt.

Advancing the critical role of education in promoting service, achieving social justice, and widening opportunity is fundamental to Harvard and the heart of the Campaign we launched in 2013. Now more than ever these efforts are essential. In a nation where violence and threats are increasingly replacing rational discourse and exchange, we must champion equal access to education and foster discourse where facts and truth matter.

The National Museum of African American History and Culture powerfully reminds us that education and freedom are inseparably intertwined. The hope and reality of what education can unlock make it incumbent on us to redouble our efforts to open the gates, and close the gap.

> Sincerely, Clew Faust

vides a job description for a faculty person, who must transfer knowledge (the easy part, largely requiring memorization) and inspire creativity (the hard part).

When I started graduate work at Harvard, I came out of an undergraduate experience that was largely focused on informa-

tion transfer. The wonderful thing about my graduate experience was that the faculty inspired creativity. Their inspiration led me to experience a very successful academic career.

My concern with the use of student evaluations is that they may reflect more about information transfer than creativity. For ex-

#### 7 WARE STREET

### Square Deals?

A SPECTRE is haunting Harvard Square the spectre of commercial real-estate development. Karl Marx aside, the Square faces significant change. The new owners of the wedge-shaped building at the intersection of Brattle and John F. Kennedy Streets, aimed at the Red Line subway station, envision a high-end retail mall. The trusts in control of the low-rise buildings across Brattle, and down the block (beyond the Coop's annex), are now selling them; the latter site can accommodate multistory redevelopment. And a plan has been advanced to replace the closed cinema on Church Street. (Details and renderings appear at harvardmag.com/hsq-redev-17.)

All this promised change reflects the normal workings of the market, within the confines of Cambridge's zoning and other regulations. But combined with retailing's migration from family-owned stores to chains and online shopping, and Harvard's global tourist appeal, much more than physical renewal seems at stake.

The Square's identity resides to a large degree in its unique establishments—name your favorite. Running such places is never easy: the hours are long, the competition fierce, the costs of doing business high. It has been dismaying to see the face of the Square presented upon exiting the T station progressively homogenized by bank branches (deadening to passersby, especially at night), a chain drugstore, and cookie-cutter food outlets. The higher rents that come with (needed) physical redevelopment and catering to new kinds of customers accelerate that process.

Does the University have a stake in this transformation? Certainly, it benefits from an inviting, distinctive front door. Yale, which suffered from New Haven's woes in the past, has invested heavily in the retailing along Broadway (L.L. Bean will be a groundfloor tenant in a new graduate-student residence), and its renovated art museums have attracted throngs, revitalizing much of Cha-

pel Street. MIT has pursued fresh retail and restaurant strategies in Kendall Square, enlivening a former office and laboratory desert. These long-term, presumably expensive, efforts suggest that it is productive to hold on to something good rather than try to reclaim streetscapes and urban fabrics that were made, or have become, uninviting.

Under other circumstances, Harvard might inject itself into the refashioning of the Square. Given its appetite for office space, for instance, it might become the redeveloper of some of those expandable Brattle Street properties, taking the upper floors and subsidizing the new retail footage to attract unique tenants. Or the endowment could evaluate the opportunities for its real-estate portfolio—for office development, a new hotel, or something else again with some consideration of the home team. (And one would hope that such an intervention would yield something more appealing than the blank, blocky mass of One Brattle Square.)

Neither seems likely right now. The University's major local investment is the refashioning of Holyoke Center into the Smith Campus Center—with eight food vendors: a significant addition to the Square's roster, but also more competition for existing establishments. Administrators have also been focused on the development plans for Allston—particularly the design of the "enterprise research campus" about to reach Boston regulators for review (see harvard—magazine.com/erc-17.) And the endowment, in the midst of substantial restructuring, has been selling real-estate assets.

So the likeliest scenario is commercially focused redevelopment, resulting in a place that is less distinctive and more homogenous than the Harvard Square of yore. A first-world problem, to be sure, and surely no different from outcomes elsewhere. Whether the result pleases, brings on waves of nostalgia, or induces gnashing of teeth, the market will work its magic, and some new Square will emerge from the current dealings. —John S. Rosenberg, Editor

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ample, I taught organic chemistry, which at that time was required of the "pre-med" students. I always had some questions on my exams that required creative use of organic chemistry. A student who had difficulty in dealing with this, and was failing the course, came to me saying, "I know all this organic chemistry crap but I get clutched up on your exams." I responded, "I am glad you are failing this course because this means you will not get into medical school, and if you get 'clutched up' on something as simple as organic chemistry, I don't want you to be a doctor." The student's response was, "Oh, but I am not going to be a surgeon, just a general practitioner." How would one weigh this student's evaluation?

> LEON MANDELL, Ph.D. '51 Temple Terrace, Fla.

#### FINAL CLUBS...

I WRITE to you [President Drew Faust] today, having just received my latest Harvard Magazine, wherein I was quite shocked to find many letters attacking you and the administration for moving against final clubs at Harvard.

Hooray for you, President Faust! These clubs are a stain on the University and the most distasteful aspect of my entire educational life. As a sophomore transfer student in January 1996, I was so taken aback by these sexist relics, I made an appointment my first week at Harvard with the dean of students (Epps) and the dean of coeducation, who directed me to the Lyman Common Room in Radcliffe Yard for milk and cookies. Shortly thereafter, I personally refused to attend the clubs after I was physically barred from using the front door at the Fly by a male Harvard student. What still burns my britches is that I was more sophisticated, witty, and charming than most of their members, yet I was barred from throwing my hat in the ring by virtue of my sex.

What would all these apologists say if these clubs refused admission to black people? Latinos? Gays? Come on. President Faust, you are on the right side of history! Please stay the course! Even snobby, oldworld Princeton's eating clubs were forced to go co-ed nearly three decades ago.

It has always been my wish that the clubs welcome women to apply as fullfledged members. If they'd rather fall on their swords than do the right thing, so be it. ELIZABETH TOPP '98 New York City

I READ with interest and frustration the letters in the November-December magazine about single-sex (finals) clubs. The vehement defense of them from those who enjoyed, or whose children enjoyed, their benefits misses an important point: the clubs' exclusivity is not based on any visible merit aside from social connections. As a public high-school graduate from Kentucky, I would have welcomed a place to feel I belonged on campus besides my House (then North House, a rather democratic one). I watched peers from East and West Coast big cities, from prep and private schools, going to the Bee and who knows where else; I hardly knew the clubs' names.

I found the issue to be further fascinating, since one of the featured articles was about the challenges of making a Harvard education work for low-income and first-generation students. If this is a legitimate goal, as I believe it should be, then the fact that clubs are single-gender hardly touches the basic point;

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#### LETTERS

nearly all these clubs are functionally singleclass: rich. The education available at Harvard is only part of the point; we all understand that much of what makes a Harvard education valuable is the connections. Access to connections at Harvard is fundamentally inequitable.

Until I can see that Harvard takes this goal seriously—making the education truly accessible for all qualified students—my donations will continue to go to Berea College, where I teach, and where every single student is low-income, and none pay tuition.

Nancy Gift '93 Berea, Ky.

#### ...AND FIRST-GENERATION STUDENTS

I SUGGEST you ponder the irony of the "Strategically Speaking" column (November-December 2017, page 7), lamenting the loss of faith of many Americans in higher education, appearing near the article on supposedly special problems of first-generation college students ("Mastering the 'Hidden Curriculum," page 18) and "The College Chasm" (Forum, page 50). In my view, the condescension and victim orientation reflected in the latter two go a long way toward explaining the former.

The search for victims, and endless demands for accommodations for the supposedly victimized group, that many Americans see increasingly emanating from the academy, which are typified by these articles, contribute to a loss of faith in the value of higher education.

In every generation, there are many first-generation and low-income college and university students. In prior generations, this was accepted as part of the American Dream, as such persons and their families worked to improve their lot. Even without the special programs discussed here, many (perhaps most) succeeded in doing so. Suggesting that there is something unusual about today's generation which necessitates the sort of programs described does them no favors and causes further skepticism about the motivation of our learned class on the part of the citizenry at large.

Similarly, the Forum's apparently lamenting that colleges and universities come in many flavors is insulting to many. Among other things, the constant references to the supposedly inadequate education being provided at the University of South Carolina is devoid of support, other than the spurious references to grades and test scores. There is no discussion of how graduates of that institution are faring in life, let alone while they

are in school. The barely unspoken premise that one can only obtain a top-flight education at a supposedly top-tier school insults those who did just that at other schools, which they attended for many reasons, such as a desire to be close to family or access a particular program. One does not need an Ivy League education to be a pragmatic, honorable, empathetic person—which goes a long way toward success in life.

Even if there is some merit to the Forum author's premise that there are vast differences in the quality of schools, this ignores the fact that inequality is inherent in many situations and that the most successful among us are willing and able to work to overcome such inequality. It also overlooks the fact that not everyone is well suited for the "best" schools and that, as is true in so many fields, a diversity of offerings is optimal. As Garrison Keillor can tell us, not everyone can be above average or have the best of everything.

Those who wish to muster more support for higher education would do well to accept that inequality of outcomes is inherent in a free society and acknowledge the greater importance of equality of opportunity and the many mechanisms we have to facilitate the latter.

Martin B. Robins, J.D. '80 Barrington Hills, Ill.

#### WRITERS, SEEN HOLISTICALLY

I was glad to see a tutor viewing her student as a whole emotional and writing person, a unity rather than a stack of divisible Lego blocks (The Undergraduate, "Writing, Blocked," November-December 2017, page 36). In the training I'm completing, in a body-mind relearning field, we also are taught to acknowledge the whole unitary person—a tensegritive and not a compressive model. This has consequences.

In my field, students' strong emotions can surface. We could even retraumatize a person. As part of our training we learn about the hidden impact of well-intended efforts in our field's past, and even hear a presentation from

#### SPEAK UP, PLEASE

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a psychotherapist to learn what not to do.

As a private writing tutor, I know I can reinjure my student, too, if not as severely, or subtly discourage them. I'm sure that I have done so at times, unwittingly—faces have told me what words have not. I wish I had had more training to address this, as well as to be better able to take care of my own emotional-writer self. I would love the Writing Center to offer its tutors such support, to integrate the emotional literacy with the craft.

I found the most impactful part of the article to be the author's transparency about her own intense feelings in relationship to writing. This sharing acknowledges the whole person in the reader, and removes a wall, rather than dividing us into separable teacherstudent blocks. It would be good to see more of this integration in academia—and, further, more integrated acknowledgment that we are body along with emotion and words.

> Joshua Myrvaagnes '01 Somerville, Mass.

#### **LEGAL SERVICES**

"THE JUSTICE GAP," by Lincoln Caplan (November-October 2017, page 61), shines a timely spotlight on the enormous gap between the number of poor people who face unlawful eviction, domestic violence, consumer fraud, and other civil legal problems and the number of those people who have an attorney to advocate for them in their time of legal crisis.

As members of the WilmerHale Legal Services Center (LSC) of Harvard Law School (HLS), we salute you for tackling this topic and its various complexities. At the same time, readers may have been left with a misimpression about the LSC. Our work does not focus on "adequate access to justice," however defined. From our founding in 1979 by the visionary professor Gary Bellow, we have dedicated our work to impassioned, innovative, community-based lawyering for people who cannot afford representation; and teaching and mentoring clinical law students to become zealous, ethical advocates. To be sure, we also embrace and teach students about non-litigation tools such as policy advocacy, community legal-education workshops, and the enhanced use of law-related technologies.

As the thousands of HLS students who have passed through the LSC's doors can attest, these tools complement—not displaceour primary and enduring focus: direct legal services for the most vulnerable community members



to achieve the fullest measure of justice. Bellow's legacy lives on and is stronger than ever. Daniel L. Nagin

Vice dean for experiential and clinical education Faculty director, WilmerHale Legal Services Center & Veterans Legal Clinic

TOBY MERRILL Lecturer on law Cambridge

#### **ERRATA**

We regret misspelling the last name of Thomas Ehrlich, LL.B. '59, in "The Justice

The caption for the photograph on page 83 (Alumni, "This Land Was Made For...," November-December 2017) incorrectly identifies the rock formations behind Bill Hedden as the Six Shooter Peaks. They are mesas. The peaks were visible in a different image of Hedden that did not appear in the article.

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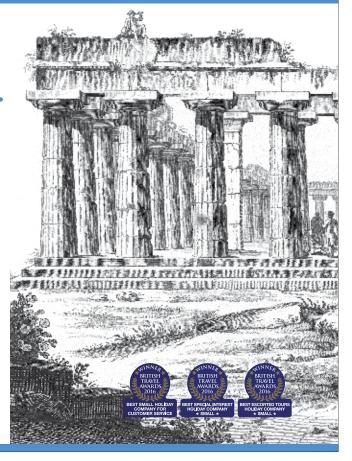
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#### DOMESTIC ENERGY, FOREIGN AFFAIRS

# A Geopolitical Windfall?

Y MOST MEASURES, the Trump administration's first year in office has been turbulent, but Meghan O'Sullivan, Kirkpatrick professor of the practice of international affairs at the Kennedy School, says the United States nevertheless occupies a unique position of potential global strength. The former deputy national security adviser for Iraq and Afghanistan under President George W. Bush says that America's dependence on foreign

oil has been a dangerous strategic vulnerability since the Nixon administration. But the situation has changed, she argues in her new book, Windfall: How the New Energy Abundance Upends Global Politics and Strengthens America's Power. If the United States succeeds in "harnessing" today's energy boom instead of foolishly adopting isolationist policies in pursuit of total energy independence, it has the chance to elevate its leadership position around the world, forge new international

partnerships, and above all, further its economic and political interests.

The current boom is largely caused by extraction technologies that make it easier and cheaper to produce natural gas and oil, as well as new technology for liquefying natural gas cheaply. (Because natural gas is much less expensive to transport when liquefied, this once local commodity has now reached the vast global energy marketplace.) One of those evolving extraction technologies is fracking. O'Sullivan admits the method is environmentally fraught, but says, "I think our country is trying to find the right balance between being responsible toward the environment while still reaping the economic and strategic benefits that come with being

one of the world's largest producers of oil and natural gas."

She advocates a "Goldilocks solution" to frackingone that does not involve so many regulations as to make production unattractive, but that does have sufficient regulations to mitigate the most serious environmental concerns. Decisions about whether and how to extract domestic energy supplies, she argues, should weigh not only environmental concerns, but also geopolitical relationships. "Energy is a huge benefit to the United States, and it's not only economic, as something we feel at the pump or when paying to heat homes. We also need to factor in strategic interests."

One of those strategic interests relates to Russia. The energy boom's lower prices have created a huge fiscal challenge



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for the oil- and natural-gas-driven Russian economy. O'Sullivan connects Vladimir Putin's increasingly aggressive foreign policy directly to that mounting challenge. "From a U.S policymaking perspective, we need to be prepared for Russia to try to compensate for these kinds of losses," she says. "The natural-gas boom means Europe now has other options for meeting its energy needs if Russia becomes too difficult to deal with." This means that while Russia will remain a big exporter of energy to Europe, it will struggle to politicize this trade as it has in the past. As a result, Putin has had to adhere to European Union laws and regulations that he previously had the leverage to avoid.

As for China, another key foreign-policy interest, O'Sullivan argues that the United States should capitalize on every opportunity for the two countries to work together constructively. "This new energy environment has led a lot of countries to question how committed the United States is going to be to Middle Eastern stability going forward," she notes, and this worries the Chinese. They are increasingly dependent on external sources of energy, from the

Middle East in particular, just as the United States is becoming more self-sufficient. For this reason there is "an opportunity for us to have a conversation about how to work together toward a common end: achieving greater stability in a critical part of the world."

Although much of Windfall focuses on the potential benefits if America realizes its position of energy strength, the book is quick to warn against what O'Sullivan calls the country's dangerous "unrequited love" for achieving total energy independence. In order to become truly independent and essentially function as an island economy, the United States would have to enforce dramatic isolationist and protectionist policies that she considers inefficient, costly, and ultimately counter to the

nation's best interest. She points to the aftermath of Hurricane Harvey as an instance when being connected to international markets was of critical importance: "When our refining capacity went down on the Gulf Coast, there were some hiccups, but pretty soon after, we just started importing from other sources. Being connected to global markets allows for us to be resilient."

If Americans are able to look beyond their enduring obsession with energy independence and use the energy boom to further the country's international power, she declares, the benefits could be exponentially higher.

MEGHAN O'SULLIVAN E-MAIL: meghan\_osullivan@hks.harvard.edu

#### PALEO-EPIDEMIOLOGICAL INVESTIGATIONS

# The New Rub on Knee Pain

AN WALLACE HAS TRAVELED across the country examining skeletons in the basements of museums and in the backroom closets of medical institutes. He's seen 2,576 of them, to be exact, driven by an interest in just one thing: their knees. One-fifth of the U. S. population suffers from knee os-



teoarthritis (OA), a painful and debilitating disease caused by the femur grinding against the tibia. But Wallace, a postdoctoral fellow in human evolutionary biology, and his adviser, Lerner professor of biological sciences Daniel Lieberman, wondered if OA had always been so common. Although clinicians who treat the disease have noted an increase in the number of cases, which now typically end with knee replacement, no one had tried to quantify the prevalence of the disease across centuries.

The two researchers realized they could study this public-health problem using an approach dubbed "paleo-epidemiology." The bone-on-bone rubbing that occurs at the end stage of the disease, when all the cartilage is gone, leaves a glass-like polish on bone surfaces that is unmistakable, Wallace explains. It's unambiguous and easy to measure accurately, and is what he was looking for in the skeletons he studied. But the magnitude of what he found was unexpected. By comparing skeletal evidence from the prehistoric and industrial eras to that from the postindustrial era, and carefully controlling for differences in the way the skeletons from the various periods were collected, Lieberman and Wallace found that the prevalence of the disease had *more than* doubled since World War II.

"This is not a trivial change," Lieberman says. "A doubling that fast can only be caused by a change in environment. And that means that if we can identify what

An osteoarthritic knee, the polished femur clearly visible, from a 600-year-old skeleton housed in the Peabody Museum.

those environmental shifts are, we can figure out ways to prevent the disease."

The common belief, he explains, is that knee osteoarthritis is unpreventable. Clinicians who treat OA typically cite cumulative wear and tear on the knee joint as a principal cause of the disease. As people, on average, live longer and weigh more than in the past, the thinking goes, the prevalence of OA naturally increases. But the new research shows this is wrong.

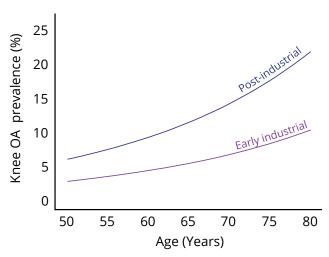
By controlling for factors such as age and body mass index (BMI)—matching physically and demographically similar individuals across the industrial and post-industrial eras—the researchers were able to eliminate both increased longevity and obesity as causes of the spike they discovered. That doesn't mean obesity is not a factor: "It can increase your risk of osteoarthritis considerably," explains Wallace. But obesity can't explain the recent, sudden spread of the disease.

The level of OA didn't shift, essentially, for thousands of years, Lieberman points out, among either prehistoric Native American hunter-gatherers and farmers, or industrialera workers. The spike came suddenly, in the postindustrial period, and the pattern of injury changed, as well.

Trauma to the knee joint often leads to OA. "People fall off a cliff, get kicked by a horse, snap their ACL, or get a meniscal tear," says Lieberman, and these insults can increase the risk of OA as much as eightfold. "Most of the people we studied in earlier populations who had OA had it in one knee"—a hallmark of the traumatic case. "What's happening increasingly today," he continues, "which we showed in a 2017 paper in Proceedings of the National Academy of Sciences, is that more and more people are getting the disease in both knees. That suggests there is something else going

Lieberman and Wallace don't know what that "something" might be, but are testing the hypothesis that physical inactivity, which increased with the mid-twentieth-century shift to servicesector employment

in the American economy, is an important factor. That theory might seem counterintuitive for a disease thought to be caused by wear and tear, but some potential mechanisms by which exercise protects joints are known: physical activity promotes the growth of hydrophilic proteins that store water and thus lubricate joints, Lieberman notes, and there is evidence that within cartilage, such activity affects the production and turnover of collagen. (Exercised animals, for example, have more cartilage in their joints, older data show.) Furthermore, exercise strengthens muscles, protecting joints from overloading at moments of strain, and also lowers inflammation. To test this, Lieberman and Wallace are currently running a controlled experiment in the lab



After controlling for gender, ethnicity, and body mass index, the data clearly show an increased prevalence of knee osteoarthritis in post-industrial populations at all ages.

SOURCE: STEVEN WORTHINGTON/HARVARD INSTITUTE FOR QUANTITATIVE SOCIAL SCIENCE

with guinea pigs, comparing rates of OA between active and inactive animals.

Underlying the research, Lieberman explains, is a suspicion that OA is a case of human physiology being partly maladapted to modern environments. "We're looking at osteoarthris as a mismatch disease," he says, "and trying to figure out how an evolutionary perspective leads to different hypotheses than would a purely clinical perspective." ∼JONATHAN SHAW

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**HEALTHCARE MONOPOLY** 

# A New Challenge for Antitrust

N THE last few years, a new type of financial consolidation has caught the attention of antitrust regulators. Institutional investors—big companies like Fidelity and BlackRock—today own 70 percent of publicly traded stocks, according to some estimates, which means that one big investor could own significant shares of the companies that nominally compete within the same industry. Two 2016 studies found that this relationship may have had a causal effect that produced higher prices for consumers

in the airline and banking industries. Now a new analysis published in Health Affairs finds that this type of informal consolidation among investor-owners has nearly doubled in at least one sector of the healthcare industry during the last decade. Between 2005 and 2015, the percentage of acute-care hospitals that share significant ownership with post-acute facilities and hospices grew from 24.6 to 48.9 percent.

Earlier studies of consolidation in healthcare, says lead author Annabelle Fowler, a

Ph.D. candidate in health policy at Harvard Medical School (HMS), have focused on formal mergers—what people typically imagine when they think of companies exercising monopoly power. "We wanted to peel away that layer and see who the underlying investors are, and [ask if] there are any ties across these sectors that we might not be able to immediately see, but that might have implications for the care people receive." The team focused on common ownership of acute and post-acute facilities, Fowler explains, because post-acute care is the source of a lot of variation in Medicare spending; financial consolidation, the researchers speculated, might be a potential explanation.

The group (including co-authors David Grabowski and Haiden Huskamp, professors of health care policy at HMS, and Robert Gambrel and David Stevenson of Vanderbilt) pulled their data from the Provider Enrollment, Chain, and Ownership System (PECOS): a database of every medical provider in Medicare, with granular information about every investor owning a 5 percent or greater share in each provider (though it doesn't show how large a share the investors hold—only that it's at least 5 percent). "What's really novel about this paper is the use of this dataset," Fowler notes.

The team considered only institutional investors in their analysis. They then looked at the financial links between healthcare providers within the same region—a hospital and a skilled nursing facility (a type of long-term, post-acute-care provider) in a single state, for example. An investor with shares in a hospital in Boston and skilled-nursing facilities in Seattle, for example, wouldn't count as common ownership under their rubric.

The findings are striking: the percentage of hospitals with a link to other healthcare

facilities (including acute-care hospitals, skilled-nursing facilities, home health agencies, long-term care hospitals, inpatient rehabilitation facilities, and hospice agencies) via a common owner almost doubled during the study period. That might be in part because the share of healthcare providers with any corporate investor increased significantly during the same period (from just over one-quarter to more than one-half), across each of the six types of facilities studied. In other words, corporate investors' share of providers has simply increased over time, just as it has in the economy overall. "Our results have potential implications for how we think about competition between and across sectors," says Grabowski. "If an investor jointly owns several hospitals within a market, are these hospitals really competing with one another on cost and quality?"

What might this mean for regulators? Common investor ownership, unlike formal mergers, is not currently regulated, but can be deemed illegal if the behavior of investors is construed to produce collusion among different companies. The analysis doesn't claim a causal relationship between common ownership and the quality or cost of healthcare, but financial consolidation across the industry can create anti-competitive incentives that are bad for patients.



For more articles on Harvard research, go online:

### A New Cast for the Semitic Museum

A replica Dream Stele, part of Egyptologist Peter Der Manuelian's efforts to revitalize the Semitic Museum



harvardmag.com/stele-I7

### Gut Health May Begin in the Mouth

Oral bacteria can lodge in the gut and trigger inflammatory bowel conditions. harvardmag.com/oralhealth-17

"If you're a particularly expensive patient," Fowler explains, "then the hospital might [have an incentive to] refer you to a skilled-nursing facility that's *not* under common ownership, because you're sort of a burden. If you're a patient with less risk, then a doctor might have incentive to refer you to a provider within the same common ownership."

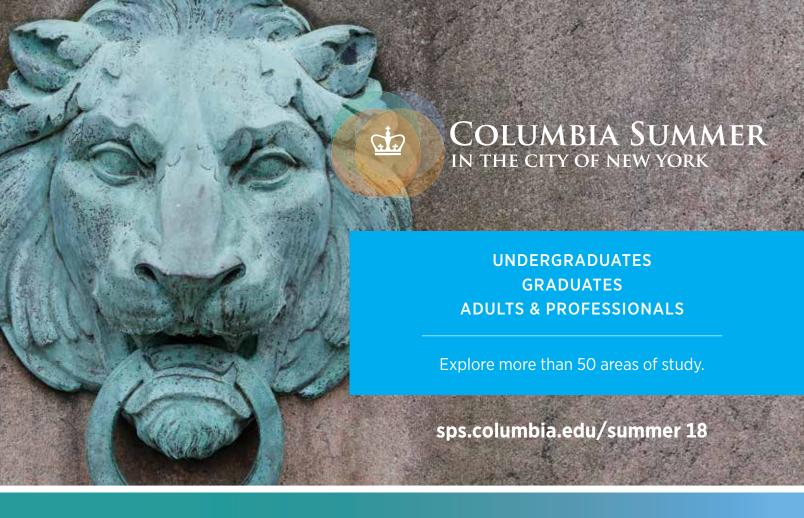
It's not clear how a financial link between

healthcare facilities could translate into this sort of decisionmaking at the level of individual doctors. But investors can influence companies in many ways-for example, through their votes on business decisions at shareholder meetings. Much work remains to be done, by academics as well as regulators, on the dynamic between investors and industry competition. At a minimum, Fowler and Grabowski suggest that there is a need for more transparency in these relationships; mandated disclosure of large-scale common investors could be the best next step. That would benefit not just researchers and regulators, Grabowski says, but patients as well. Both groups, presumably, would want to know if there is any investor linkage among healthcare providers.

∼MARINA BOLOTNIKOVA

ANNABELLE FOWLER WEBSITE: scholar.harvard.edu/afowler/home





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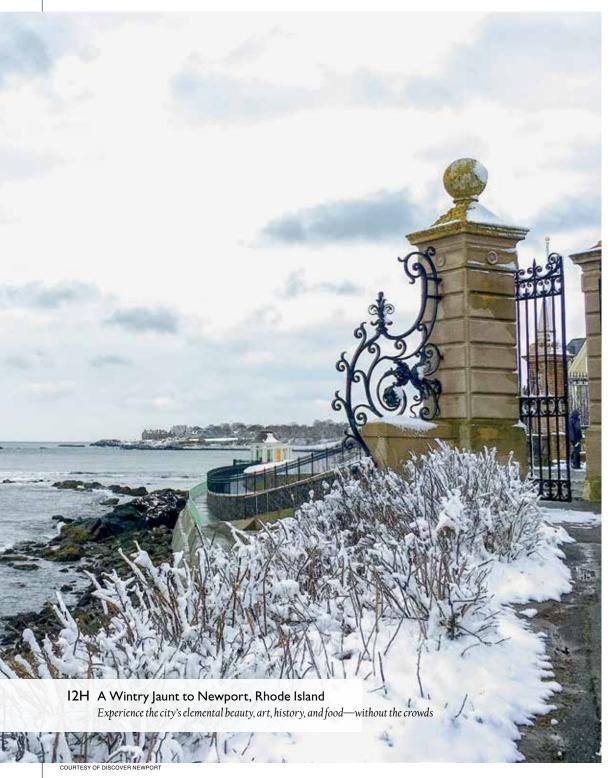
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12B Extracurriculars Events on and off campus in January and February



12D Nigerian Women Speak Out A.R.T. hosts "HEAR WORD!"



12F Tastemakers Exploring the Museum of Bad Art, in Somerville



12L Chinatown Chow Shōjō's Asian-fusion tapas with a Western kick

# Extracurriculars

Events on and off campus during January and February

#### **EXHIBITIONS & EVENTS**

Houghton Library www.houghton75.org

Rethinking Enlightenment: Forgotten Women Writers of Eighteenth Cen-

tury France includes Olympe de Gouges, author of the "Declaration of the Rights of Woman and the Female Citizen," and Émilie du Châtelet, translator of Isaac Newton's *Principia*. (Opens January 5) **Landmarks:** 

From left: An image of diverse microbe colonies obtained from cabbage and grown in the lab, at the Harvard Museum of Natural History; Sumac with Snail, by James Reis, at the Arnold Arboretum; East Coker (2013), by abstract artist Joe Bradley, at the Rose Art Museum

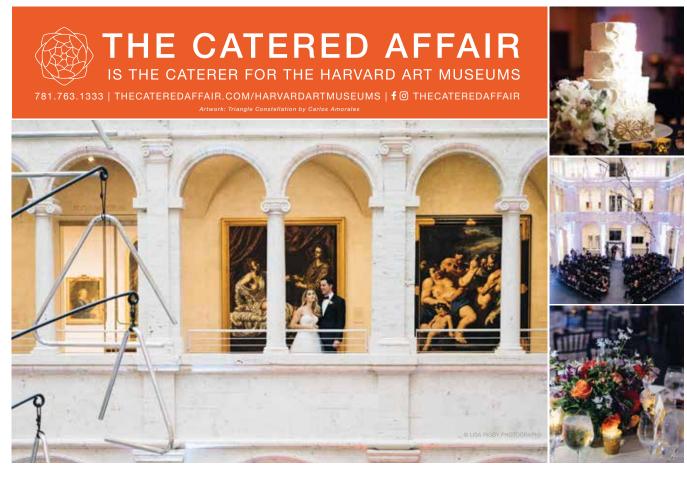
Maps as Literary Illustration features more than 60 documents depicting imagined places, from Thomas More's Utopia to the Stillness supercontinent in N.K. Jemisin's *The Fifth Season*. (Opens January 16)

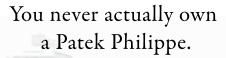
FROM LEFT; COURTESY OF THE HARVARD MUSEUM OF NATURAL HISTORY; JAMES REIS/COURTESY OF THE ARNOLD ARBORETUM JOE BRADLEY/COURTESY OF THE ROSE ART MUSEUM

### Carpenter Center for the Visual Arts https://carpenter.center

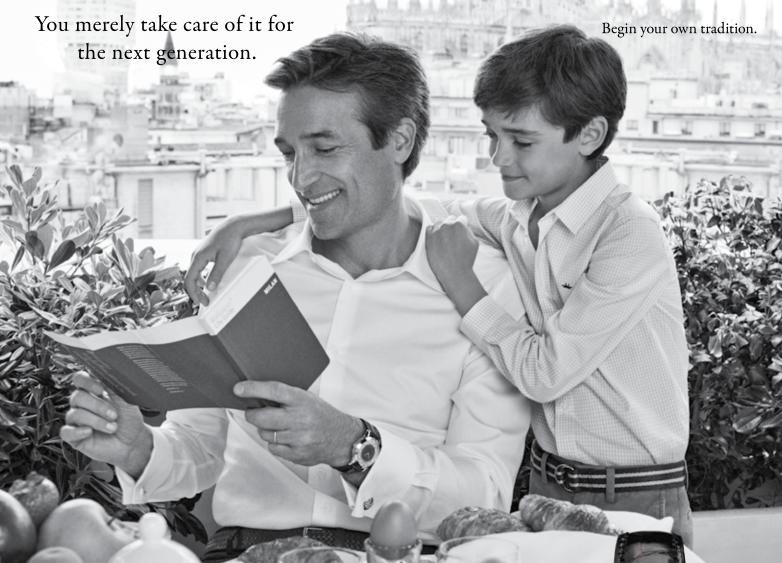
Artist, writer, and filmmaker **Renée Green's** two-year residency—spent exploring perceptions of time, space, and place—culminates with a display of video installations and screen prints.

(Opens February I)









### **LUX BOND & GREEN**

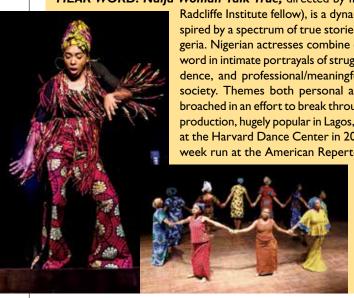
JEWELERS SINCE 1898

416 Boylston Street · BOSTON 617-266-4747

Pioneering new-media artist and filmmaker Lynn Hershman Leeson—known for exploring privacy, identity, and human relationships with machines in the context of the digital age—discusses her work. (February 8) The lecture occurs in conjunction with Art in the Age of the Internet: 1989 to Today, opening at the Institute of Contemporary Art on February 7.

### STAFF PICK: Nigerian Women Speak Out

HEAR WORD! Naija Woman Talk True, directed by Ifeoma Fafunwa (a current



Radcliffe Institute fellow), is a dynamic performance piece inspired by a spectrum of true stories about women across Nigeria. Nigerian actresses combine dances, songs, and spoken word in intimate portrayals of struggles—for dignity, independence, and professional/meaningful engagement in African society. Themes both personal and universal are candidly broached in an effort to break through a culture of silence. The production, hugely popular in Lagos, had its American premiere at the Harvard Dance Center in 2016, and returns for a twoweek run at the American Repertory Theater. Fafunwa also

> discusses "Who Would Choose to Be LGBT and Nigerian!?" at the institute's Knafel Center on February 7.

Loeb Drama Center January 26-February 11

#### Harvard Art Museums

www.harvardartmuseums.org

Inventur—Art in Germany, 1943-55 highlights more than 170 works, many never before seen outside Germany, that were created during a time of collective cultural reckoning. (Opens February 9)

#### Harvard Museum of Natural History www.hmnh.harvard.edu

Microbial Life: A Universe at the Edge of Sight takes visitors on a multimedia journey from a typical kitchen countertop into the fascinating lives of earth's first inhabitants. (Opens February 17)

#### Rose Art Museum

www.brandeis.edu/rose

The exhibit Joe Bradley features two dozen works by the New York-based artist (who was born in Maine), from impromptu drawings to bold, layered abstract paintings. (Opens January 28)

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#### **LECTURES**

#### Wide Angle: The Norton Lectures on Cinema

www.mahindrahumanities.fas.harvard.edu Three legendary filmmakers are slated to speak at Sanders Theatre: Frederick Wiseman (January 29 and February 5); Agnès Varda (February 26-27); and Wim Wenders (April 2 and April 9).

#### The Radcliffe Institute for **Advanced Study**

www.radcliffe.harvard.edu Physician Abdul El-Sayed, a candidate for governor in Michigan, discusses "The Epidemic of Poverty: The Government Imperative." (February 12)

"Casting—When Character Meets Appearance." Radcliffe Institute fellow Phillip Warnell talks about his research on the metrics of screen-based acting roles. (February 21)

#### **FILM**

#### Harvard Film Archive

www.hcl.harvard.edu/hfa

Norton Lectures in Cinema: Frederick Wiseman. The retrospective includes Titicut Follies, Primate, High School, and Near Death, a six-hour chronicle of the medical intensive care unit at Boston's Beth Israel Hospital. (January 19-February 18)

Kevin Jerome Everson—Cinema and the Practice of Everyday Life. The artist rebukes mainstream cinema's pat cultural depictions and insistence on action and melodrama. Screenings include: Tonsler Park, Erie, Company Line, Ninety-Three, and Ears, Nose, and Throat, a film that reflects on the 2010 murder of Everson's son. (February 2-26)

#### NATURE AND SCIENCE

#### The Arnold Arboretum

www.arboretum.harvard.edu Arboretum director William Friedman adresses the nuanced evolutionary ties between plants and the origins of human life in Replaying Life's Tape Through the Lens of Plants. (January 22)

Close and Closer: Photographs of the Arnold Arboretum by James Reis reveals studied layers of the wondrous landscape. (Opens February 9)

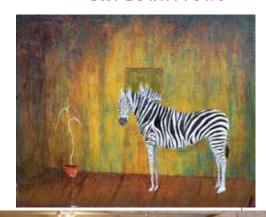
Events listings are also found at www. harvardmagazine.com.





# Renegade Tastemakers

A Somerville museum highlights art "so bad, it's good." by NELL PORTER BROWN







HIS WINTER, an exhibit of contemporary paintings in the basement of Davis Square's Somerville Theatre features animals. *Medusa Fries Fish*, by Florida artist Christine House, is clearly symbolic—but of what? A wild-haired lass in a slinky red dress stands with arms extended like pale noodles, bewitching (befriending?) a perky green fish, rendered in the Japanese Pokémon tradition, lying in a pan over roaring flames. Yet the improbable enchantress is herself transfixed by a mysterious squiggled spiral in the twilight sky.

Nearby is the evocative acrylic *Woman Riding Crustacean*. Here, an explanatory label suggests that the unknown artist might have been inspired by actress Debra Winger holding her own on "a mechanical bull in the 1980 film *Urban Cowboy*," even as the figure "appears to be a blow-up doll mounted atop a giant lobster" or "a study for a larger, hopefully more erotically realized, work."

On display through February 25, "MOBA Zoo" is the latest show culled from more than 700 works held by the Museum of Bad Art (MOBA). "We collect compelling pieces in which something has gone wrong in the execution or the concept," said MOBA's curator-in-chief Michael Frank. Typically,

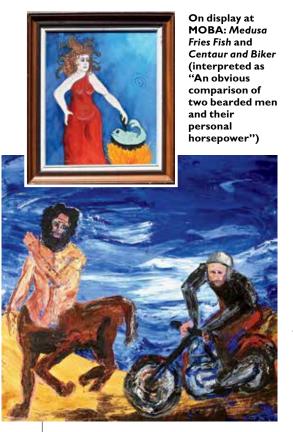
the works reflect either poor technique, or expertise painstakingly applied to produce hilariously overwrought results, or images that simply elicit a loud "Wow, what is that?"

"It's not kitsch," he emphasized. "But what is tongue-and-cheek...is that we're not mocking the artists, we're mocking the knitted eyebrows of the world of art criticism." In essence, MOBA legitimately questions what, or who, makes a piece of art "important"—the idea that the "right person" has to say, "This is good"—and it has a lot of fun in the process.

Michael Frank and Louise Sacco with the stylish doggie stars of Blue Tango (acquired from an Indiana thrift shop) at the Somerville museum. Other highlights of the collection: Woman Riding Crustacean, James (a doleful zebra), and the masterwork that inspired it all, Lucy in the Field with Flowers

IT ALL BEGAN in 1994 with Lucy in the Field with Flowers. Boston arts and antique dealer Scott Wilson acquired the portrait of a handsome grandmother, pensively poised under an aggressively yellow sky in a windswept meadow, from a Boston trash heap. He'd wanted to sell its frame, but upon seeing the painting, his pal Jerry Reilly objected, using a phrase that would be repeated with gusto through the years to come by those inducted into MOBA's guiding renegade spirit: "You can't do that! That's so bad, it's good." Reilly took the tribute to someone else's elder and hung it in his own West Roxbury home, said his sister, Louise Sacco, MOBA's current "permanent acting interim executive director," during a tour of the gallery.

Word spread of Reilly's masterpiece, and



others like it that he and Wilson and a few similarly inspired colleagues were soon scooping up from yard sales, thrift shops, and town dumps. But it wasn't until "a busload of seniors from Rhode Island pulled up on his little residential street and got out to come see these," Sacco said, "that we realized we had to do something bigger."

Eventually they opened MOBA's more or less permanent gallery in the Somerville Theatre, itself an historic, and beloved, place; satellite exhibit sites now exist in Brookline and Weymouth. All the locales are donated space, there's no paid MOBA staff, and admission is free. Donations and proceeds from the sale of postcards and a catalog pay for a telephone line, website, and storage of any art that can't fit into Frank's house.

People from all over the world submit photos of potential works, and sometimes just mail the works themselves to MOBA, Frank said, mostly because they've seen its Facebook page (which has 53,000 followers) or appreciate Frank's 28 curatorial talks (of varying educational and entertainment value) on YouTube.

Frank is picky. He accepts less than 25

percent of what's offered by others, and acquires most of the pieces himself through the region's thrift shops and other affordable venues. Garbage piles in May and June, when local college students are preparing to leave town, have yielded some real treasures. He also scouts around when traveling for his paid occupation, as a gig guitarist and as family entertainer Mike the Hatman. "I've been to Cuba a lot, and there's a strong strain of surreal imagery there," he said in a phone interview from his Boston living room. "So I recently picked up a piece, that I'm looking at here now, that's pretty damn bizarre." He guesses it's some sort of Welsh corgi, with no legs to speak of, in a rural landscape.

A backlog of artwork awaits cataloguing and what can be his lengthy interpretation process. That might involve Google name searches for any signed pieces (although most MOBA works are by unknown artists), as well as research to contextualize a given painting by identifying other art or events that might have inspired the work. Thus Mini-Marilyn En Pointe, in a show entitled "Dopple-hangers" at the Weymouth gallery, is a depiction of the American actress





and sex symbol. But what may initially resemble pigs' feet poking out from under her black dress are actually her own, attached to unseen knees bent as she's jumping up, smiling at the viewer. Frank knows this because the painting is clearly based on an image he found online by French photographer Philippe Halsman, who, in the 1950s, captured a series of famous people in mid air.

OVER THE YEARS, MOBA has had shows in New York City, Santa Fe, and Minneapolis,

as well as in Canada and Taiwan. "It was not my assumption that the irony of MOBA would translate" to Asia, Frank said, "but it seemed to be very successful, because the show was in Taipei and then moved to another city and was extended to six weeks." He's currently planning for a MOBA show in Tokyo next fall or winter.

MOBA's art is primarily representational. With abstract works, Sacco said, it's much harder to assess what artists intended to do, and if they succeeded: "To look at a Jackson

Pollock—if that reputation wasn't out there, if he wasn't a well-acknowledged genius—the first time we saw his painting, we'd say, 'Oh, someone spilled the paint—that's what went wrong."

What's often disconcerting in the MOBA collection is the steroidal level of symbolism. The exhibit "MOBA Zoo" features a 24-inch canvas titled *Liberty and Justice* that was donated in 2015. Frank's label reads: "Reminiscent of Judith clutching the head of Holofernes, teary-eyed Lady Liberty celebrates her victo-

# ALL IN A DAY: A Wintry Jaunt to Newport, Rhode Island

As winds whip off the Atlantic Ocean and waves crash along Newport's famous Cliff Walk outside, visitors on the "Beneath The Breakers" tour meander through the labyrinthine bowels of the Vanderbilt family's Gilded Age mansion.

The tour covers the development of modern electricity and plumbing, which ran throughout the five-story, 70-room Italian Renaissance-style palazzo. It also explores the hand-dug boiler room, where two massive units once burned as much as 250 tons of coal a year. "But these are summer homes, why did they need heat?" Raymond Roy, a guide with The Preservation Society of Newport County, asks, then explains: the 5,000 feet of water pipes snaking through 20 bathrooms could freeze. "From Octo-

ber I to May I, there were men working in the boiler room around the clock, even though the family wasn't here."

The depopulated winter season also offers contemporary Newport visitors a far quieter and often more intimate look at **The Breakers**, and at the three other estates owned and opened yearround by the preservation society: **The Elms, Marble House, and Rosecliff** (where "Pierre Cardin: 70 Years of Innovation" offers 42 original outfits from the designer's private archives through February 28). "We don't really want to grow a lot more in the summer, when the city is very, very crowded," says John G. Rodman, M.P.A. '93, director of

museum experience for the society's 11 properties, which draw more than one million admissions a year. "This allows people to see the homes in a different way."



A scene from Newport's dramatic Cliff Walk (above); billiards room at the Rosecliff mansion; The Breakers; a fetching Pierre Cardin original on display at Rosecliff

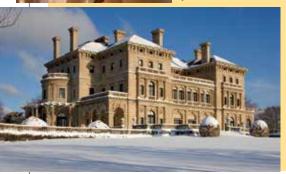
With those properties open, Rodman adds, more of the city's restaurants have added winter hours, especially in conjunction with the annual Newport Winter Fes-



tival (February 16-25). The event—packed with magic shows, concerts, and children's activities, along with fêtes featuring food and drinks—traditionally culminates in the popular polo exhibition on Easton Beach. Also open during the winter are the International Tennis Hall of Fame (worth a stop even if you're not an avid fan of the sport), and the Newport Art Museum, where the photography shows "Lissa Rivera: Beautiful Boy" and "Domestic Affairs: Domesticity, Identity, and the Home" open on January 20. Food and drinks abound. The lively Brick Alley Pub has terrific comfort fare, or try the funkier Salvation Café; for a more refined dining option, head to the stylish new Stoneacre Brasserie.

The summertime hubbub and pervasive wharf-side tourist trade can also overwhelm Newport's elemental natural beauty. If the weather holds, suit up and get out on the three-mile **Cliff Walk** and exult in the salty sprays and bracing chill of New England's iconic coastal clime.







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The poignant exchange in Blue Face-Green Pepper defies explanation.

ry over the enemy and hopes peace can return to the city. In other news, her jaundiced bald eagle has caught a fish." That sums it up, but omits the complexity of the background scenes of lower Manhattan with a military aircraft

runway (from which planes and a helicopter are taking off), a ribbon of highway, and the Dali-style scales of justice dangling from the statue's forearm. Frank resists discussing the work beyond the brief explanatory interpretation he's attached to it. "To explain why it's amusing or funny makes it stop being funny. I prefer to present the stuff and either you get it or you don't."

Sacco sees other themes within the MOBA collection. In landscapes, waterfalls

mysteriously spring up, mountains arise from flat surfaces, and trees in a natural forest march along in straight lines. Goofy designs and strange objects, or blocks of color, crop up where artists seemingly "didn't know what to do with all that empty space on the canvas," she says. Then there are the creative contortions to avoid rendering notoriously difficult hands and feet.

In Safe at Home (which hangs in Somerville), players' hands are either roundish blobs of paint or obscured by mitts, and the umpire's protective vest is not on his chest, but slung over his entire left arm. There are other such juxtapositions. "Someone on the Red Sox is sliding into home from first base," Sacco pointed out, "which is as puzzling as whatever the beast is that's eating him."

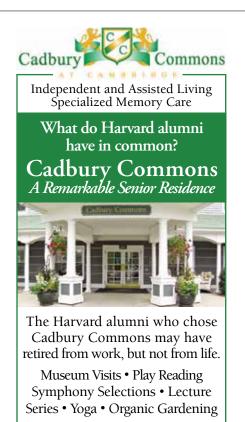
MOBA occasionally learns of an artwork's provenance only after it has been displayed. The strange, dream-like watercolor *He Was a Friend of Mine*, featuring an angry cat and a benign-looking husky looming in clouds overhead, was painted by a homeless man and given to a benefactor who had provided him with food and art supplies, Sacco said. "And you know if the artist was here he'd be able to

tell us exactly what he was doing, what this painting means to him."

Years after MOBA salvaged the six-footsquare portrait Man in Puffy Disco Hat from a Back Bay loading dock (thanks to a call from UPS driver Bob Bean), it appeared in a newspaper article on the museum, and a woman called to say, "You've got a portrait of my husband." "She came over here to see it," said Sacco, "she and her twin sister, two little tiny ladies in their nineties, and told us that when her husband died, she had this painting made of him, from two photographs, in 1978. It had been hanging in her living room in the Back Bay and when she was downsizing she couldn't keep it, so it went out into the trash. She was thrilled we had it—it was wonderful." (The painting is on permanent display in Somerville because it is so heavy.)

Sacco also reported that a surprising number of artists offer to donate their own works. If turned down by MOBA, she surmises, they may believe the piece is "not that bad." If accepted, their creation has an audience.

Bone Juggling Dog Wearing a Hula Skirt, in "MOBA Zoo," is among three works MOBA has accepted from Mari Newman, known in







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Minneapolis for her Outsider Art. The panel features a smiling ginger-bread-man-like dog, with brown fur overlaid with polka dots and with his tongue sticking out, against a background of dog bones, scores of white flowers, and swirling patterns of colors dabbed on in minute strokes. "The artist is legally blind," Sacco explained, "so her works have a lot of detail because she can only see when she's very close up to the canvas." According to Sacco, Newman also has pieces in collections at the Columbus Museum of Art and the New Orleans Museum of Art.

MOBA's works do share traits found in Outsider Art, Naïve Art, and even folk art, and sometimes it's hard to tell what the differences really are. That begs other questions about its overlaps with fine-art criteria, Sacco said, "because we're looking for something that engages, that gets you talking, that raises questions—you know, all of those are things that any museum will tell you they are doing."

Malinkova, by Tatyana Lyarson (1998), was found by Frank in a Boston thrift shop in 2012, with the title (Russian for robin redbreast), artist's name, and date on the back of the canvas. "The young woman's head is slightly atilt under the weight of impossibly orange hair in this idyllic tableau," he wrote in the accompanying label. "A tiny songbird has alighted from the dwarf tree bearing two green apples onto a one-dimensional chair, contemplating the coiffure as a potential new home."

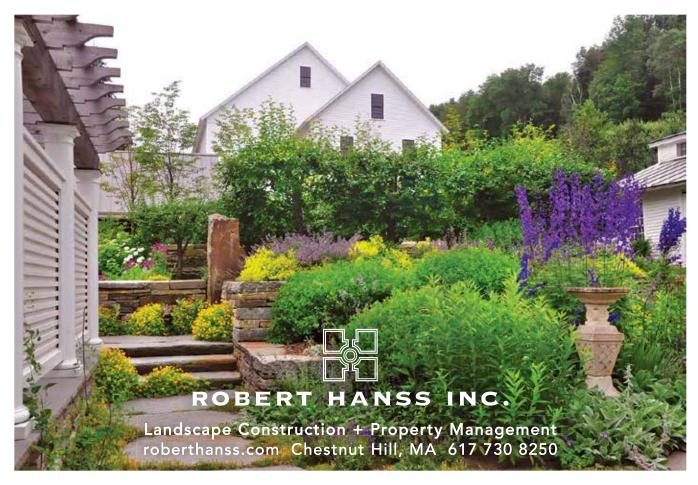
It's a delightful image. Free-spirited, odd-

ly Edwardian-looking: any number of people might like to hang it in their own home. "It really bothers me when people say things like, 'That's not bad, why is it here?' 'But, I like this!" Frank said. "Yeah, I like it, too-that's why I collect it. We like all these paintings. They are compelling, or we wouldn't be doing this."

He is also irked

by nonchalant offers to buy MOBA's art. "From time to time people say, 'I need this and I will pay a lot of money," he said. "And invariably, they offer about \$150, and I say no. We're a museum, not a gallery," he added. "They wouldn't go to the MFA and say, 'I really want that,' and make a silly offer and expect to get anyplace. I mean, seriously, come on."





#### TASTES & TABLES: Pork Bao and Bubble Waffles

Chinatown's hip Shōjō serves addictive Asian-fusion tapas with a quirky Western twist. Japanese sweet-potato tots are dipped in miso tare aioli (\$8). Chicken and Hong Kong bubble waffles (a popular street-food item) come slathered with five-spice butter (\$16). And the resident hamburger, the "Shōjōnator," is housed in a steamed bao-style bun and topped with smoked bacon and "kimcheese." Shōjō is best known for its baos—pork, shrimp, and vegetarian versions—with a rich BBQ sauce, and a singularly delicious chili-cheese mess the kitchen calls "shadow-

less" duck-fat, hand-cut fries (\$11).

Fresh juices and stylized cocktails complement any dish—try The Loneliest Monk (aged rum, Frangelico, pineapple, and lime juices; \$12). Shōjō also offers fine Japanese spirits and a crazy-long list of pricey whiskeys. People come to have fun. The place is run by a young generation of longtime Chinatown restaurateurs: the team's also

responsible for the ramen shop Ruckus (as in the Wu-Tang Clan song, "Bring Da Ruckus") next door, and the revamped BLR by Shōjō. All have helped revive Chinatown's

Shōjō. All have helped revive Chinatown's reputation among a hip, young crowd. "Shojo's a place to bring a *fun* parent," one 20-something patron said, "not like my par-

Shōjō 617-423-7888 shojoboston.com

ents." (Although anyone of any age averse to a loud, typically hip-hop, soundtrack is forewarned.)

Japanese for school-aged girl, shōjō is also a reference to shojo

manga, the comic books and magazines targeting that demographic—as the restaurant's graffiti-styled wall graphics, murals with warriors, dragons, mystical mountains, and other anime décor attest. Just how that theme links to the menu is not so clear, but, when distracted by friends, drinks, pounding music, and that first bite into a freshly steamed pork bao (at left), it doesn't seem to matter. ~N.P.B.



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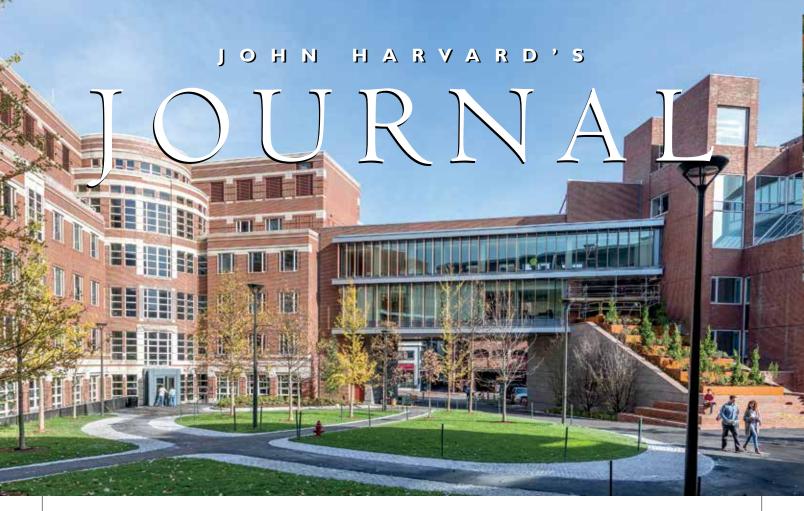
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# Strengths—and Warning Signs

For the fourth consecutive year, Harvard has reported a financial surplus—and its largest to date: \$114 million for the fiscal year ended June 30, 2017. And for at least the fourth consecutive year, the University's senior financial officers have cautioned against taking the good times for granted. They cited the significant boost resulting from the refinancing of much of Harvard's debt in the fall of 2016, which bolstered the results for fiscal 2017. And they are mindful of the decision to hold the distribution from the endowment, the largest source of operating revenue, flat in the current year (reflecting weak investment returns), after relatively robust increases in prior years making it possible that the fiscal 2018 report will be more constrained.

Highlights of the year included:

• revenue growth of \$222 million (4.6 percent), to nearly \$5 billion—largely consistent with the quarter-billion-dollar growth (5.5 percent) in fiscal 2016; and

• expense growth of \$185 million (3.9 percent), to \$4.9 billion, moderating from the 5.3 percent growth in the prior year,

Revenue. The income engines included the annual operating distribution from the endowment (up \$81 million, to \$1.8 billion: 36 percent of revenue); net tuition and fees (up \$56 million, to just more than \$1\$ billion: 21 percent of revenue); sponsored-research funding (up \$40 million, to \$886 million: 19 percent of revenue); and capital-campaign-driven gifts for current use (up \$29 million, to \$450 million: 9 percent of revenue).

Undergraduate tuition revenue rose about 4 percent, and graduate- and professional-degree programs yielded about 5 percent more revenue, but with financial-aid scholarships rising just 4 percent, net tuition revenue for these programs increased 6 percent. Consistent with recent experience, tuition from continuing- and executive-education programs lapped the field, rising 8 percent; financial administrators hope that momentum can be sustained, providing relief elsewhere in schools' budgets.

Funds for federally sponsored research (about 70 percent of total research sup-

port) increased about 4 percent; nonfederal support, principally from foundations, increased about 8 percent, to \$267 million. That welcome growth is tempered slightly because nonfederal research sponsors typically provide less "indirect" funding to pay for building, administrative, and related overhead costs—and that was evident this year, when that indirect funding actually declined modestly.

Expenses. Salaries and wages increased 4 percent, to \$1.9 billion, reflecting annual merit increases and growth in employement—the latter associated mostly with expanded sponsored research and those continuing- and executive-education programs. Benefits costs rose 7 percent to \$569 million, driven by interest-rate-related increases in defined-benefit pension and post-retirement healthcare costs (a factor expected to reverse this year).

The debt refinancing and restructuring in the fall of 2016 trimmed interest expense by \$33 million in fiscal 2017—a benefit that will increase during the full 12 months of the current year.

In the meantime, Harvard is conducting



**CAMPUS RECONFIGURED: Harvard** Kennedy School unveiled its renovated, reconfigured quarters to the public on December I. In effect, a new ring of buildings has been inserted within the existing one, and below the prior courtyard. A view from the latter (left) shows the bridge structure created to partially enclose the pedestrian and vehicular entrance from Eliot Street. The aerial (above) reveals the layout, the bridge, and the link building that closed the gap facing the Charles Hotel complex to the upper right (west). A detail from within the courtyard; and a new social space connecting dining areas with the IFK Jr. Forum. Read more at harvardmag.com/ hks-redo-17.

campus construction at an unprecedented pace: such costs totaled \$906 million in fiscal 2017, up from an already torrid level of \$597 million in the prior year. (They are largely capitalized and therefore not directly reflected in the annual operating results.) The work encompasses undergraduate House renewal, the science and engineering complex rising in Allston and Harvard Business School's new conference center nearby, the reconfigured and expanded Kennedy School campus (see above), and renovation of Holyoke Center into the Smith Campus Center. The fiscal 2017 total may have been somewhat elevated by a land acquisition, not otherwise described: at year-end fiscal 2017, Harvard held \$968 million of land, up from

s784 million the prior year (and s672 million at the end of fiscal 2015). Most universities could not afford the luxury of holding a nonearning asset of that size; much is slated for future academic development, but it will be interesting to learn the revenue-generating plans in Harvard's proposal for development of its envisioned "enterprise research campus," on 36 acres of Allston Landing when it is filed with Boston regulators in coming months (see harvardmag.com/erc-17).

In prospect. Building activity will continue at a high level through the duration of the marquee projects, necessitating some additional Harvard borrowing in the future. The capital campaign concludes next June 30, so the future flow of current-use gifts merits

attention. Gifts for endowment were \$551 million in fiscal 2017, up smartly from the prior year, and should continue to flow in as campaign pledges are fulfilled, but they, too, will peak at some point.

The known constraint is internal: the decision to keep the operating distribution per endowment unit level with fiscal 2017. The relatively tepid investment returns during the year, and the multiyear restructuring of Harvard Management Company (HMC; see harvardmag.com/hmc-summary-17), aimed at boosting lagging performance, would have kept the distribution under pressure in succeeding years, too, according to the formula the University uses. Accordingly, the Corporation has decided to adopt a "collar" for the next three fiscal years: it has told schools to plan for per-unit distributions to rise between 2.5 percent and 4.5 percent annually, starting with 2.5 percent for 2019 (beginning July 1). That gives deans some budget guidance, while maintaining a relatively conservative posture during Harvard's presidential transition, the changes at HMC, and an uncertain economic and political environment.

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#### HARVARD PORTRAIT



### Megan Sniffin-Marinoff

"Want to see some cool stuff?" asks University archivist Megan Sniffin-Marinoff with an expectant grin, reaching for a library cart loaded with treasures from the vault. In one folder, a plaintive letter from then-undergraduate John Hancock to his sister in 1754 ("I wish you would spend one hour in writing to me..."); in another, pictured above, an 1837 "class book" in which senior Henry David Thoreau reflects on his Harvard career ("those hours that should have been devoted to study have been spent scouring the woods..."). There's W.E.B. Du Bois's 1895 doctoral dissertation, with his handwritten corrections; a 1980s Lampoon letter jacket; a 1963 interview request to Malcolm X from journalist Theodore White '38. Harvard archivist since 2004, Sniffin-Marinoff grew up on Long Island and studied journalism at Boston University; working at local newspapers afterward, she found herself a researcher more than a reporter. A master's at NYU—in history, with a secondary focus on archives—led to a job at NYU's archives. Stints at Simmons College and MIT followed, then the deputy directorship at Radcliffe's Schlesinger Library, and, finally, the post at Harvard. Its vast archives are the oldest of their kind in the country. She and her staff are finishing a project to digitize and catalog half a million colonial-period records; soon they'll tackle the nineteenth century. Along the way, they're finding long-buried stories of women and people of color indirectly documented in centuries-old diaries, letters, and ledgers. "We spend a lot of time thinking about what it means to 'document Harvard," says Sniffin-Marinoff. One important answer: unearthing the hidden layers of a campus—and a country—"that was always more complex than it seemed."  $\sim$ LYDIALYLE GIBSON

(More details are available at harvardmag.com/fas-octmtg-17. Endowment distributions are explained at harvardmag.com/distribution-16.)

A substantial unknown, revealed after the financial report was released in late October, is U.S. tax policy—including, for the first time, a proposed excise levy on endowment income (see "Taxing Matters," facing page).

Even before that news, Harvard's financial leaders were cautioning the community not to expect the 5 percent to 6 percent revenue growth of the past two years to continue. Both economic growth (which has lasted for an unusually long time, with unusually low interest rates and robust financial markets) and the capital campaign are long in the tooth. Continuing and executive education and current-use giving are sensitive to economic conditions and to fundraising fatigue. A weaker economy would increase families' need for financial aid, driving up

those costs. And all that construction drives higher campus operating costs and depreciation, both of which are already rising.

Given those factors, vice president for finance Thomas J. Hollister (the University's chief financial officer) and University treasurer Paul J. Finnegan, used their message in the annual report to look past



Thomas J. Hollister

the bounty to the concerns that come naturally to their species. The fiscal 2017 operating surplus, they stressed, "may represent a high-water mark for the foreseeable future," given revenue constraints throughout higher education. The entire sector's business model, they maintained, "is under enormous pressure," because a half-century of growth (in enrollments, federal research funding, and endowment-fueled investment income) has run its course. "Higher education has matured as a industry....The industry is showing financial strain, even in these comparatively healthy economic times" and even with the welcome complement of a supernova capital campaign that has recorded more than \$8 billion in pledges and receipts.

"Our deans and administrative staff are first focused on mission excellence," they continued, "but they are also increasingly focused on cost containment and newer sources of mission-related revenues....We raise this not as a matter of discouragement, but simply to signal to the University's many friends, supporters, alumni, faculty, students and staff that the University, and its schools and units, will need to further adjust to the environment, change, and embrance new ways of extending Harvard's excellence in the future."

A detailed report appears at harvardmag. com/budget-17. ∼JOHN S. ROSENBERG

### Taxing Matters

THE FEDERAL TAX LEGISLATION being considered in Congress as of press time drafted by Republicans without consulting Democrats, and advanced without benefit of hearings—contains a lot of surprises for higher education. At least one version of the bills proposed:

- ending deductions for interest on student loans (which would affect the overwhelming majority of students who do not attend well-endowed institutions with need-blind admissions that can extend aid for students' full financial need);
- eliminating a tax-code provision many institutions rely on to aid graduate students

(making those students liable for cash taxes on imputed income; Harvard hasn't yet been able to determine if the precise language would affect its graduate students); and

• ending the tax-exempt status of bonds routinely issued by universities, and other nonprofit institutions, to fund buildings and construction projects (effectively raising their costs).

Whatever their collective implications, if enacted, for U.S. higher education and the skills of future citizens, a separate provision—to impose a 1.4 percent excise tax on the endowment income of several dozen private colleges and universities—has prompted the greatest concern at Harvard. It represents the first time a proposal to tax endowments has advanced this far; if enacted, it would set a precedent for taxing endowments more heavily.

It is no surprise that the tax-bill authors would seek any possible, politically palatable sources to offset the multi-trilliondollar losses of revenue accompanying their proposed tax cuts (they seek to contain the net 10-year cost to \$1.5 trillion). Nor is their interest in tapping endowment wealth news: Senator Charles Grassley (Iowa) has long sought to mandate a minimum annual distribution, and Representative Tom Reed (New York) has more recently sought to mandate that 25 percent of endowment income be spent on financial aid. That the current proposal would target private institutions more or less follows: that's where the money is; and recent polls indicate wide disaffection toward higher education among Republican-leaning voters. Of note, The Chronicle of Higher Education's most recent tally of selective colleges whose students incur the *least* federal loan debt to pay for their educations overlaps almost exactly with the list of those highly endowed institutions.

In Harvard's fiscal year ended June 30, 2017, funds distributed from the endowment to support the academic enterprise totaled \$1.8 billion, or 36 percent of revenue. Were the excise tax in effect, the University's bill that year would have been about \$40 million (see the calculations at harvardmag.com/endowment-tax-17): slightly less than 1 percent of revenue. Because the Corporation aims, over time, to distribute about 5 percent of the endowment's value each year to support the University's operations, that tax payment has the same effect as wiping out nearly \$1



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billion of endowment value.

But the fiscal 2017 figure is based on a year of mediocre investment results; Harvard Management Company's 8.1 percent return, net of expenses, yielded investment gains of \$2.7 billion to \$3.0 billion (depending on how the assets are counted). Had the University matched peer institutions' returns (MIT, 14.3 percent; Stanford, 13.1 percent; Princeton, 12.5 percent; Yale, 11.3 percent), the new levy would have been \$60 million to \$70 million. This is real money—and the sums should grow if endowments grow, as they are intended to. (And of course there is a downside: Yale's David Swensen, the leading light among university endowment managers, has recently talked about lowering expectations for future returns to 5 percent or so; Harvard is typical in projecting long-term returns of 8 percent. If downbeat predictions come to pass, endowment-dependent universities will be severely squeezed, and a new excise tax would exacerbate the resulting trauma.)

The Faculty of Arts and Sciences—which doles out the undergraduate aid that members of Congress talk about, to the tune of \$180 million in fiscal 2017 (much of that from endowed sources) relied on endowment distributions for 52 percent of its revenue that year. Harvard Medical School, the source of so much high-impact research, derived only 28 percent of its fiscal 2017 revenue from the endowment—but its mission has been constrained by continuing, and rising, operating deficits (reaching \$44 million, or 7 percent of revenue, that year). No doubt, it would love to shore up its finances and secure its academic work with substantially more endowment income. Note to billionaires: this is a naming opportunity—but

fundraisers must now add to their pitch, "Please disregard pending tax measures."

Reponding to the proposed tax, President Drew Faust said:

Harvard's endowment is what fuels our excellence, affordability for students of modest means, our commitment to discovery, and our impact in the world. This measure would disadvantage universities in the charitable sector, and—in targeting universities—weaken the nation's strongest contributors to medical cures, economic innovation, job creation, scholarship, and access

to higher education for students of all economic backgrounds who will shape our future.

Philosophically, the proposed excise tax on private institutions' endowments appears at odds with conservative principles. Republicans have, traditionally, sought to restrain *public* spending (and many states with Republican governors and legislatures have cut back public universities' budgets considerably during the past decade), and to encourage the private sector. In this instance, obviously, the search for revenue leads to proposed taxation of *private*, or at least non-profit, institutions. Writing in *The Washington Post*, columnist George F. Will lamented:

Time was, conservatism's central argument for limiting government was to defend these institutions from being starved of resources and functions by government. Abandonment of this argument is apparent in the vandalism that Republicans are mounting against universities' endowments. This raid against little platoons of in-

dependent excellence would be unsurprising were it proposed by progressives....Coming from Republicans, it is acutely discouraging.

A Realpolitik assessment came from New York Times columnist David Brooks, who observed, "This is the beginning of the full-bore Republican assault on the private universities, which are seen as the power centers of blue America—rich, money-hoarding institutions that widen inequality and house radical left-wing ideologies."

If Brooks is correct, the tax proposal, whether enacted now or postponed for a future day, has two likely consequences:

- fuller employment, at least for universities' public-affairs staffers in Washington, D.C.; and
- a strong incentive for higher-education institutions to rely more heavily on undergraduate tuition and fees, their best remaining source of unrestricted funds—presumably the exact opposite of the effect sought by politicians who see endowments as a way to lower college costs.

### "Cheaper, Faster, Better"

EVEN As biomedical science is poised to deliver therapies and cures for countless diseases, "There has never been a greater disconnect between the remarkable opportunities" to achieve those goals "and the paucity of resources," declared George Daley, dean of Harvard Medical School (HMS), in a November interview. Approaching his first decanal anniversary, he discussed his

priorities for the school, focusing on the economic challenges facing medicine, from developing affordable treatments for patients to ensuring broad access to medical education—despite annual costs nearing \$90,000 per student. In meeting these challenges, he envisions a "transformation of the academic medical center into a vehicle that is more effective at delivering treatments." Realizing that vision entails reorganizing the teaching and research enterprise, revitalizing HMS's campus, and expanding the ranks of scholarship-supported physician-scientists in its

M.D.-Ph.D. program.

"Harvard Medical School has always been at the cutting edge of fundamental discovery research," said Daley, who has himself made major contributions to the understanding of blood cancers and the use of stem-cell therapies (see harvard-mag.com/specialized-stemcells-o8). At the same time, "The pharmaceutical industry has been remarkably effective at delivering drugs: small molecules, antibodies, gene vectors, and now, at the vanguard, engineered cells. But the latest immunotherapy for cancer, the CAR T cell [personalized Chimeric Antigen Receptor therapy that stimulates a pa-

George Q. Daley, dean of Harvard Medical School

JANUARY - FEBRUARY 2018 Photograph by Stu Rosner

tient's own immune system], is going to be priced at nearly half a million dollars a patient." If other innovations come with similar price tags, he pointed out, this will quickly "bankrupt the system." The drug-development and -approval pipeline—with timelines of 10 to 15 years and costs as high as \$1.5 billion per drug—needs to operate much more rapidly, with significantly lower associated expenses, he said. "So we need to not only be innovative, but we need to be much more efficient: cheaper, faster, and better."

HMS's role, he continued, is to move fundamental discoveries forward to the point where the biopharmaceutical industry recognizes their value, and invests in them. "Where we have a common mission"—to develop therapies that will relieve suffering in patients—"that purpose drives us to work together," he said. In a recent survey, threequarters of the school's faculty members said they are involved in research that could lead to new therapies. The primary roadblock they identified was lack of funding.

That is where Daley comes in. "When I started my lab," in the early 1990s, he recalled, "a senior mentor whispered in my ear, 'If you control your funding, you control your future.' And as a nascent dean, I'm feeling the same way. If I can provide this community with a wealth of resources that it deserves"—he currently spends a third of his time fundraising—"I will be able to make the community that much more effective." That is true whether faculty members work with industry, or independently tackle a rare disease that could never attract commercial interest. HMS "will stay focused on the mission of advancing human knowledge, relieving suffering by developing new treatments," Daley asserted. "If we are true to that mission, success will come on all angles"—including, ideally, "a stream of licensing and royalty revenues that should sustain the research enterprise into the future."

Within HMS, being effective and efficient means rethinking how fields are organized. "Academic departments arose because of their responsibility for educating medical students," Daley explained. Today, "Not all of them faithfully capture the dominant and emerging intellectual trends," so a facultyled reevaluation of departmental structures and goals is under way. The rapidly expanding fields of microbiology and immunobiology, for example, will become separate departments; other fields will be consolidated. And even though departments remain effec-

### University People

#### Freshman Dean Graduates

Six months after celebrating his fiftieth College reunion (Commencement Confetti, July-August 2017, page 19), dean of freshmen Thomas A. Dingman said he will step down next June. Dean of the College Rakesh Khurana made the an-



Thomas A. Dingman

nouncement on November 16, lauding Dingman for 45 years of Harvard service, culminating in his current responsibilities, which he assumed in 2005, and citing "his integrity, the calming presence that he brings

to all situations, and the passion he has for helping students make the transition from home and high school" to their new Crimson community. Dingman has overseen initiatives like the Convocation ceremony, the freshman discussion sessions on making life choices, and the preorientation program being designed for first-generation and low-income students entering Harvard this coming August. Dingman told The Harvard Crimson that he looks forward to more family and travel time, but he has also agreed to serve as an adviser to Khurana, in part to help raise funds to support the student experience.

#### **UK-Bound**

Four seniors have been awarded Rhodes Scholarships for study at Oxford University: Tania N. Fabo, of Quincy House and Saugus, Massachusetts (a human development and regenerative biology concentrator); Harold Xavier Gonzales, of Winthrop House and Houston (mathematics); Samarth Gupta, of Lowell House and Acton, Massachusetts (economics); and Alan Yang, of Quincy House and Dresher, Pennsylvania (molecular and cellular biology). In addition, three Harvardians have won international Rhodes awards:

tive for pedagogical purposes, research may be better organized around shared resources, added the dean, such as expensive technologies like a new center for cryo-electron microscopy, which allows scientists to view individual molecules at near atomic resolution, and conversions of existing space to New Zealander Jamie Beaton '17, S.M. '16 (applied math and economics);

Zimbabwean Terrens Muradzikwa '18, of Dunster House and Mutare (economics); and Trinidadian Mandela Patrick '18, of Currier House and San Fernando (computer science). Harvard's sole Marshall Scholar is Elizabeth Keto, of Quincy House and Chevy Chase, Maryland (history of art and architecture); she plans to study at the Courtauld Institute of Art, in London.

#### **Erasmus Honorand**

Michèle Lamont, Goldman professor of European studies and professor of sociology and of African and African American studies, has been awarded the 2017 Erasmus Prize, accompanied



Michèle Lamont

by a €150,000 honorarium. Her research has probed the connections between inequality and social exclusion and how stigmatized groups preserve their dignity.

#### **Morehouse Men**

David A. Thomas, Fitzhugh professor of business administration, and the former dean of Georgetown's Mc-Donough School of Business, has been appointed president of Morehouse



David A. **Thomas** 

College. He succeeds John Silvanus Wilson Jr., M.T.S. '81, Ed.M. '82, Ed.D. '85 (profiled in "Morehouse Man, Redux," November-December 2013, page 72).

#### **Prize Poet**

Frank Bidart, A.M. '67, won the National Book Award in poetry for his collection, Half-Light. Complete coverage of Harvard affiliates who were finalists appears at harvardmag.com/natlbk-17.

computational, "dry labs" for data scientists.

The tools of discovery are available, Daley continued, but "what we could do better is to organize those tools collectively around therapeutics-development programs." He has convened a faculty task force, chaired by Sabbagh professor of systems biology Timothy Mitchison and professor of biological chemistry and molecular pharmacology Nathaniel Gray, to consider "innovative strategies for thinking about where therapeutics development will be 10 and 20 years from now. Harvard Medical School has to be a place that skates to where the puck is going to be," he said.

Extending his analogy, his push to double, to 24, the number of fully funded physician-scientists in the M.D.-Ph.D. program, run jointly with MIT, might be considered a very efficient hat trick. It is a program he knows well (having been through it himself), attracting "some of the most ambitious and creative students." who work at the intersection of discovery and clinical practice and are "disproportionately engaged in translational medicine." The move, by slightly altering the composition of each incoming 165-member medical school class, will simultaneously enhance HMS's effectiveness as a research institute, expand student access to medical education, and support a renewed commitment to diversifying the pipeline of faculty members, students, and scientific trainees.

By all accounts, the new dean is embrac-

ing his public role. He is working with MIT and Massachusetts governor Charlie Baker '79—a former health-insurance CEO who "understands the medical marketplace"—on strategies for making the state friendly for data-science entrepreneurs. And he recently coauthored an article in The New England Journal of Medicine with dean of medical education Edward Hundert, together with their counterparts at Johns Hopkins and Stanford, on the pitfalls of merit-based financial aid, which can have the perverse effect of moving scarce scholarship funds from students with more financial need to those with less.

He is energized by the conviction that "biomedicine is likely to be, alongside renewable energy, one of the two great technological revolutions of the next 50 years." Public-private partnerships have made U.S. biomedicine the envy of the globe, he said— "and there is no community on earth that rivals Cambridge and Boston's density and strength" in that area. "As dean, I want to capitalize on that to make us even more effective. We have got the talent to do it. We have a responsibility to deliver." ~ Jonathan shaw

#### News Briefs

#### Final Steps on Final Clubs?

AT THE November 7 Faculty of Arts and Sciences (FAS) meeting, the faculty voted on

a measure pertaining to final clubs, fraternities, and sororities (unrecognized singlegender social organizations, or USGSOs, that do not conform to the College's requirements for recognized student groups and clubs: nondiscriminatory selection processes, open membership, and local governance).

### **BREAKING NEWS**

At the December 5 faculty meeting, President Faust announced that she and the Corporation have adopted the May 2016 social-club sanctions. For a preliminary report, see harvardmag.com/ implementation-17; a full report will appear in the next issue of Harvard Magazine.

In response to the sanctions for USGSO student members unveiled in May 2016 by dean of Harvard College Rakesh Khurana,

## Samuel Huntington, Prophet

Even by the relaxed standards of the Faculty of Arts and Sciences (FAS), the interval between the death of Weatherhead University Professor Samuel Huntington (in late 2008) and the presentation of the memorial minute on his life and services (at the November 7 faculty meeting) was extraordinarily long. But it proved fruitful for the content of the memorial, prepared by Malkin research professor of public policy Robert Putnam, Geyser University Professor emeritus Henry Rosovsky, and Kaneb professor of national security and military affairs Stephen Rosen, who presented it.

"American Politics: The Promise of Disharmony was perhaps his most original work," the trio noted. "The observation that the United States was defined not by blood but by a set of political principles is commonplace. Huntington pointed out that every 50 years or so, American society was aroused by a renewed commitment to the principles of liberty and equality and, in the grip of what he called 'creedal passion,' Americans would attack the government by demanding that it actually live up to those principles. Huntington noted these periods of passion: the Revolution, the Jacksonian era, the anti-slavery movement of the 1850s, and the first wave of feminism and the call for direct democracy...at the turn of the twentieth century. Starting in the 1950s and contining into the 1960s, there were the civil rights movement and the second wave of women's liberation. On the basis of this cyclical understanding of American politics, in 1991 Huntington presciently predicted another wave of creedal passion in the second and third decades of the twenty-first century,

when the invevitable frustrations with reforms would lead to calls for authoritarian efficiency."

Turning to the book for which Huntington is perhaps most widely known, the memorialists put The Clash of Civilizations and the Remaking of World Order into what they regard as its proper context. The title, they noted, was "chosen by the publisher of the article



Samuel Huntington

that gave rise to the book and [was] not one that he particularly liked." Though today the work is often put to partisan purposesviewed as a call for, or prediction of, tribal strife—the writers maintained that "The core of the argument is that you cannot understand what people want until you understand who they think they are. Religious beliefs shape identity but do not determine interests, much less behavior. Civilizations do not inevitably clash....If the events of 9/11 and after led others to see a world locked in wars among civilizations, this was not Huntington's conclusion. In that book and in his final years he was a strong advocate of international multiculturalism, a policy of live and let live and non-intervention in the ways of life of other cultures." ~J.S.R. and a subsequent proposal that future students be prohibited outright from joining such organizations, Gordon McKay professor of computer science Harry Lewis and like-minded colleagues advanced a motion that would proscribe either measure. They cited students' right of free association in legal activities, and objected both to features of the sanctions and to devolving decisions on policies governing student life matters they argue are subject to faculty legislation—to administrators. When put to a vote, though, the motion went down, 130 to 90—with about 25 percent of eligible FAS members weighing in. An Undergraduate Council survey of students (not adjusted for the response rate) showed 61 percent opposed to the sanctions on USGSO members. A detailed report is available at harvardmag.com/fas-novmtg-2017.

What USGSO policies would finally be put in place, however, remained unresolved. The final report of a committee on the matter, co-chaired by Khurana, laid out three options, rather than settling on one: the sanctions regime (effective for the freshmen who enrolled this year, but not being implemented while deliberations continue); the prohibition on membership (which would presumably take effect for freshmen enrolling next August); or some third course of action, possibly relying on education and suasion, intended to make participating in gender-exclusive social clubs unattractive. For a discussion, see harvardmag.com/ fasfractures-17. ∼J.S.R.

# Preventing Preprofessionalism

AT THE same November FAS meeting, dean of undergraduate education Jay Harris introduced a proposal that would limit how many course credits undergraduates could take from other Harvard faculties, and have count toward the bachelor's degree: eight out of 128. (Students would be free to take as many additional courses, uncredited, as they wished, and, as before, can still take an unlimited number of credits earned in courses offered by MIT.) There would be one exception to the eight-credit limit: any cross-registered courses that a department counts toward concentration credit would not count toward the new limit. This issue has risen in importance as barriers to

### Yesterday's News

From the pages of the Harvard Alumni Bulletin and Harvard Magazine

1923 The Bulletin reports that Archibald MacLeish, LL.B. '19, Alan Rinehart '21, and Roy E. Larsen '21 are, respectively, education editor, associate editor, and circulation manager of a new magazine due to appear February 24—Time.

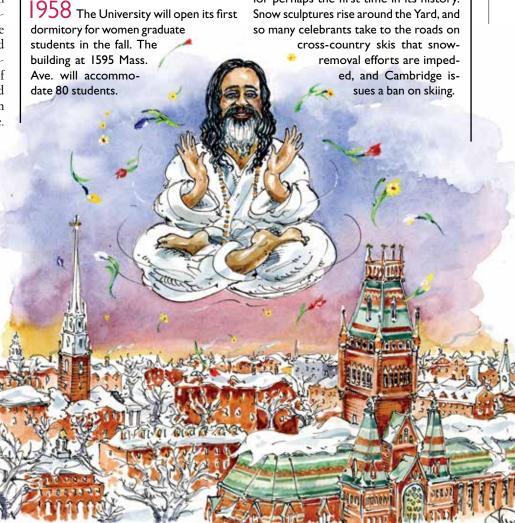
1928 Both Widener and the Harvard Union Library make special efforts to stock those books needed by undergraduates during the College's first "reading period."

1948 President Conant's annual report suggests decreasing University enrollment from its present 12,500 to its pre-war average, roughly 8,000, to avoid major increases in physical plant and staff and drastic changes in teaching methods.

1963 Beginning in September, the Business School announces, women may apply directly to its two-year M.B.A. program. The one-year, non-degree Harvard-Radcliffe Program in Business Administration (previously required for any woman seeking to join the M.B.A. program in the second year) will be terminated.

1968 Signs of the times: Maharishi Mahesh Yogi packs both Sanders Theatre and—via public address system—Lowell Lecture Hall; the required reading list for History 144b ("England in the Twentieth Century") includes Sgt. Pepper's Lonely Hearts Club Band.

1978 The Blizzard of '78 forces the University to close during full term-time for perhaps the first time in its history. Snow sculptures rise around the Yard, and so many celebrants take to the roads on



cross-registration have fallen; from the fall of 2013 to last spring, the number of cross-registrations tripled, to nearly 300.

The rationale, explained in a handout, is straightforward: to safeguard "the integrity of the College's liberal arts and sciences degree" by posting some boundar-

ies around preprofessional education. The risk is spelled out, too: the concentrations with the largest numbers of cross-registrants are those most professionally oriented: economics, government, computer science, and social studies. And the most popular option for enrollment outside the

College? The clearly preprofessional MIT course "Corporate Financial Accounting"— an obviously useful bit of learning for the (many) new graduates who still head off to Wall Street or consulting.

The proposal was adopted at the FAS meeting on December 5. ~J.S.R.

#### THE UNDERGRADUATE

# Teaching Hip-Hop in China

by Tawanda mulalu

FLEW INTO Hangzhou with swampy armpits and jet-lagged eyes. Each of us had our own classroom dreamscapes, with syllabus titles like "(Post)human Creativity: Art in the Digital Age" and "Dances With Wolves: Animal Psychology and Human Body Language." The conceit of the Harvard Seminars for Young Leaders in China (HSYLC) is that the spirit of American liberal-arts education can open up the minds of Chinese teens, long beaten stiff by a soul-sucking education system. (Later, when I asked my kids about Chinese high school, they told me that it is perversely exam-focused, not particularly interested in students' personal thoughts,

and harshly competitive. When they asked me about Harvard, I said that it is perversely exam-focused, somewhat interested in students' personal thoughts, and harshly competitive.) We could teach anything we wanted. I was determined to teach my four classes, of 15 students each, at Hangzhou No. 2 High School, how to rap.

My class, "Africa, America; Hip-Hop, Poetry," would be about black words from home and from here. "Home" is Botswana, but it would have been sinful to not teach *Song of Lawino*, the Ugandan epic poem whose narrator fights to prove to her husband that their culture is just as meaningful as that of their colonial oppressors. "Here" is America, which the kids knew principally

through pop culture, the Internet, and their own Harvard aspirations. What they didn't know is that it is also home to a deep and historic black struggle and the rugged art born from it. Going on a fast-forward ride through old school hip-hop to the current day, from Eric B. and Rakim to Nas to Kanye West to Kendrick Lamar, the class would consider the political and cultural lessons of these artists, and compare them to my students' experiences growing up in China.

One would assume, or rather one would hope, that the person teaching this seminar would be entirely at home in the fact of his skin. I am not. I find the fact of it bemusing. I have trouble reconciling the way the world is definitionally absolute in what

my blackness must mean, with the colorlessness of my writing. Having denied myself my native language, Setswana, by stubbornly gliding through the Western canon as a teenager, I now cannot use the tones and textures of my forefathers' speech. Having being denied, by virtue of being a foreigner, the same black experience as African Americans, I also cannot quite access the power of their own twists and turns of the English language. I marvel at the Pan-African poetry of some of my freedom-fighter-aspiring friends back home, thick with metaphors and sounds that I cannot find within my heart to try. My own attempts at it are clumsy approximations of experiences that I am barely in touch with, despite having lived in the same continent in



#### **MacArthurs Three**

Mehra Family professor of South Asian studies and professor of history Sunil Amrith has been awarded a no-stringsattached, \$625,000 MacArthur Foundation fellowship. Landscape architect

Kate Orff, M.L.A. '97, and Damon Rich, a 2007 Loeb Fellow at the Graduate School of Design, were also awarded fellowships. Details are available at harvardmag.com/ macarthurs-17.

### **Diversifying Pre-orientation**

The freshman dean's office is completing work on a new pre-orientation program, planned to accommodate up to 100 matriculants in August, aimed particularly at students who are the first generation in their family to attend college, come from lower-income backgrounds, or attended high schools whose graduates are "typically underrepresented in the Ivy League."

Details are expected this winter; the content is likely to cover the transition from home to college, making the most of the College's culture (by attending office hours and building academic relationships with professors, and so on), and navigating campus resources. For more on such programs, see "Mastering the 'Hidden Curriculum" (November-December 2017, page 18).

### **On Other Campuses**

Three Yale scholars, reporting in Nature, found that their campus's pilot carbonpricing scheme had been effective in reducing energy use; the program has now been extended to more than 250 buildings, which account for nearly 70 percent of carbon dioxide emissions....Kenneth Griffin '89, whose \$150-million gift, principally for undergraduate financial aid, boosted the Faculty of Arts and Sciences early in the current capital campaign (see harvardmag. com/aid-14), has now given \$125 million to the University of Chicago, where he is a trustee, to underwrite faculty positions, research, and financial aid in economics. Separately, Chicago's Booth School of Business announced a \$75-million gift from two of its M.B.A. alumni....The University of California, San Francisco, a graduate-

### Brevia



THE MARSHAL MOVES ON. Jackie O'Neill, who as University Marshal maintained timely order during Commencement Exercises for the past 14 years, retired at the end of December. The rest of the time, the marshal welcomes international visitors to Harvard: heads of state, academic delegations, and more (847 visitors from 52 countries in the most recent year). Her prior Harvard service, begun in 1976, spanned roles in government relations, as staff director for the president and provost, and involvement in the University's presence in Allston. By stepping down now, O'Neill enables a successor to make ready for the next Harvard president's inaugural hoopla-perhaps next October; but it means that she will not receive earned accolades for conducting the proceedings on May 24, the last Commencement at which Drew Faust will preside and be applauded. Margot Gill, the Faculty of Arts and Sciences' administrative dean for international affairs, will serve as interim marshal through June 2019.

level, health-sciences institution, has announced a \$5-billion capital campaign with \$3 billion already committed.

#### **Decanal Duo**

President Drew Faust has initiated searches for successors to Graduate School of Education dean James E. Ryan, presidentelect of the University of Virginia, and Lizabeth Cohen, who is stepping down at the Radcliffe Institute to resume teaching. The advisory committees and channels to forward ideas or nominations are detailed at harvardmag.com/gseri-searches-17.

### **Real-Estate Roundup**

Harvard has leased the entire 61,000-square-foot property at 784 Memorial Drive—a landmark building once occupied by Polaroid—to house information technology services staff members....Cambridge City Council has voted to approve MIT's enormous redevelopment of a 14-acre site adjacent to Kendall Square, in which it has made an initial \$750-million investment. After building new quarters for the federal Volpe Transportation Systems Center, the institute plans to erect 1,400 units of housing, hundreds of graduate-student beds, and office

and laboratory buildings, plus street-level retail and public spaces....The renewal of Adams House, scheduled to follow the two-year renovation of Lowell House, now under way, may be conducted over a three-year span; given Adams's multibuilding structure, the College envisions the work proceeding in stages—with the result that some students may remain in residence throughout, rather than all decamping to swing spaces.

### **Nota Bene**

HBX unbundles. The Business School's three-course online Credential of Readiness (CORe) program has been separated into three eight-week online certificate programs (in business analytics, economics, and financial accounting), amplifying opportunities to attract students. Each costs \$1,500.

Social investing. The University's retirement plan investment committee, responding to requests from faculty members and others, is surveying plan participants to determine whether they would like fund options incorporating social criteria (such as labor practice, environmental impact, etc.)—and if so, of what sorts.

 $which \ Chinua \ Achebe \ wrote \ \textit{Things Fall Apart}.$ 

Meanwhile, in America, the soul and harshness of its rappers move me with tales of their own black lives and their questioning of the white political structures that dehumanize them. Kendrick Lamar, in the unofficial but de facto theme song of the Black Lives Matter movement, "Alright," shouts out "and we hate po-po, wanna kill us dead in the street fo sho." While teaching this song, I thought of my mother's warnings to watch out for the American police as I prepared to come here for college. The campus police don't bother me because I am a Harvard student, so I'd never worried much about what she said. After all, the interests of the campus police lie primarily in the safety of its students. A lot of black Americans, and thus a lot of black rappers, do not feel that their interests align with those of the police. "I personally haven't experienced the kind of life that a lot of the rappers we will be studying have had to live through," I explained to my students last summer, "so I'm trying to be careful when talking about their struggles. I want us to respect their stories, especially because we haven't lived the same lives they have."

Then, one cold afternoon this fall after the China trip, the *Harvard Advocate* building was suddenly raided by a group of campus police officers—guns pointed toward our three bodies, mine and two other students'—who told us to put our hands up in the air and our faces against the wall. The back door was broken. A back window opened clean and full. The building a drunken post-party mess. They worried that maybe there'd been a robbery. Of the three of us, only I

was black, and one of the police officers was black, so surely it had nothing to do with my skin? If I were sure that it did, then maybe my own rapping would be as angry, as righteous, as honest as Kendrick's...wouldn't it? Our words would be the same and we would be the same. In the same song, Kendrick chants, "we gon' be alright, we gon' be alright" and I go wild at every party that I hear it at because I am alive, I am all right, and he and I are still not the same; so it is easier for me to believe that we, and all black people, will be alright. And now I cannot help but wonder.

WHILE TEACHING IT, I considered my class more of a creative-writing seminar than a class about politics, and so I assigned poetry and rap-composition homework instead of essays. I was curious to see where this would take my kids. Given that they were Chinese and neither African nor African American, could they avoid the tension I felt, working as a colourless artist in a medium of black art? Would they be able to bypass all this and just...write? I would remind them before the end of class, snapping my fingers, "One. Two. Three. Four. One. Two. Three. Four. Never forget the rhythm when you're rapping and writing down your lyrics. Always keep to the beat."

This is good advice for any rapper. It is also advice that I rarely follow. With my own rapping, I feel as if I'm simply mouthing abstract whispers that occasionally match a beat. It is difficult for me to follow the rhythm. All the longs and shorts confuse me and my mouth gets filled with things I can't understand, cannot taste properly. My sense of rhythm feels so separate from the flow of my words that composing just four lines of rap can take more than an hour. I fumble. I scratch out failed verses in heavy black ink. I lisp. And I do not know how to engage the colorlessness of my black experience with the crisp, dark textures of the great African poets and American rappers. Yet I still tried to rap and I still tried to teach rap. It was the closest I felt I was going to get to understanding the puzzle of my blackness. I loved my students, their confusions and their enthusiasms. The lessons continued, and so did the teaching.

The final exam was an in-class performance of a piece of each student's own creation. One shy girl who barely said a word during class suddenly rapped aggressively to a very bass-heavy trap beat. One boy who had been the only one tapping his feet to the music I played performed a set of vers-

### With Our Thanks

It is our privilege to salute four outstanding contributors to Harvard Magazine for their work on our readers' behalf during 2017, and and to confer on each a \$1,000 honorarium.

Michael Zuckerman '10, J.D. '17—past president of the *Harvard Law Review*, now clerking for a federal judge in Ohio—combines analytical rigor with unusually fluid prose. We were fortunate to publish



Michael Zuckerman

"Criminal Injustice" (September-October), his penetrating feature on public-interest lawyer Alec Karakatsanis, J.D. '08, and are proud to award him the McCord Writing



Richard D. Kahlenberg

Prize, honoring David T.W. McCord '21, A.M. '22, L.H.D. '56, and his legendary prose and verse, composed for these pages and the Harvard College Fund. We recognized Zuckerman previously, with the Smith-Weld Prize for 2014—a testament to his broad, deep strengths.

Richard D. Kahlenberg '85, J.D. '89, a senior fellow at The Century Foundation, is recognized nationwide for comprehensive analyses of affirmative action, admissions, and equity in higher education. "Harvard's Class Gap" (May-June) combined that expertise with personal insight in a feature strongly grounded in the University today. We

honor his article with the Smith-Weld Prize (in memory of A. Calvert Smith '14, a former secretary to the governing boards and executive assistant to President James Bryant Conant, and of Philip S. Weld '36, a former president of the magazine), which highlights thought-provoking writ-

ing about Harvard.

Davide Bonazzi provided exceptionally thoughtful, engaging illustrations to accompany "The Watchers" (January-February), a feature on threats to privacy in the digital era—an unusually challenging as-



Maciek Nabrdalik

signment that required making tangible the abstract, virtual concepts being reported. And the portfolio of images of refugees, featured in "In Flight" (January-

February)—a sampling of the work of Warsaw-based documentary photographer Maciek Nabrdalik, then resident as a Nieman Foundation fellow—remains a haunting record of a continuing humanitarian tragedy. It is a special pleasure to work with such expert, consummate professionals, and to recognize their extraordinary craftsmanship.

—The Editors



es that might as well get a professional release. Some of the kids stumbled over their rhythm: some decided not to bother with following a rhythm at all. I was indiscriminately amazed by each of them, regardless of the quality of their writing. A bunch of Chinese students with absolutely no rap experience, with second-language English ability, absolutely killed it. In return, I showed them a little bit of my own rapping. Depending on the individual class group, I did either a longform freestyle—letting the words rush out of the top of my head, never really knowing where the syllables would take me, but going on nevertheless—or I performed some pre-written songs with beats produced by a friend, another Harvard student. Normally my favorite to perform is "Poet, Prophet," a nerdy little romp through metaphysics and literary spiritualism:

Listen to the glimmers of the solar system Simmering murmurings stretching 'cross the universe, this is my vision

As a poet as a prophet with the lyrics, man I copped it Caught a wave, detected it, and to this beat I drop it During the very last class, though, I opted for "Trippin'," the closest I've gotten so far to an explicit expression of my blackness. Typically, right before the big beat drop I punch a black power first in the air and roar, "YOUNG BLACK BROTHER FROM THE MOTHERLAND." I feel as if I perform another self when I rap, especially when I perform "Trippin." This rap persona is meant to be unabashed in the joy and experience of his skin, intimate with the longs and shorts of the beats, and able to jump across the stage in wild freedom, entirely himself. But I am not much of a performer. I am always reminded—through a slither of light or camera flash from the top of a balcony, a lyric that doesn't quite fit comfortably in my mouth, young black brother from the motherland that I am playing at something that I don't understand. Still, after each performance my students clapped for me, impressed by my play at black brazenness.

After the program ended, the Harvard Seminar leaders and the Chinese teaching fellows who'd helped us went on a little field trip through Hangzhou. We went to the famous market in Hefang Street and happened upon some of our students. We walked around, bought green-tea ice creams and other treats. Then we heard a steady thump of large men pounding rice into mochi, heaving a huge wooden pestle back and forth between them while singing with deep voices. One. Two. Three. Four. One. Two.

Three. Four. One of the other seminar leaders started beat-boxing while we continued walking, and I joined him with my rapping. My students began to record a video and we drew a small crowd. We kept walking and rapping, dancing, splaying black words all over this place far from where they were born. A few days later, I watched that video again and again as Hangzhou grew smaller by each second through the airplane window. I was confused by my pixellated self, sailing through Hangzhou's streets with a cool, lyrical breeziness. It didn't feel like me—no, not exactly.

The description for my class read, "Words define who we are. The better we are able to use them, the better we are able to understand ourselves, each other, and even the world around us." By the end, I was deeply

impressed by my kids' work. But I remained as confused about black words as ever, and now that I am back at Harvard, my thoughts about this aren't much clearer. I have temporarily suspended actual lyric-writing in a small effort to get my academic life together, though I still skip from one part of the Yard to another, muttering freestyles to myself, between classes. If not too many people are around, the words become audible and I jump a little and wave my hands between the beats. I still do not have the rhythm perfectly together. I am still out of step. I am still confused about my skin. I still speak these black words.

Berta Greenwald Ledecky Undergraduate Fellow Tawanda Mulalu '20 expects to fly back to Hangzhou this summer..

### SPORTS

## Not Our Year

A humbling defeat in The Game caps Harvard's dreariest season in 17 years.

N THE MIDDLE of the second quarter of the 134th playing of The Game, heavily favored Yale had just forged ahead of Harvard 7-3 on a nine-yard

touchdown pass from quarterback Kurt Rawlings to wideout IP Shohfi. Now freshman Crimson quarterback Jake Smith was looking to get those points back. On second down and 17 from the Harvard 16, Smith ran an option play to the left. After gaining a few yards, he tried to pitch the ball to freshman halfback Aaron Shampklin—but threw it behind him. The ball bounded free and was

He's gone! Against Lafayette, junior Justice Shelton-Mosley scored on an 85-yard punt return. scooped up on the 19 by the Elis' Malcolm Dixon, who ran unimpeded into the end zone. When Alex Galland booted the extra point, Yale led 14-3. The two touchdowns





Happy return: Junior Adam Scott took the second-half kickoff against Lafayette for a touchdown.

in 55 seconds set the tone for the game, in which the Elis cruised to a 24-3 victory. Only a staunch effort by the Harvard defense kept the margin from being greater.

The loss dropped the Crimson to 3-4 in the Ivy League, tying Harvard for fifth place with Cornell, and 5-5 overall. This was the first season since 2000 that the Crimson had not won at least seven games. Yale's victory—its second straight in The Game—gave the Elis a 6-1 league mark and a 9-1 overall finish. The triumph also allowed the Bulldogs to hold off Dartmouth and surprising Columbia and bring to New Haven Yale's first outright Ivy title since 1980. The Crimson did not score a touchdown in the final nine quarters of the 2017 season, the longest such stretch of futility since the 1986 season, when Harvard suffered three straight shutouts.

"The bottom line is, Yale is a terrific football team," said Harvard coach Tim Murphy, whose record in The Game is now 17-7. "They're by far the best football team in our league. They have no real weaknesses, and they deserved to win."

This was a rackety, roller-coaster season, one replete with struggles. Murphy tried two quarterbacks, Smith and fifth-year senior Joe Viviano. Each had his moments, but mainly, the football adage held: If you have two quarterbacks, you have no quar-

terback. The offense worked fitfully, and once foes began to key on stellar junior back Charlie Booker III, the running game became predictable and less productive, gaining a pedestrian 122.3 yards per game in Ivy clashes. (Booker missed the Yale game because of an injury.) With the rushing attack unable to keep rival defenses

honest, opponents often were able to devote double-coverage to the Crimson's two star wide receivers, juniors Justice Shelton-Mosley and Adam Scott. Shelton-Mosley, who had averaged six catches a game in 2016, averaged 3.6 in '17. In '16 Scott had averaged 6.4 receptions, in '17, only 2.3. Sorely missed were two of 2016's drive sustainers: solid senior running back Semar Smith (out for the season with a foot injury) and All-Ivy tight end Anthony Firkser '17, the classic "possession receiver," who made many eye-popping catches on third downs.

The defense also suffered key injuries—most notably, to its best sacker, junior defensive end DJ Bailey. But led by senior line-backer (and captain) Luke Hutton, and the redoubtable senior defensive back trio of Tim Haehl, Tanner Lee, and Raishaun McGhee, the D hung in there valiantly.

There were no easy games. Complicating matters was parity. The Ivy League was at its most balanced ever, "the strongest top-to-bottom in the 24 years I've been here," said Murphy. With two weeks left in the season, seven teams (all except Brown) had a mathematical chance to share the title. For all its difficulties, Harvard won a couple of games it probably should have lost.

The Crimson's opener, a 17-10 upset road loss to non-league foe Rhode Island, gave a hint of what was to follow, but the score was overshadowed by a traumatic spinal-cord injury to promising freshman defensive back Ben Abercrombie. After surgery at Rhode Island Hospital, Abercrombie was trans-

ferred to Atlanta's Shepherd Center, which specializes in spinal-cord and brain-injury rehabilitation. The Harvard Varsity Club has responded by establishing the Benson M. Abercrombie '21 Fund, which will help defray the medical costs incurred by Abercrombie and by any future Harvard student-athlete who suffers a "severe or catastrophic" injury during College-approved practice or competition. (At season's end the fund had raised \$220,000.)

The next two weeks seemed to promise business as usual: a 45-28 victory over Brown in the home opener, and a 41-2 thrashing of overmatched Georgetown at RFK Stadium in Washington, D.C. (see "A Rugged Start," November-December 2017, page 38). Which is why it was a distinct shock the following week when the Crimson traveled to Ithaca, New York, and came away with a 17-14 loss to Cornell. In the Ivy preseason poll, which had tabbed Harvard as co-favorite with Princeton, the Big Red had been picked to finish dead last. The early going seemed to confirm that so-called wisdom. On Harvard's first series, Jake Smith, making his third straight start, took the Crimson 72 yards in six plays for a score. Harvard built its lead in the second period. Facing a third-and-13 from the Big Red 36, coach Murphy ordered a timeout. What he drew up worked brilliantly. On the next play, Smith found senior tight end Jake Barann wide open in the middle of the field. Barann made a finger-tip catch and ran into the end zone. Harvard 14, Cornell o. But with 40 minutes left to play, the Crimson had scored its final point.

As the Big Red tallied 17 unanswered points, the remainder of the game uncovered two weaknesses that would plague Harvard the rest of the season: the inability to mount drives, and the failure to stop the opponent's elite runner. Chris Walker, the Big Red's All-Ivy running back, did an impressive Ed Marinaro imitation, time and again ripping through the line. He finished with 93 yards on 19 carries. Those rushes helped Cornell win the time-of-possession battle by a staggering 36:50 to 23:10; on the season, Harvard's possession time In Ivy games averaged a substandard 27:51. The Big Red ran 77 offensive plays to the Crimson's 44. The Harvard offense's inability to stay on the field in the second half had a fatal corollary on this unseasonably warm day: its hard-pressed defense wore down. It didn't help that the Crimson was missing three injured starters: Bailey, senior defensive tackle Stone Hart, and junior linebacker Anthony Camargo.

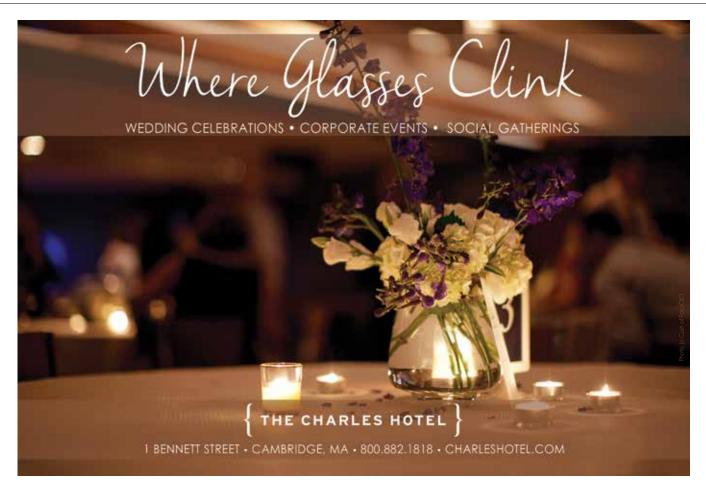
THE NEXT WEEK brought the 700th game played at Harvard Stadium, and the Crimson celebrated by whipping non-league foe Lafayette 38-10. Shelton-Mosley ignited Harvard with an 85-yard punt return for a score. In the first period, after the Crimson defense forced the Leopards into a threeand-out, Lafayette's Michael Turk boomed a high, 50-yard punt to the Harvard 15. Shelton-Mosley fielded it and, sprung by a dandy block by junior Noah Reimers, wove his way upfield along the Crimson sideline, then outran the final pursuers to score. This was Shelton-Mosley's third career punt return for a touchdown. On the second-half kickoff, Scott produced another Harvard happy return—or, as Murphy refers to a kick return for a touchdown, "a house call." Scott grabbed the football on the Crimson 10. Keyed by a downfield block from Shelton-Mosley, he was off to the races. For one Saturday afternoon, all seemed back on track. It wasn't. The following Friday night in the Stadium, Princeton obliterated Harvard 52-17. The 52 points allowed were the most by an opponent in the Murphy era. The margin of defeat was the largest since a 52-13 demolition at Penn in 1988, and the largest loss since 2002, when the Crimson was drubbed 44-9 at Penn. It was also Harvard's first defeat in a Stadium night game after 14 wins.

That evening, there was no stopping the quick-snapping Tigers and their quarterback Chad Kanoff. In building a 31-10 halftime lead, the Tiger senior was scorching, completing his first 20 passing attempts. (He added another completion in the second half before his string was snapped; at game's end he was 31

**Mister Precocity:** Freshman quarterback Jake Smith engineered a comeback win against Dartmouth.

for 35, for 421 yards and two touchdowns.) Harvard's Smith did his best to riposte, but it was like a good middleweight trying to counter a superb heavyweight. The youngster kept on flinging, and finished a creditable-looking 20 for 31 passing, for 268 yards. Still, it seemed that Princeton was ready to ramble not only to the Ivy title but to the Su-





per Bowl. Instead, the Tigers unaccountably lost their next four and finished in seventh place. Go figure.

A week later, concluding a three-game homestand, the Crimson fell behind Dartmouth 14-0. The season was in danger of spiraling irrevocably south. Or, as captain Hutton expressed it, "You can either fold,



Grab and go: Junior wideout Henry Taylor went over Columbia's Landon Baty for a catch that became a 65-yard touchdown.

or you can bounce back. Down 14-0, it's all heart." Behind the resourceful Smith, Harvard bounced back, rallying for a 25-22 win. The game turned on a freaky occurrence near the end of the first half. Senior Zach Schmid punted to Dartmouth's Danny Mc-Manus, who fumbled the ball when hit by Crimson senior Jack Stansell. Harvard freshman Max Jones recovered at the Big Green 38. But Dartmouth protested, objecting that Stansell had interfered with McManus. The officials conferred, then ruled that Stansell was blocked into McManus by a Dartmouth player. So the Crimson kept the ball, and an irate Big Green assistant coach punched out a press-box window. (Dartmouth suspended him indefinitely.) Smith took advantage, guiding Harvard to a touchdown in six plays. The biggest was Smith's own 16-yard scramble on fourth-and-eight. The capper was an eight-yard toss to senior tight end Ryan Antonellis with 13 seconds left in the half. In the second half the Crimson put 19 more points on the board, then held on thanks to a last-ditch interception by Lee.

Smith finished 18-for-35 passing, for three touchdowns and (significantly) no interceptions. He also ran nine times, many of them sinuous scrambles, for 64 yards. Said Murphy afterward: "I've seldom been prouder of a football team."

The next week in New York City against resurgent Columbia, though, Smith came a

cropper, throwing four interceptions. Saving the day was Viviano, who by all accounts had accepted his relief role with grace and class. The senior took over and guided the Crimson to three touchdowns while the defense held the Lions to two in a nail-biting 21-14 win. The victory was preserved when reserve sophomore linebacker Joey Goodman batted down two Columbia passes in the end zone during the final minute. "The defensive effort was just so heroic," said Murphy, "and those kids weren't going to settle for anything other than getting off that field with a win."

AMAZINGLY, given all the Sturm and Drang, Harvard still had a chance to gain a share of the Ivy title. Those hopes were snuffed out by a lackluster home effort against Penn. The Quak-

ers scored on their first offensive play—a 77-yard run by Tre Solomon—and dominated throughout a 23-6 victory. The game, in which Harvard's only points came on two field goals by sophomore Jake McIntyre, marked the first time the Crimson failed to score a touchdown since September 19, 1998, when Harvard was shut out at Columbia 24-0. At the end of the third period, Murphy performed another quarterback shuffle, replacing Viviano with Smith, to little avail. "We never really had any great momentum offensively," Murphy said. For all that, the Crimson had its chances. "But we did not capitalize on our opportunities," the Harvard coach summed up.

The following week, in The Game, the Crimson's high-water mark came on their first offensive series. Smith engineered an 11-play, 55-yard drive that featured three completions to Shelton-Mosley, the first for 21 yards, the second for nine, and the third for 18. (Shelton-Mosley finished with a game-high seven grabs, for 77 yards.) This seemed like a plan, especially in the absence of Booker. But as so often happened late in the season, the drive bogged down in the shadow of the opponent's goal. So McIntyre

came in and drilled a 29-yard field goal. Harvard 3, Yale o.

Thus pretty much concluded the Crimson offensive portion of the day. Harvard was limited to 164 yards gained, minuscule by any standard. At the beginning of the fourth quarter, the Bulldogs enlarged their lead to 24-3 on a two-yard run by Zane Dudek. The day was Blue indeed.

The momentum of The Game, for nine years in Harvard's favor, has now swung. Likewise, after having dominated the league for so long, the Crimson is 3-6 in its last nine conference games, and the overall victory total has fallen in successive years from 10 to nine to seven to five. So in 2018 Harvard will face not only a more rugged league but also a challenge it has not encountered in some time: a bounce-back season.

TIDBITS: Defensive back Zach Miller '18 ('19), of Houston and Winthrop House, was elected the 145th captain of Harvard football, for 2018. During the 2017 season Miller, whose field of concentration is economics, was credited with 8.0 tackles....Six Harvard players received All-Ivy recognition. Junior Justice Shelton-Mosley, the league's top punt returner, was a unanimous first-team selection as a special-teams player. Junior running back Charlie Booker III was also named to the first team. Three seniorsdefensive lineman Stone Hart, linebacker Luke Hutton and defensive back Tanner Lee—were named to the second team. Junior defensive lineman Richie Ryan received honorable mention....The 145th season of Crimson football will kick off on September 15 at Harvard Stadium against San Diego. And mark your calendars: the 135th playing of The Game—coinciding with the golden anniversary of Harvard beating Yale 29-29—will take place on November 17 at Fenway Park. ∼DICK FRIEDMAN



### "No Secrets about How to Get Faster"

HIS CHILDHOOD SWIM COACH Was always careful not to lay too heavy a burden on Dean Farris by telling him just how good he was going to be. But Mike Norment knew. Farris '20—whose rookie season with Harvard last year included a string of broken records, a fourth-place finish in the NCAA tournament, and one particularly beautiful, breathtaking win in the 200-meter freestyle at the 2017 Ivy League championships—was just nine years old the first time Norment saw him swim. Farris had been competing in summer leagues around Atlanta since he was seven, and he'd recently begun swimming year-round. "From the first lap, I was taken aback at how talented he was," says Norment, himself a former world-ranked swimmer and a member of the U.S. national team. Farris was a skinny kid, tall for his age, a jumble of right angles. Still, Norment says, "He was very aware of his body. It's like recognizing a mathematical genius at nine years old. You could see he'd figured it out." Farris moved through the water like someone who



was seven or eight years older.

Under Norment, for whose club team he swam throughout high school, Farris won two junior national championships and two Georgia state titles, and qualified in four events at the 2016 Olympic trials. Now, a decade later, he's grown to six feet, seven

inches, and, in the year and a half since arriving in Cambridge, he's added more than 30 pounds of muscle to his frame. In his first year, he found a prominent place on Harvard's roster as a short- to mid-distance swimmer, from 50-meter sprints relying on quick turns and bursts of power to 200-me-



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ter races requiring a little more pacing and endurance. In the season's first meet, he took individual wins in the 100-meter freestyle and 100-meter butterfly against Dartmouth and Cornell; after that, he rarely failed to take first place anytime he was in the pool. He finished the regular season with 12 individual wins in dual meets. The Crimson's relay unit, on which Farris won a spot, never lost during the regular season.

The climax, though, was last year's Ivy championships in February, which Harvard hosted at Blodgett Pool. The craziness of that week didn't really hit Farris until later. In the moment, as he and his teammates were winging their way from one end of the pool to the other, dominating almost every opponent in almost every event on their way to Harvard's first conference title since 2014, a weird calm took over. "It just kind of seemed normal," Farris says, "because that's how our season was going." He won seven events, including that 200-meter freestyle, which he finished more than two seconds ahead of the second-place swimmer. By the second lap, the race was basically decided; after that, it was just a matter of seeing how fast he would be. His final mark was 1:31:56—the fastest in college swimming that season. (That earned Farris a top seed in the NCAAs a month later, where he finished fourth in the 200 free behind three former Olympians.)

The Crimson walked away with 1,705 points that week, the most in Ivy championship-meet history and 370 more than runner-up Penn. Farris won the Phil Moriarty Award as the high-point swimmer. "We basically didn't even have to show up

the last day to win," he says, with wonder more than swagger. "It was just incredible."

THAT'S THE KIND OF JOY that Ulen-Brooks coach Kevin Tyrrell describes in his standout sophomore. "Dean is smiling on the pool deck when he walks in at 6:30 in the morning," Tyrrell says. "He's happy to be there, he wants to learn, he wants to make good stuff happen." Coaching him is as much a Socratic exercise as a prescriptive one: "A lot of conversations, a lot of questions"—about how to be more efficient, how to generate more power, how to fine-tune his form. "We're trying to help him develop his own awareness," Tyrrell says, "because he's got to be able to think and make decisions out there based on the race that he's in and the training that he can take advantage of."

Norment has similar recollections. In 2013, having coached for several years at the club where he first saw Farris, Norment left to start his own swim program, Metro Atlanta Aquatic Club. Farris and a handful of other swimmers followed their coach. The team was tiny at first. Five of them had grown up together in the pool, a tight-knit little unit. "And they all looked the same: they were bony, they were skinny, and they had no body strength," Norment recalls. "Couldn't do a pull-up. But they looked really good in the water." And they showed up every single day. "If the pool was closed for whatever reason, they would immediately text me and say, 'Coach Mike, can we go to the Y and do a workout?' So they were committed, and their families were committed." Two years later, four of those swimmers made the Olympic trials... "and Dean was at the center of that. In

terms of his ability to outwork and outthink everybody that he's trained against—he finds a way. He's a quiet, low-key kid, but he's a fierce competitor, at all times. He's willing to hurt more than the person in the lane next to him. That's what makes him different."

Farris remembers the year he decided to go all in on swimming. He'd been splitting his time between the pool and the soccer field, where he played goalie. By the time he was 12, it got to be too much. His parents (athletes themselves, who'd played football and volleyball in college) left the choice up to him. Farris loved soccer, but he suddenly realized that he couldn't imagine his life without swimming. "It keeps me grounded," he says. "What I love about swimming is that the hard work you put into it shows at the end of the year. There are no secrets about how to get faster." That fact buoyed him when he was 14 and 15, looking around at kids his age who were heftier than he was, and suddenly just as tall. "Those were frustrating years—everybody else grew and I kind of didn't grow. But I had a good work ethic, and so I kept getting faster." And, eventually, taller.

At a mid-November practice at Blodgett Pool, two days ahead of the Crimson's road trip to Columbia for the second meet of this season, that work ethic was on display. So was his speed. This was a "threshold practice," conducted at race pace, and swimmers pounded out laps, their shoulders heaving when they touched the wall and lifted their heads out of the water to rest or to listen for guidance from Tyrrell and assistant coach Samantha Pitter.

Last year, Farris swam mostly backstroke and freestyle, two strokes requiring especially strong balance and the ability to stay horizontal in the water. "That's where I excelled," he says. But this season, he wants to expand his range, compete in individual medley races that use all four strokes; that's how he swam in high school, all options open. "It keeps the mind fresh," he says. "I think I'm going back to the mentality of swimming everything, rather than focusing on one or two things, because I think it makes me better. You don't get burned out." In heat after heat with his teammates at the November practice, Farris swam the gamut: freestyle, backstroke, butterfly, breaststroke. Most of the time, he was out in front of the others, often by a body length or more, arms slicing in and out of the water as he churned forward, arching toward another finish.  $\sim$ LYDIALYLE GIBSON



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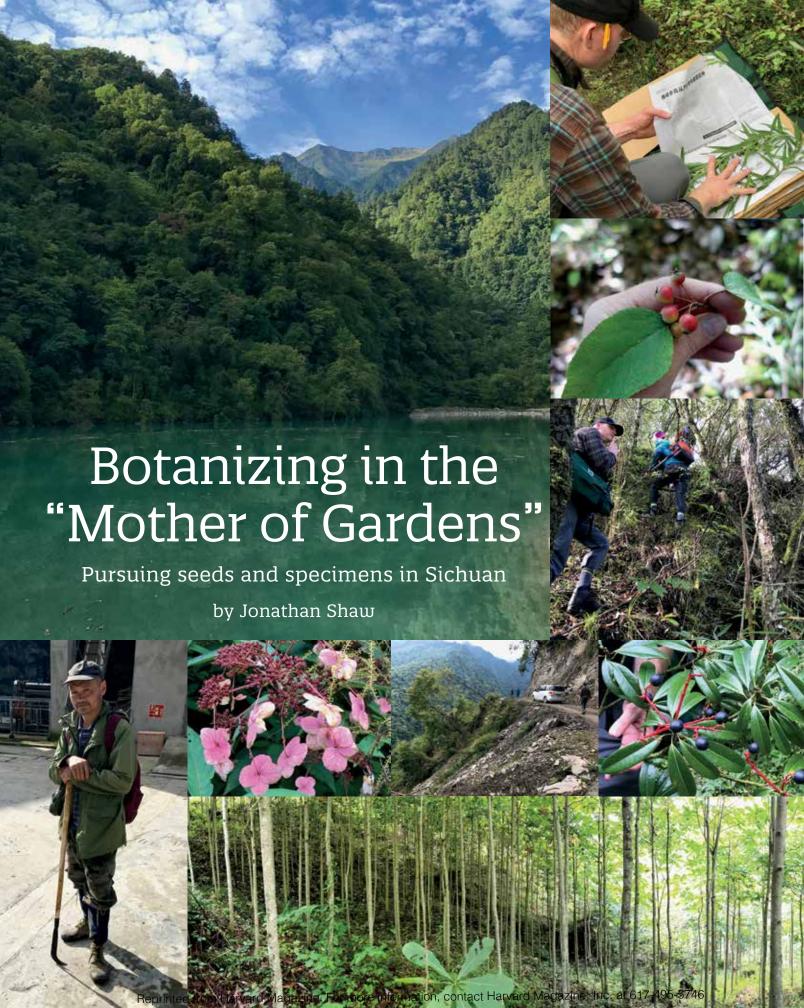
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HE FIRST THING the explorers noticed when they reached the dam was that their guide was wearing gaiters that stretched above his calf. Everyone knew what it meant: there would be terrestrial leeches on this hunt. The second thing they noticed was the guide's long, wood-handled tool, with a short, curved iron blade. He was leaning on it as the team exited the van, while he ran a critical eye over everyone's attire. He said a few words in Chinese, and Wang Kang, a seven-time veteran of these expeditions, relayed their meaning to the Americans. "Tuck your pants inside your socks,

and then put rubber bands around the top. The leeches will try to get inside your socks."

Though it might seem like a commission from another century, the hunt to locate and collect rare plants from around the globe so they can be grown for scientific study and long-term observation is very much alive, and carries new urgency. One in five plant species \( \frac{1}{2} \) on Earth is endangered. Changing patterns of temperature and rainfall, competition from invasive species, and loss of habitat are spurring new exploration—particularly in biologically rich areas.

Though only slightly larger than the United States, China—spared during the Pleistocene glaciation that ended 11,500 § years ago—has three to four times North America's botanical diversity, making it a natural \$\\\| place to search for rare and unusual plants. The prolific explorer & Ernest Henry Wilson, who collected on behalf of Harvard's Ar- 5 nold Arboretum from 1907 to 1922 \$ and is credited with introducing more than 2,000 plants from Asia to Western horticulture, called China the "mother of gardens." He elevated temperate Sichuan Province, slightly larger than Califor-

nia, a step further, calling it "the garden of China."

So it was that a two-week expedition there last September brought plant hunters—botanists in the North America-China Plant Exploration Consortium (NACPEC), including representatives of the arboretum—back to beautiful, challenging terrain. The group is part of a larger effort focused on collecting wild specimens from across their full geographic range, at altitudes high and low; the goal is to capture the variation, and underlying genetic diversity, within species. Differences between one isolated population and the next range from the observable or aesthetic—the color of the bark, leaves, or flowers that might catch a gardener's eye—to the functionally important: cold hardiness, heat and drought tolerance, or disease and pest resistance.

The team on this particular trip—Michael Dosmann, the arbore-

tum's keeper of the living collections, and Andrew Gapinski, manager of horticulture there; Wang Kang, director of education at the Beijing Botanical Garden, and Quan Jian, assistant to Beijing's manager of living collections; and graduate student Li Huaicheng from Chengdu's Institute of Biology—gathered in Chengdu, the capital of Sichuan, on September 19: late enough in the season for fruit and seeds to have set, but before leaf- and snowfall. The next day, after picking up supplies at the institute—portable plant presses, seed-collection bags, and a telescoping, 12-foot pole pruner that clips and then holds specimens—they drove north, stopping once

for gas at the last known filling station on their route, where the fuel had to be siphoned from oil drums. Their destination was a 245-square-mile national nature reserve in the heart of the Min range, named after its highest mountain, 18,334-foot Xuebaoding (Snowy Treasure Peak).

In other words, the expedition team (with an observer from this magazine) was about to enter the heart of hardy plant biodiversity. The contemporary collectors had certain advantages over Wilsonairplanes, motorized vehicles, and GPS mapping—instead of reliance solely on foot, pack animals, and a 25-person entourage of hired laborers. But once in the botanically rich, undeveloped parts of China, twenty-first-century plant collecting is still rough work.

And so they shouldered their packs, grabbed their equipment, and followed their guide, clearing the way with his reaphook, across the dam and into a bamboo thicket. From the river's edge, the terrain rose sharply, requiring hand-over-hand climbing. After 25 minutes of thigh-burning ascent, they reached the top of a ridge, elevation 6,000 feet—where they discovered that they'd taken this



The Arnold Arboretum's Michael Dosmann with a Rodgersia leaf and plumes of Astilbe grandis. Opposite page, clockwise from upper left: the lake above the dam at Si'er Cun, with the Min Mountains beyond; collecting a voucher specimen; fruits of the tea crabapple; climbing a ridge; fruits of Phoebe faberi; a plantation of Magnolia officinalis; Wang Yongming, the group's first guide; Hydrangea bretschneideri; the end of the road for the van

route because the guide believed they wanted to see a giant panda.

The misunderstanding was amusing, but also fortuitous, because it led to several desirable plant collections. Atop the ridge, the fruits of a lanky crabapple tree, reaching for light in a forest of bamboo (a staple in pandas' diet), immediately registered with Dosmann, who recognized Malus hupehensis, the tea crabapple. More than a century earlier, Wilson, the first keeper of the arboretum (Dosmann is just the second to hold the title), had discovered this tree in Hubei Province; he considered it the finest deciduous flowering tree he had introduced to Western cultivation. In spring, deep pink buds fade to white as the floral display crescendos; in fall, ornamental yellow fruits tinged with red produce a second show, evident even in the latticework shade cast by the bamboo canopy.

As the group deposited the tiny crabapples in a muslin collection bag, monkeys began calling. "Apparently, they like this species of *Malus*," Dosmann wrote in his field notes, "and may not be happy that we are collecting it." For each acquisition, he recorded place name, GPS coordinates, elevation, habitat, slope, soil type, measurements, and a description of the plant (including bark, leaves, any fruit or flowers), and other species growing nearby.

While Dosmann logged these observations, Gapinski prepared five voucher specimens, or representative samples. After carefully selecting characteristic terminal branches that included stems, leaves, and fruit, he laid them on a sheet of newsprint labeled with the scientific name and the collection number, beginning with ooi. Then he covered them with another sheet, and sandwiched the whole between two pieces of cardboard. These he stacked and loaded into a portable press resembling a bicycle courier's pouch, cinched tight with straps, which he threw over his shoulder—the first step in a journey to herbaria at Harvard, the National Arboretum in Washington, D.C., the Beijing Botanical Garden, the Chengdu Institute, and a regional herbarium in Pingwu.

### A Broadened Scope of Field

SINCE 1991, a dozen Chinese and North American member institutions of NACPEC have shared the costs and the rewards of these roughly biennial expeditions to China. The aims include conser-

vation, evaluating and introducing appropriate new species, selecting ornamental forms, broad sampling of the wild genetic pool of species already in cultivation, improved understanding of botanical diversity in China—and better national and international collaboration among botanists. Wang, an exemplar of this latter aim, has brought deep knowledge of China's flora, as well as logistical expertise, to seven such trips. For example, when an August earthquake upended the

original 2017 itinerary, which circled the Min mountains, he arranged a new route at the last minute: right to the middle of the botanically rich range, for four days of collecting. Wang also did all the driving. Blind corners on the road, mudslides, and washouts alike left him unfazed.

Although the arboretum has participated in plant-hunting expeditions since the 1870s, including those to China, it has recently stepped up the pace, intensity, and breadth of its collecting, as part of a 10-year effort targeting 400-plus species from around the globe (see "The Plant Prospectors," July-August 2016, page 37). Recent expeditions have ranged from Idaho to coastal North and South Carolina, and from China to the Republic of Georgia. A visit to Japan is planned next year.

In the past, Dosmann might have been the sole representative collecting on the arboretum's behalf—he has been to China eight times—but the scale of these broadened efforts has involved other botanists on the staff. Gapinski, for example, explored the Republic of Georgia in 2016. And although he had been to China just once, he is familiar with many of its plants as manager of the horticulturists who care for the arboretum's trees and shrubs, a quarter of which hail from that country.

### The Pillared Forest

As the group hiked upslope deeper into the forest, Dosmann noted species characteristic of this region: a smallish magnolia, whose leaves when crushed smell like anise (Magnolia liliflora); the common birch-leaved viburnum (Viburnum betulifolium, a species so highly variable that Wang made it the focus of his Ph.D. dissertation); and a towering, thick-trunked specimen of Betula albosinensis, a birch that doesn't like the extremes of the North American climate, he said. Amid such abundant botanical riches, knowing what not to collect proved a critical skill.

Moving into progressively older, more densely shaded forest, the explorers found that the trees had grown so tall, they frustrated sampling, and even Gapinski's height—he is six-foot-five—combined with the 12-foot telescoping pruner could not help. From the ground, they stared longingly toward the remote canopy or in wonder at thick trunks of birch and larch so tall that it was hard to connect them to their crowns, making it hard to identify the species. Even a climbing hydrangea they hoped to bring home had grown so high that it had set no seed within reach.

While they walked, Li Huaicheng, who had come to gain experience in fieldwork, shared some dried yak meat to stave off prelunch hunger.

Eventually, they entered a light-filled glade beneath an opening in the dense canopy, where they saw a large, open-crowned tree with

what looked like foot-and-a-half long streamers cascading from high branches: a towering, large-winged wingnut (*Pterocarya macroptera*), a relative of hickory. The streamers were actually strings of connected, winged seeds. Dosmann, who has curated the arboretum's living collections since 2007, was eager to acquire this tree because the specimen growing in Boston, collected in 1997 from Emei Shan, a mountain to the south, is not reliably hardy.

But repeated, powerful throws by Gapinski, attempting to rope a limb, fell just short. Unwilling to admit defeat, one of the party wrapped his arms and knees around the moss-covered, branchless trunk and began inching his way up. Seeing this apparent act of desperation, the guide intervened, indicating that there was another specimen uphill with lower branches where they could collect seed without difficulty.

Along the way, they passed an enormous larch, the ground beneath it strewn with cone-bearing limbs (thrown down by monkeys, according to the guide). Dosmann decided to collect specimens and seed: this was the Sichuan larch (*Larix mastersiana*), a tree discovered by Wilson in 1908. The species once grew in large stands, but was harvested for its wood and is now endangered in the wild and rare in cultivation.

After collecting from the smaller *Pterocarya*, the party headed back to the river, descending through a plantation of *Magnolia of ficinalis*, a plant Wilson introduced to the West that is cultivated for its medicinal bark. They arrived at the dam just in time to see a poisonous snake being rescued from a sluiceway by a workman: scooped into a galvanized wire basket and released below.

By then it was 4 P.M.; the guide mounted his motorcycle and drove off. But rather than ending their day as well, the collectors decided

While they walked,

shared some dried

pre-lunch hunger.

yak meat to stave off

Li Huaicheng

to see what they could find along the single-track gravel road that climbed sharply to the northeast above the dam. They found *Euptelea pleiosperma*, a tree with attractive leaves and stunning reddish samaras (scarlet clusters of hanging seeds), a small ash (*Fraxinus paxiana*), and a Chinese hemlock, where they narrowly avoided losing the cones to a river at the bottom of a cliff (see "Hunting a Hardy Hemlock"). Racing against sunset after bagging their hemlock quarry, the explorers were tempted by one final target: an Oliver maple (*Acer oliverianum*) that caught Dosmann's eye, with its broad, palmate leaves in glorious scarlet, orange, and yellow fall colors. This species—almost unknown in the United States—was one of the desiderata on the arboretum's master list. Although it would normally be marginally hardy in Boston, he knew that a mountain specimen would have a good chance of surviving. (Later in the expedition, the group collected more seed from a potentially hardier specimen at an even higher elevation.)

As the light began to fail, Wang swiftly drove the group back down the narrow road to their base, a forest-ranger station in the tiny village of Si'er. He did not want to drive these mountain roads, easily blocked by rockslides, in the dark. (While driving up to Si'er from Mianyang, the nearest large city, on the previous day, the group had counted more than two dozen slides, some still being cleaned up.) What happened to E.H. Wilson—whose career as a botanical explorer had nearly ended with a rock slide that broke one of his legs as he hunted the Regal Lily (Lilium regale, which he called "a jewel beyond price")—began to seem less like a freak accident and more like an occupational hazard. (For more about Wilson, see "Lilies for 'Chinese' Wilson," March-April 1986, page 50.) Monsoon-like fall rains that coincide with the time that plants set seed, peppered with the occasional earthquake, can set mountainsides in motion. So it was no surprise when Dosmann had to leap from the van on the descent to roll a large rock out of the road.

Back at the ranger station, the collectors took stock. One of the party had been bitten on the ankle by a leech, bloodying a sock and boot. But otherwise, though tired from the day's hiking, everyone was in good shape—and there was still work to be done. They

laid seed on newspaper to dry in a hallway outside the bedrooms. (Full drying would have to await the expedition's return to an airconditioned space: the ranger station was located in a humid site directly above the Si'er River. Nothing, from socks to seed, would dry completely here.)

After dinner seasoned with the region's distinctive Sichuan pepper (a species of *Zanthoxylum*), the group gathered in the office of station head Zhe Yue. Dosmann, armed with a magnifying loupe, began "keying out" species, making positive identifications of plants he had not been able to definitively classify in the field, such as the larch and the maple. Finally, at 11:00 P.M., the day's tasks were done.

### **Riches of Roads and Rivers**

The Next three days of collecting differed markedly from the first: there would be no more bushwhacking. In the fading light of that first day, the group had in two hours collected as many plants by the road as they had during the prior seven in the forest. As Dosmann explained, collecting from the slopes above and below paths, roads, and rivers can often be more productive than exploring a forest. Plants on the edges of open spaces have less competition, get more light, and are therefore more likely to set seed. They are also easier to spot and, absent competition for light, they tend to branch lower, putting their seed within reach.

Each day, the group would use flagging tape to mark species they wanted to collect during their ascent, then gather specimens as they retraced their steps on the way back down. This would cut down on the weight they carried, and also lead to better decisions about what to collect. With this strategy, the pace of collecting would increase dramatically. And on their second day doing this, they would find a treasure—a tree that hadn't been collected in more than a hundred years.

The expedition resumed the next morning, when the collecting party met their guide at 7,000 feet beside a river in a valley east of the dam. Though the site was not far from the previous day's explorations, the plants were completely different—a vivid illustration of Wilson's

### **Hunting a Hardy Hemlock**

Toward the end of the first day of the 2017 NACPEC expedition to Sichuan, the collectors saw evergreens from across a reservoir that they thought might be Chinese hemlock (*Tsuga chinensis*). Until the 1980s, specimens of this tree growing in the West could all be traced to a single E.H. Wilson introduction. In the 1990s, the species demonstrated resistance to an adelgid that had begun wiping out hemlocks (*Tsuga canadensis*) along the east coast of North America (see "A Hemlock Farewell," July-August 2014, page 8), making it a priority to acquire more of the Chinese variety.

Upon closer inspection, although there were three or four hemlocks, just one had cones, and only on a single branch that grew beyond a slope ending in a precipice that dropped 50 feet to the river below. The next thing I knew, I was up the tree with a handsaw—7,500 miles from home and hours from the nearest hospital—swept up in the thrill of the hunt. When half cut, the heavy branch swung slowly down within Andrew Gapinski's reach, but just as the green fronds began to settle gently into the side of the slope, the limb snapped. For a few precarious seconds, the freed

butt balanced, perfectly vertical, with the heavy cut end up. And then it wavered, teetering toward the river. "NO, NO, NO, NO, NO," yelled Gapinski. The heavy butt, if it somersaulted, would pull the limb into the river—and all the cones with it.

And then somehow, as if defying physics, the butt slowly eased back past vertical toward the tree. Below, Gapinski grabbed a branch and yelled, "Got it."

The next time I was gripped by treeclimbing fever, when the stakes were much higher, collecting seed from a rare beech (see main text), we took no chances—the limb was roped in.



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rapture about Sichuan's unique diversity. Dosmann immediately spotted *Cercidiphyllum japonicum*, or katsura (as it is known in Japan), growing from the rock wall on the opposite bank. He knew this plant better than any other—he'd studied it extensively and written a thesis on it—but, remarkably, given his wide travels in Asia, had only been able to collect it from the wild once, in 1999.

Despite the cool weather, flowers were still blooming, including yellow ligularia (a Wilson introduction to Western horticulture, circa 1900). Along a path beside the river, the group gathered a dogwood (*Cornus bretschneideri*), with its small blue-black fruits, then *Hydrangea bretschneideri*, its late-season blooms held on delicate panicles.

Wang placed the whole hydrangea flower head in a bag, he explained, because hydrangea seed are so small and light that once dry, a single sneeze could blow them all away. They gathered moisture-loving herbaceous species, too: a six-foot Astilbe grandis; and Rodgersia, with large, horse-chestnut-like leaves that had spread almost like a ground cover between the path and the river.

In the river's floodplain, the group collected Engler oak (Quercus engleriana), with unusual, elongated, lanceolate leaves; seedpods from a 6-foot-tall flower called cardiocrinum—narrowly avoiding a poisonous caterpillar feeding nearby; and the toxic fruits of a handsome phoebe tree (Phoebe faberi). Dosmann was skeptical that the phoebe, a broadleaved evergreen, could survive a New England winter. But it held bewitching, midnight blue fruits on bright vermillion stems, set off by rich, deepgreen leaves. The tree might thrive at a NACPEC partner institution farther south.

After forming a human chain to hold Wang as he leaned over a ravine armed with the tele-

scoping pruner, they clipped nutlets from a Chinese linden (*Tilia chinensis*). Like the American and European varieties, seeds of this linden attach to leaves that spin when they fall, helicoptering to the ground, to the amusement—especially—of children.

Not far from the phoebe, the group collected a small-leaved holly (*Ilex bioritsensis*), notable for its hypodermic-like barbs. But Dosmann turned down the prospect of collecting from a huge yew (*Taxus*), though the seeds were strewn abundantly on the ground. The plant is at risk because its berries have anti-cancer properties, and is therefore protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora. Dosmann's

ambivalence stemmed in part from the prospect of bureaucratic entanglements when shipping seed home.

Back in Si'er that evening, the glowing coil of an electric hot plate took the chill out of the night air in the station head's office, as the botanists removed seeds from collecting bags and placed them in disposable paper bowls to dry. Into the evening, Dosmann focused intently on his field notes, working out species identifications for the day's collections before finally heading to bed.

### **Tracking Wilson**

For the Arboretum, one of the great troubles in attempting to

diversify the wild origins of its earliest Asian plant introductions—ensuring that they come from across the species' geographic range—is that nobody has ever been able to accurately reconstruct Wilson's travels through China. Even Wilson himself, who wrote about his journeys many years after the fact, may not have remembered exactly where he was when he collected each plant. Complicating the effort, many of the Chinese place names that Wilson did record—tiny villages, many of them—have since been changed, and forgotten. The best hard evidence for placing Wilson therefore comes from the photographs he took.

Yin Kaipu, a professor emeritus at Chengdu's Institute of Biology who has explored Sichuan extensively—on horseback—has spent years identifying the sites Wilson photographed. He had presented a copy of his book, *Tracing One Hundred Years of Change*, to one of the party. In it, Yin pinpoints the location of 300 of Wilson's photographs, including one of a famous tree: a massive katsura



Wang Kang, Andrew Gapinksi, and Li Huaicheng with hard-won fruits of the dove tree. Seed pods of *Cardiocrinum*, or giant lily, a flowering bulb that grows six feet high. A poisonous caterpillar feeding nearby.

that Wilson photographed in the Dupingba valley on August 17, 1910 (and perhaps the tree that he described in *A Naturalist in Western China* as being 55 feet in girth).

The third day, though planned as a sort of pilgrimage to Dupingba, included some of the best collecting of the whole trip—and it was a different tree, not the katsura, that most captivated Dosmann and Gapinski.

From Si'er, the party drove northeast, up several switchbacks and then along a river where a huge washout had taken two-thirds of the width of the dirt road. The metal guardrail that had formerly marked the road's edge lay in the river below. As

everyone held their breath, the van fishtailed through the muddy strip of remaining roadway, and then continued on, reaching a locked barricade. There they were met by a new guide, He Sixian, who knew this valley well. The legendary katsura was a brisk, two-hour walk away.

Less than 10 minutes up the road, Dosmann spotted a seedling Cercidiphyllum. Then the group noted dove trees (Davidia involucrata) everywhere, heavy with seed, and marked several with blue flagging tape. Wilson considered this the most beautiful and interesting of all the temperate flora (the species produces white petal-like bracts that resemble handkerchiefs), and raised thousands of seedlings.

But the tree that riveted Dosmann was a beech. "This would be the all-star of the collection," he said. Unlike most beeches. this species (Fagus engleriana) has multiple stems. The Chinese describe its growth habit as "chicken feet," because the stems form a cup like the foot of a chicken turned upside down. Pandas frequented that tree, their guide said, eating bamboo while lounging amid the trunks. But this specimen had no seed.

"We have only collected this once," Dosmann said. "I have seen it once before growing with Acer griseum [the paperbark maple], but there was no seed. Wilson collected a seedling in Hubei [a province to the east] in 1907," he continued—perhaps the only time it has been introduced into cultivation. Pulling out a range map of the species, he noted that this site represented the northern edge of its native habitat. "Wilson collected two beech species: one, longipetiolata, never made it out of the gate; and this one, engleriana, named after a famous botanist. The species is distinguished by grayish, almost warty, stippled bark, and it also tends to have multiple stems. If we could get that..."

"We would sacrifice someone

for that beech," declared Gapinski. Beeches are one of the arboretum's core collections: other institutions in the United States rely on the Boston site to grow and maintain a comprehensive swathe of the genus, but the arboretum has just the one lineage. Writing about this tree, Wilson described it as having generally six to 12 trunks, slanting away from one another as they grow. He also noted that although he could find small plants, he could find no flowers, suggesting that the tree sets seed infrequently. But seedling collection is not an option for modern American plant hunters: since 1914, bringing soil into the United States has been forbidden.

After passing another of these apparently seedless special beech-

es, the group moved briskly, crossing a river (where it had erased the road) by balancing on the trunks of young trees laid across the water. After climbing a muddy hillside, they reached a field with several mature katsura trees before wading through a thicket and at last reaching the ancient specimen.

The tree had several trunks, all rotting from the inside; but even in decline, it was the largest katsura any of the group had ever seen. Dosmann, noting that the tree had been coppiced (cut back to stimulate growth, usually for firewood) in the 1910 Wilson photograph, guessed that it might be 500 years old. "But katsura are really good at basal sprouting" and could regenerate even after a

> rockslide. "This could have been a single trunk 1,000 years ago," he mused, "and have sprouted back."

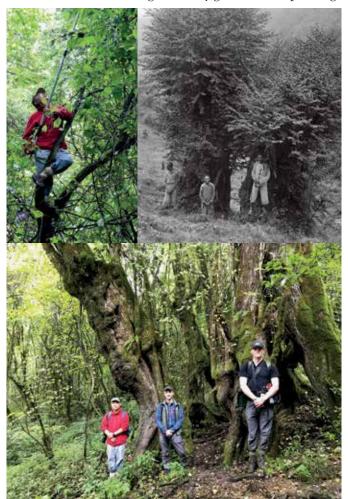
> After taking photographs to match Wilson's, and collecting seed (the pods resemble tiny string beans), the group ate lunch in a nearby field. Then they headed back.

> On the way down, they collected Enkianthus deflexus, a shrub with brilliant red fall color, and admired a spruce growing beside a river at the bottom of a ravine. Bathed in a constant mist. its limbs had been colonized by hartstongue fern, whose bright green leaves caught the afternoon light.

> They collected a beautiful birch, which Dosmann later identified as Betula insignis, rare in western gardens. Plants of this species now in cultivation, derived from a collection farther south in China, are marginally hardy in Boston. But this more northerly seed, collected at elevation, might grow well. "The short fat catkins are the female parts," Dosmann pointed out, while the pendulous ones, the longest and showiest of any birch, are male. He was pleased to collect a specimen with fine examples of both.

Finally, they reached the upper of the two Engler beeches. Although they had seen no seed previously, they scanned it with binoculars a final time. On a single limb, reaching for light, there were beechnuts.

The seed was too high to reach, so they decided to use a pocket chainsaw attached to a throw bag to cut the limb. From his backpack, Gapinski produced a flat nylon square that, like a pop-up tent, sprang open to form a cube about 2 feet on a side, with an open top. Inside was a carefully laid coil of thin, strong rope, and a weighted leather sack. If he could throw the sack and attached line over the limb, they could connect the jointed saw chain to one end and run



Wang Kang harvesting seed and specimens of a giant katsura. The 1910 photograph of the tree taken by Ernest Henry Wilson. Wang, Dosmann, and Gapinski recreate the historic photo.

it up for the cut. But the chain lodged tight in the notoriously hard wood, and the collectors had to climb the tree with a handsaw. The rope proved useful in controlling the limb's descent.

After gathering seed of a mountain ash (*Sorbus*), they tried to reach a dove tree, but the most magnificent specimens all grew beyond the grasp of the telescoping pruner. At last they spotted a specimen on a steep slope above the road. After heroic efforts by Gapinski, Wang, and Li, involving rope, limbs pulled low under tension, and the pruner, they managed to secure a sizable collec-

tion of large fruits.

### The Road to Songpan

That Night, a heavy rain fell. In the morning, the river ran half blue, half brown with mud. Driving past the entrance to the valley they'd visited on the second day, they could see that the water in that tributary had turned brown, a sign that there had been a landslide.

This would be their last day of collecting and they decided to explore the road above the reservoir, where they had turned around on the first day. Wang had learned that it led to a trail to Songpan, a small city about 18 miles to the northwest.

Much of the landscape, shrouded in mist as they climbed, was under cultivation. The road curved up and up, until the reservoir was no longer visible below. Then, after rounding a bend, the road dead-ended at a traditional farm house. As they approached it, a dog appeared, barking, and a Tibetan woman followed. She and her husband, both 76, lived there. Her cellphone, her only way of communicating with the outside world, was not working. "Could we fix it?" While Wang spliced wires, the others looked around. Everywhere, plants were hanging to dry,

and food simmered in pots in rooms throughout the house: pumpkins, rice, steamed bread, cabbage. Having repaired her cell-phone charger, Wang asked about the road to Songpan. "Ahhhh," she said, and gestured everyone to follow her—into the house, through a carved doorway, and down a dark hall to another door, which opened to the backyard. She pointed. This was the road to Songpan—it passed through her house.

The road beyond was in fact a narrow, overgrown path, and the group clipped their way slowly forward through heavy growth. But they did not make it far. After collecting five-flavor fruit (*Schisandra chinensis*), a vine with berries at once salty, sweet, sour, pungent, and bitter, and then *Deutzia longifolia* (a shrub with beautiful bicolor flowers, pink centered, rimmed with white), they had to stop. The scores

of leeches were overwhelming, and the party retreated to the house to remove them. Boots and socks came swiftly off. Dosmann pulled five leeches from his feet and ankles. Gapinski, too, had been bitten.

The old woman disappeared and returned with cold wood ash from an open hearth. The ash, she told Wang, would kill them.

Was there snow in the winter? he asked, trying to get a sense of the climate—important information for any plant scientist. Although their elevation was above 7,300 feet, they were at the same latitude as Savannah, Georgia. With a gesture, she indicated that the snow reached a

depth of one or two feet in winter. (Temperatures, the group learned later, drop as low as minus 5 degrees Centigrade.)

Then it was time to return to Si'er and clean seeds.

\* \* \*

SEVERAL WEEKS and 7,500 miles later, at the arboretum, Dosmann and Gapinski celebrated. Their seed collection had made it through customs. They had divided the shipment into three parts, spreading the risk in case any of it failed to clear U.S. Department of Agriculture inspection. Dosmann carried some in his luggage to Boston, declaring it at the airport. Some went by post to inspectors in Jamaica, New York, and a third set to New Jersey. When inspectors find something they don't like in a batch of seed, Dosmann explained, they might throw the  $\Xi$ whole lot in the incinerator. Or 🖁 they might fumigate the seed, 🗟 which can reduce its viability by half. When maggots are found after x-raying a single acorn, for example, one inspector may remove the infested corms, where another might reject the whole shipment. Worried about this possibility, Dosmann had, in fact, decided to abandon the group's oak collections. He was taking no chances

Dosmann holding a voucher specimen of Betula insignis. The fat upright catkins are this birch's female parts, while the dangling catkins, the longest of any birch species, are male. Opposite page, clockwise from upper left: Deutzia flowers; preparing specimens at the mountain home of a Tibetan couple; pressing a stack of specimens; seeds arrived safely at the Arnold Arboretum; nutlets of Chinese linden; teamwork to secure linden seeds; crossing a washout in the Dupingba valley.

that the rest of the botanical treasures they had gathered might be jeopardized.

By mid November, it was clear he'd made lots of good choices. Even as the first seedlings appeared in the Dana Greenhouses, the arboretum was fielding numerous requests for seed from other botanic gardens in North America, indicating strong interest, and ensuring wide dis-

Visit harvardmag. com to see additional photographs from the expedition.

tribution of the plants they'd brought home. In the end, that is the measure of a successful expedition.  $\nabla$ 

Managing editor Jonathan Shaw '89 accompanied the collecting expedition during six days in Sichuan.



# Henry Chapman Mercer

Brief life of an innovative ceramicist: 1856-1930

by nancy freudenthal

N A JUNE NIGHT in 1910, fire trucks raced through Doylestown, Pennsylvania, and found not a house in flames, but a bonfire atop Fonthill, the fantastical 44-room concrete home of Henry Chapman Mercer, A.B. 1879. That bonfire let Mercer celebrate his birthday, maintain the tradition of fires on St. John's Eve, and inaugurate his new home by demonstrating its fireproof qualities. (The journal Cement Age duly noted: "This is the sort of story that is causing the insurance man to sit up and take notice.")

Mercer was recognized by then as a leading ceramicist of the Arts and Crafts movement, a distinction he came to in a roundabout way. After college he studied, but never practiced, law. Instead, he traveled for almost a decade, pursuing art, history, and archaeology. By 1894, he had been appointed curator of American and prehistoric archaeology at the University of Pennsylvania Museum, but he held that post for just three years, parting ways with museum authorities as a result, in part, of his curmudgeonly personality. (A note in his copy of A Farewell to Arms hints at his style: "As convincing as a tapeworm. As charming as a bottle of dead flies.")

Even before leaving the museum, Mercer had developed a new approach he described as "archaeology turned upside down." Rather than beginning millennia before, he started with the recent past and worked back to its historical origins. This grew from his fascination with tools, made obsolete by industrialization, that he found discarded or offered in penny lots at country sales. They "give us a fresh grasp upon the vitality of the American beginning," he wrote. "At first, illustrating an humble story, they unfold by degrees a wider meaning, until at last the heart is touched." He created an elaborate 13-part taxonomy for tools (broadly defined) and assembled a vast collection at the heart of the Bucks County Historical Society's museum that now bears his name.

That museum reflected two sides of Mercer: learned in its content yet creative in its presentation. Its systematically organized collection served students of material culture—including Mercer himself, whose pioneering scholarship was so fundamental that his 1929 Ancient Carpenters' Tools, still in print, remains a basic text. Its displays, meanwhile, were extravagant and exuberant—an effort to capture the eye and the imagination. A central court rose five stories, surrounded in Escher-like profusion by small galleries, ramps, and stairs. On the ground floor were cigar-store Indians (Tools of Commerce); hanging balanced in the air above were a Conestoga wagon and several penny-farthing bicycles (Tools of Transport); at the very top was a gallows (a Tool of Government).

Beyond building his collection, he wanted to understand how those obsolete tools were used, and even to revive a dying or lost craft. Fearful that "so beautiful an art as that of the old Pennsylvania German potter...should perish before our eyes," he chose ce-

ramics, which he learned from one of the last redware potters in Bucks County. Working with clay sparked Mercer's creativity; he wrote of how his imagination was fired by "the manner in which mother earth grows out of the human touch into bowl or vase." Ceramics also drew on his artistic talents: he was an amateur painter and etcher, and at Harvard had studied art history with Charles Eliot Norton. By 1898, he had founded the Moravian Pottery and Tile Works. All its handmade tiles were his original designs or based on historical models he had adapted, and reflected the Arts and Crafts movement, then an important influence on American design.

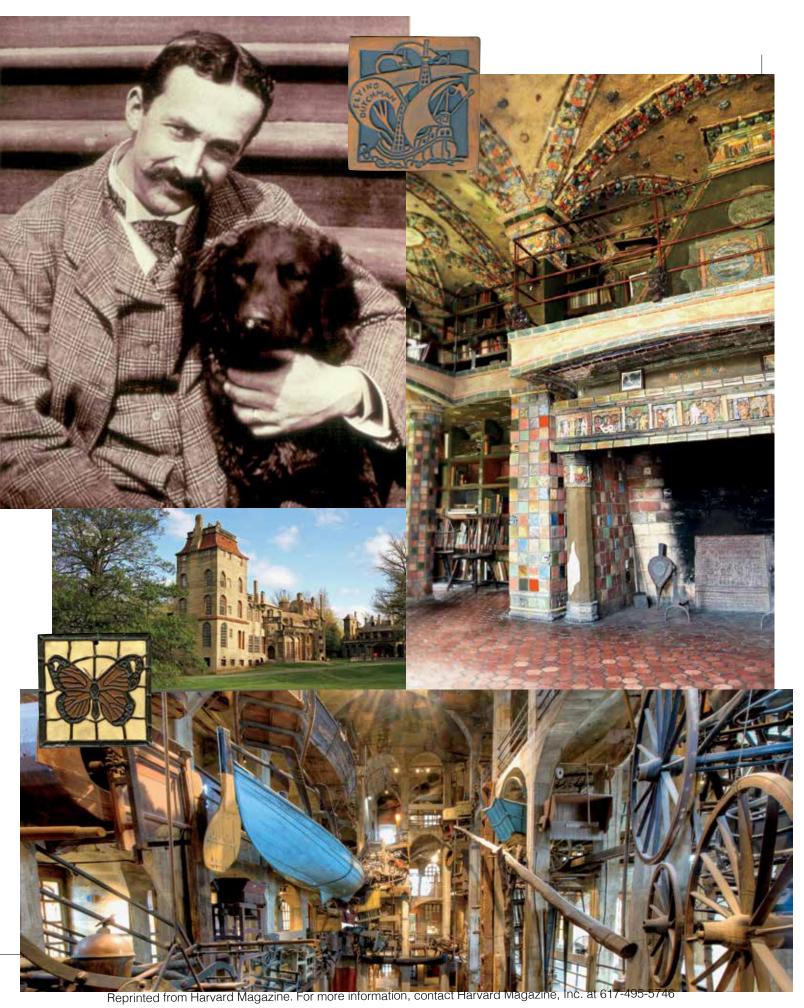
He soon earned major commissions, including the floors for Isabella Stewart Gardner's Fenway mansion and the rotunda of the Pennsylvania State Capitol, which he filled with almost 400 mosaics (one of his patented tile processes) displaying the state's history, industries, plants, and animals. Recognition was both artistic and commercial. His tiles won a grand prize at the 1904 World's Fair, and were sold in every state and overseas. The Pottery remained profitable even as the Arts and Crafts period waned, and still produces tiles while serving as a living-history museum.

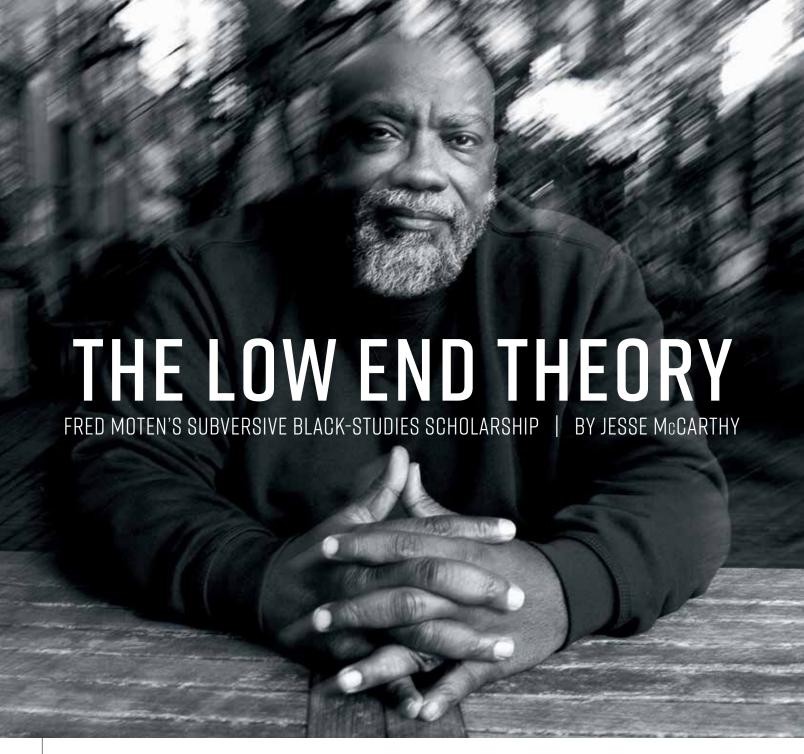
Simple geometric tiles may have been the Pottery's mainstay, but what was essential to Mercer was the artistic quality of his work. If plain tiles were all he produced, he told his workmen, he "might as well make soap." Instead, his tiles told stories from sources as varied as the Bible, folk tales, Dickens's Pickwick Papers, and Wagner operas.

Architects prized these decorative tiles, and Mercer, although untrained, was a sometime architect himself, designing both Fonthill and the Mercer Museum while creating the methods used to build them. Each was medieval in appearance but modern in construction: early examples of using reinforced concrete beyond industrial settings, built when Frank Lloyd Wright and Thomas Edison were also exploring its residential uses. He took pleasure in the rough imperfections of concrete and chastised architects who tried to disguise them, "ashamed of the mold, the welts and the boards which show that the walls were cast,...the richness of the texture that, like the rocks of the world, reveals creative work

At his death, the distinguished archaeologist David Randall-Mc-Iver could refer to Mercer as "an extraordinary figure...straight from the Renaissance." His classmate J.T. Coolidge wrote in an obituary that he was a "man of unusual character and imagination. Handsome, winning, interesting—and odd." The reality can probably be found in a combination of those two characterizations.

Nancy Freudenthal, Ph.D. '74, assistant provost emerita at The College of New Jersey, volunteers as a guide at Fonthill.





N 2013, a manifesto entitled *The Undercommons: Fugitive Planning & Black Study* began making the rounds among the growing pool of nervous graduate students, harried adjuncts, un-tenured professors, and postdocs whirling through the nation's faculty lounges. *The Undercommons* was published by the small anarchist press Autonomedia and made freely available for download; in practice, however, it circulated by word of mouth, copies of the PDF forwarded like samizdat literature for those in the know. On the surface, the text is an analysis of alienated academic labor at the contemporary American university. But it's also more radical than that: it is a manual for free thinking, a defiant call to dissent within educational institutions that betray their liberal credos,

filling their coffers even as they prepare students, armed with liberal arts degrees and "critical thinking" skills, to helm a social and economic order in which, "to work…is to be asked, more and more, to do without thinking, to feel without emotion, to move without friction, to adapt without question, to translate without pause, to desire without purpose, to connect without interruption."

For those with little or no knowledge of black studies, the text's deployment of terms like "fugitivity" and "undercommons" may seem baffling. To those in the circle, however, this lexicon of continental philosophy, remixed with a poetic and prophetic fire resembling Amiri Baraka's, bears the signature of one of the most brilliant practitioners of black studies working today: the scholar and poet Fred Moten'84.

Black studies, or African American studies, emerged out of the revolutionary fervor of the late 1960s, as students and faculty members demanded that universities recognize the need for departments engaged in scholarship on race, slavery, and the diasporic history and culture of peoples of African descent. Since its institutionalization, these departments have grown many branches of inquiry that maintain a rich interdisciplinary dialogue. One is a school of thought known as jazz studies, which investigates the intersections of music, literary and aesthetic theory, and politics. Moten is arguably its leading theoretician, translating jazz studies into a vocabulary of insurgent thought that seeks to preserve black studies as a space for radical politics and dissent. In his work he has consistently argued that any theory of politics, ethics, or aesthetics must begin by reckoning with the creative expressions of the oppressed. Having absorbed the wave of "high theory"—of deconstruction and post-structuralism—he, more than anyone else, has refashioned it as a tool for thinking "from below."

Moten is best known for his book *In the Break*: The Aesthetics of the Black Radical Tradition (2003). "The history of blackness is testament to the fact that objects can and do resist," is the book's arresting opening sentence, announcing his major aim: to rethink the way bodies are shaped by aesthetic experience. In particular, he explores how the improvisation that recurs in black art—whether in the music of Duke Ellington and Billie Holiday, the poetry of Amiri Baraka and Nathaniel Mackey, or the conceptual art of Adrian Piper—confounds the distinctions between objects and subjects, individual bodies and collectively experienced expressions of resistance, desire, or agony. Since 2000, Moten has also published eight chapbooks of poetry, and one, The Feel Trio, was a finalist for the National Book Award in 2014. He is that rare literary figure who commands wide and deep respect in and out of the academy, and who blurs the line between poetics as a scholarly pursuit, and poetry as an act of rebellious creation, an inherently subversive activity.

This past fall, Moten took up a new position in the department of performance studies at New York University's Tisch School of the Arts, arriving from Los Angeles and a teaching appointment at the University of California at Riverside. In early September, his office was still a bare room with a single high window looking out over Broadway. He hadn't had a chance to unpack his library, but already a small stack of books on jazz theory, performance, and quantum mechanics rested in a pile near his desk. It soon became clear, however, that he is the kind of thinker who keeps all his favorite books in his head, anyway. His Paul Laurence Dunbar is always at his fingertips, and he weaves passages from Karl Marx, Immanuel Kant, or Hortense Spillers into his conversation with equal facility.

In someone else this learnedness could come off as intimidating, but in Moten it's just the opposite. Something about his composure, his relaxed attentiveness, the way he shakes his head with knowing laughter as he pauses over the direction he's about to take with a question, instantly erases any stuffiness: one can imagine the exact same conversation taking place on the sidelines of a cookout. And then there's his voice: warm, low, and propelled by a mellow cadence that breaks complex clauses into neat segments, their hushed, conspiratorial air approaching aphorism. At one point, Moten asked about my dissertation, which I confessed, sheepishly, was kind of a mess. His eyes lit up. He leaned back with a wide grin, his hands spreading out in front of him. "You know what a mess is?" He said. "In Arkansas, a mess is a unit of measure. Like of vegetables. Where my people come

from folks might say: 'You want a bushel?' And you'll say, 'Nah, I want a mess.' You know, like that great James Brown line: 'Nobody can tell me how to use my mess.' It's a good thing to have. A mess is enough for a meal."

When he's speaking before an audience, no matter the size, he never raises his voice; a hush comes over the room and remains in ambient tension, like a low flame. On the occasion of John Ashbery's ninetieth birthday last July (just months before his passing), Moten collaborated in a celebratory recording of Ashbery's long poem, Flow Chart. Ashbery was always a great reader of his own work, but it was thrilling to hear the sly affection with which Moten took the verse uptown, bending its notes with his Lenox Lounge delivery. The same qualities come out when he reads from his own poetry, always brimful of quotations from the songbook of black America. His poem, "I got something that makes me want to shout," for example, consists of riffs that build off quotations from a celebrated funk record, each quote set off just enough and in just such a way —"I got something that tells me what it's all about"—that when he lands on the last line of the poem—"I got soul, and I'm super bad"—he's fully sublimated a James Brown groove. The line between poetry and song quivers, the "high" lyric gets down with the low, and the Godfather of Soul's declamation of Soul Power boomerangs back to us as poetry, which is what it always was.

### A COSMIC RENT PARTY

To understand how all the pieces that "make" Fred Moten come together, one has to step back and see where he's coming from. The autobiographical reference is a constant presence in his poetry, in which the names of beloved friends, colleagues, musicians, kinfolk, neighbors, literary figures, all intermingle and rub up against each other like revelers at a cosmic rent party. "I grew up in a bass community in las vegas," opens one poem from The Feel Trio: "everything was on the bottom and everything was / everything and everybody's. we played silos. our propulsion / was flowers."

Moten was born in Las Vegas in 1962. His parents were part of the Great Migration of blacks out of the Deep South who moved north and westward to big cities like St. Louis and Los Angeles. By the 1940s and 1950s they were also being drawn to Las Vegas, and the opportunities offered by the booming casinos and military bases established during World War II. "A lot of people don't realize it, but Vegas was one of the last great union towns," Moten says. Jobs within the gaming industry were protected by the Culinary Union, and with a union check, even casino porters and maids could save up to buy a house—"at least on the West Side," the city's largely segregated black community where he was raised.

Moten's father, originally from Louisiana, found work at the Las Vegas Convention Center and then eventually for Pan American, a large subcontractor for the Nevada Test Site where the military was still trying out its new atomic weapons. His mother worked as a school teacher. (She appears often in his poetry as B. Jenkins, also the title of one of his finest collections.) Her path to that job was a steep climb. Her family was from Kingsland, Arkansas, and had committed themselves against all odds to obtaining education. Her own mother had managed to finish high school, says Moten, who remembers his grandmother as a woman with thwarted ambitions and a great love of literature. She'd wake him up in the mornings by reciting poems by Dunbar and Keats she'd learned in high school. "And she was the one who was really determined for my mother to go to college," he says. "She cleaned people's houses until the day she retired, and in the summer and spring she would pick cotton." Kingsland is the birthplace of Johnny Cash, and Moten's family picked cotton on the property of Cash's cousin Dave, a big landowner, to get the money together to send his mother to college.

Jenkins attended the segregated University of Arkansas at Fayette-ville, which housed her in the dormitory basement. She was keen on doing more than just learning; she wanted to pursue knowledge for its own sake, and for how it might serve to explain the world around her. "My mother totally believed in the value of education," Moten says, "but she was scholarly in a certain way. She was invested in learning in a way that was disconnected from the material benefits it was supposed to get her, and I must have picked up on that." She was especially interested in sociology, and he grew up hearing her talk about figures like Horace Mann Bond, Hortense Powdermaker, Gunnar Myrdal, and John Dollard, towering figures of the liberal school of American social science who were engaged in solving what was then commonly referred to as "the Negro Problem."

Degree in hand, she went to Chicago to teach in the public schools, but "someone basically told her she was too dark to get a teaching job in Chicago." She hoped to have better luck in Vegas, but the schools were segregated there, too, and no one would hire her. "They used to call Nevada the Mississippi of the West," Moten recalls. Jenkins took up domestic work, and it was only by chance that she found herself cleaning the house of a woman who was on the local school board, who helped her get a job at Madison Elementary School on the West Side, where she met Moten's father.

The West Side was a tightly knit community. Moten likens it to the village in the Toni Morrison essay "City Limits, Village Values," where Morrison contrasts white fiction writers' "Gopher prairie despair" with the affection black writers typically express for the intimate, communal life built around "village values"— even if that black village, like Harlem, say, is part of a larger city. "It seemed like everybody was from one of these tiny little towns in Arkansas. My mom's best friends—their grandparents were friends." Nevada was a small enough state, he says, that the West Side could swing

# CAMPUS POLITICS CAME AS A SURPRISE: "WHEN I WENT TO HARVARD IN 1980 I THOUGHT I WAS BEING TRAINED FOR THE REVOLUTION."

tight elections, and much of Las Vegas politics in the early 1960s was concerned with national politicans' positions on civil-rights legislation. "So a few precincts in Las Vegas might make the difference between the election of a senator, Paul Laxalt, who probably wouldn't vote for the Civil Rights Act, or the election of a Howard Cannon, who would, and my mom was deeply involved in all that." Through her, politics and music became intertwined in everyday life.

Though the flashpoint of national politics at the time was school desegregation, locally it was also about desegregating the Vegas Strip. "You know, you see all that Rat Pack shit in the movies," Moten says, "but the truth of it was that Sammy Davis Jr., Duke Ellington, Count Basie—they could perform on the strip, but they damn sure couldn't stay there. So when they came to town they would come to the West Side and stay in rooming houses, and there was

this amazing nightlife on Jackson Street where you could hear everybody." Everyone, from headliners to pit-band musicians, came to stay on the West Side. Moten's mother was friends with musicians, dancers, and singers; when jazz singer Sarah Vaughan came to town she would come by the house, cook greens, listen to music, and gossip. "For me that was like school," he says. His childhood summers, meanwhile, seemed to revolve around listening to Vin Scully and Jerry Doggett doing the Dodgers broadcast: "My family were all rabid Jackie Robinson-era Dodgers fans."

Moten also has strong memories of listening to KBOP, "The Cool Voice of Vegas." "It was one of those sundown stations, you know, that shuts down for the night, and they had a disc jockey named Gino B. Soon as the sun started getting low, he would put on a bass line and start rapping to himself...bim bam, slapped-y sam, and remember everybody life is love and love is life...that kind of thing, and everybody in town would tune in just to hear what he was going to say, and I loved that." He also vividly recalls encountering certain LPs in the 1970s, like Bob Marley's Rastaman Vibration and Stevie Wonder's Innervisions—"those double-gated record albums that had the lyrics printed on the inside, so you could sit and read while the music played overhead." Aside from his grandmother's love of it, he says, his first experience of poetry was music.

### FROM HARVARD TO THE NEVADA TEST SITE

For a Kid from a midsize Western city, the shock of going East to college at Harvard might have been overwhelming. Moten felt he was ready for the challenge. He was lucky to have folks looking out for him, he insists—like David L. Evans, an admissions officer who was "like a hero to us": "Any black student from the late '60s onward, you can believe he had to fight like Mayweather, Ali, Frazier, and Joe Louis to get us in." Moten's first surprise at Harvard was encountering a certain kind of black elite. "My growing up was a lot more like Good Times than it was like the Huxtables, and now I was in a school with a lot of Huxtables." The even bigger shock was campus politics. "When I went to Harvard in 1980 I thought I was being trained for

the Revolution. The Black Panther party in Vegas—they met in my mom's basement. So I was ready to go, and I had foolishly assumed everyone there would be thinking like me."

Moten originally planned to concentrate in economics, taking Social Analysis 10 and a class on development economics that he vaguely imagined might lead to agricultural development

work in Africa. Freshman football helped him through his first semester by providing a loose structure without too strenuous a commitment—but by the second, things were getting messy. He was very influenced by Professor Martin L. Kilson, a scholar of black politics whom Moten describes as "a great man and a close mentor," and to whom *The Undercommons* is dedicated. He was also increasingly involved in the activities of politically minded friends—tutoring prisoners and working with civil-rights activists in Roxbury. After a while he got too busy to go to class. He was also awakening to a world of ideas and intellectual debate. "We were staying up all night, we were reading everything, just none of it was for class." The group discovered Noam Chomsky, and got deeply involved in exchanges between E.O. Wilson and Stephen Jay Gould about sociobiology and scientific racism—"and we felt like we were in the debate, like we were part of it, you know, we

were very earnest and strident in that way. But eventually it caught up to me that I had flunked three classes and I had to go home for a year."

This turned out to be a transformative experience that can only be described as Pynchonesque. When he got home, he ended up taking a job as a janitor at the Nevada Test Site, busing in through the desert each day. "The Test Site was the last resort for a lot of people. If you really messed up, you might still be able to get work there," he says now. He worked pretty much alone, but for an alcoholic man from Brooklyn who'd somehow drifted west, and would regale Moten with stories about growing up in Red Hook. "I'll never forget, he always called me 'Cap': 'I wanna succeed again, Cap!"

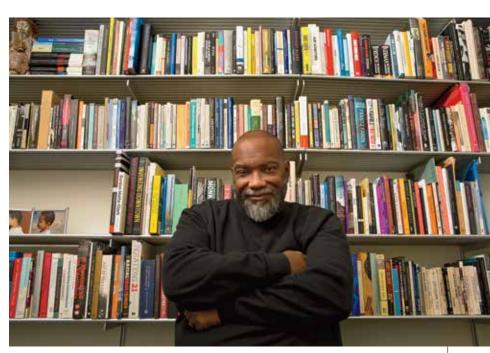
"It was eight hours of job but two hours of work," Moten recounts, "so mostly what I did was read." He got into T.S. Eliot by way of seeing *Apocalypse Now* and reading Conrad. "The Hollow Men' and 'The Wasteland,' those were very important poems for me. There was this scholarly apparatus to them, a critical and philosophical sensibility

that Eliot had, that you could trace in the composition through the notes." He'd pore over a newly released facsimile edition to "The Wasteland" that included Eliot's drafts. "By the time I came back, I was an English major."

Back in Cambridge, it was an exciting and tumultuous time to be jumping into literary studies. He took an expository writing class with Deborah Carlin, who introduced him to Alice Walker and Zora Neale Hurston and encouraged him to write; he took Helen Vendler's "Modern American Poetry" class, where he first encountered Wallace Stevens, Frank O'Hara, and Allen Ginsberg, "And I realized that I could read it, I could get it." Reflecting, he adds, "I was glad that I had taken the class with Vendler and the class meant a lot to me, but I also already knew my taste differed from hers."

At the same time, Moten was cultivating a relationship to campus literary life, joining *The Harvard Advocate*, where he met its poetry editor, Stefano Harney '85—forming a close and enduring friendship that has also evolved into an ongoing intellectual collaboration (Harney is co-author of *The Undercommons*). Together, they took a class taught by David Perkins on the modernist long poem, reading William Carlos Williams's *Paterson*, Robert Duncan's "Passages," and Ed Dorn's *The Gunslinger*. "I was into that stuff, and Steve was, too, so we could cultivate our resistance to Vendler together." Parties were off campus at William Corbett's house in Boston's South End, where fellow poets like Michael Palmer, Robert Creeley, or Seamus Heaney might stop in for dinner or drinks. Moten absorbed the possibilities of the scene but his poetic sensibility is that of the instinctive outsider, attracted to all those who dwell at the fringes and intend to remain there.

A decisive turning point came when literary critic Barbara Johnson, arrived from Yale to teach a course called "Deconstruction," and he first read Jacques Derrida, Paul de Man, and Ferdinand Saussure. At the time, in a class on James Joyce, he was also reading *Ulysses*. "It had a rhythm I was totally familiar with, but that I didn't associate with high art. I believed, I just sensed that it was radical; it felt instinctively to me like this was against the status quo, that the reason they wrote this way was that it was like a secret, it



wasn't for the bosses." He felt the same way about Derrida: "This is for the people who want to tear shit up. And we were ready for it."

### THE POET-PHILOSOPHER OF WEIRD

Moten went on to pursue graduate studies in English at Berkeley. Even his earliest journal publications are intensely idiosyncratic. It's as if he were convinced he had to invent his own tools in order to take up the subjects that interested him—design his own philosophy, his own theory. "I'm not a philosopher," he says. "I feel like I'm a critic, in the sense that Marx intends in *Private Property and Communism* when he gives these sketchy outlines of what communism might look like: "We wake up in the morning, and we go out in the garden, till the ground, and in the afternoon we engage in criticism."

In his criticism, Moten is especially attuned to a zone that Brent Edwards (a close friend and interlocuter) has called the "fringe of contact between music and language." He'll draw the reader's attention to the "surplus lyricism of the muted, mutating horns of Tricky Sam Nanton or Cootie Williams" in Duke Ellington's band, for example. Or, commenting on <code>InvisibleMan</code>'s observation that few really listen to Louis Armstrong's jazz, he'll cut to an abrupt and unsettling assertion: "Ellison knows that you can't really listen to this music. He knows… that really listening, when it goes bone-deep into the sudden ark of bones, is something other than itself. It doesn't alternate with but is seeing; it's the sense that it excludes; it's the ensemble of the senses. Few really read this novel."

In one of *Inthe Break's* most transfixing passages, Moten reassembles a new set of meanings, or understandings, of the photograph of Emmett Till's open casket. Why should that image, out of all others, have so much power—some even arguing, as he points out, that it triggered the mobilization of the civil-rights movement? Why has it remained so charged and fraught, so haunting? "What effect," Moten asks, "did the photograph of his body have on death?" His answer: captured within the image is the sexual panic occasioned by the sound of Till's whistling, "the crippled speech' of Till's 'Bye, baby," forever bound up in the moaning and mourning of a mother over her dead child. Looking at the photograph, Moten writes, "cannot" (please turn to page 74)

#### THE LOW END THEORY

(continued from page 45)

be sustained as unalloyed looking but must be accompanied by listening and this, even though what is listened to—echo of a whistle or a phrase, moaning, mourning, desperate testimony and flight—is also unbearable." Millions have viewed the photographs of Till's open casket. His images have been infamously and controversially reproduced, looked away from, gawked at. Moten does with extraordinary care what most have never done for Till (or for so many other sons and mothers), out of ignorance, or fear, or shame—which is, of course, to listen.

Moten is impatient with detractors who accuse him of difficulty and lack of clarity. Many writers once thought to be impenetrable are now considered canonical, he points out. "The critics I loved and who were influential to me were all weird: Empson, Burke, Benjamin, Adorno—they all had a sound, and it wasn't like a PMLA, academic-journal sound." The other critics who influenced him, he continues, were poets: Charles Olson, Amiri Baraka, Nathaniel Mackey, and especially

Susan Howe—who, he says, has a different understanding of how the sentence works. "Miles [Davis] said: You gotta have a sound. I knew I wanted to sound like something. That was more important to me than anything." One could argue that Moten's sound resonates with the "golden era" of hip-hop of the late eighties and early nineties, when it was still audibly a wild collage of jazz, R&B, late disco and funk: "Styles upon styles upon styles is what I have," the late Phife Dawg raps on A Tribe Called Quest's celebrated 1991 album *The Low End Theory*.

One difficulty for outside readers encountering Moten's work is that he tends to engage more with the avant-garde than with pop. It's easy to see why the art world has embraced him: his taste gravitates toward the free-jazz end of the spectrum so strongly it's as if he were on a mission, striving to experience all of creation at once—to play (as the title of a favorite Cecil Taylor album puts it) All the Notes. This spring, Moten is teaching a graduate course based on the works of choreographer Ralph Lemon and artist Glenn Ligon. In recent years he has collaborated with the artist Wu Tsang on instal-

lation and video art pieces, where they do things like practice the (slightly nostalgic) art of leaving voicemail messages for each other every day for two weeks without ever connecting, just riffing off snippets from each other's notes. In another video short directed by Tsang, Moten—wearing a caftan and looking Sun Ra-ish—is filmed in "drag-frame" slow motion dancing to an a cappella rendition of the jazz standard "Girl Talk."

By way of explanation, Moten recalls his old neighborhood. "I grew up around people who were weird. No one's blackness was compromised by their weirdness, and by the same token," he adds, "nobody's weirdness was compromised by their blackness." The current buzz (and sometimes backlash) over the cultural ascendancy of so-called black nerds, or "blerds," allegedly incarnated by celebrities like Donald Glover, Neil deGrasse Tyson, or Issa Rae, leaves him somewhat annoyed. "In my mind I have this image of Sonny Boy Williamson wearing one of those harlequin suits he liked to wear. These dudes were strange, and I always felt that's just essential to black culture. George Clinton is weird. Anybody that we care about, that

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we still pay attention to, they were weird."

Weirdness for Moten can refer to cultural practices, but it also describes the willful idiosyncracy of his own work, which draws freely from tributaries of all kinds. In Black and Blur, the first book of his new three-volume collection, consent not to be a single being (published by Duke University Press), one finds essays on the Congolese painter Tshibumba Kanda-Matulu and C.L.R. James, François Girard's Thirty Two Short Films About Glenn Gould, a comparison between Trinidadian calypso and Charles Mingus records composed in response to the Little Rock Nine, David Hammon's art installation Concerto in Black and Blue, Wittgenstein and the science fiction of Samuel Delany, a deconstruction of Theodor Adorno's writings on music and a reconstruction of Saidiya Hartman's arguments on violence. Sometimes the collision can happen within a single sentence: "Emily Dickinson and Harriet Jacobs, in their upper rooms, are beautiful," he writes. "They renovate sequestration."

Taken together, Moten's writings feel like a Charlie Parker solo, or a Basquiat painting, in their gleeful yet deadly serious attempt to capture the profusion of ideas in flight. For him this fugitive quality is the point. We are

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# HIS WRITINGS FEEL LIKE A CHARLIE PARKER SOLO, OR A BASQUIAT PAINTING, IN THEIR ATTEMPT TO CAPTURE THE PROFUSION OF IDEAS IN FLIGHT.

not supposed to be satisfied with clear understanding, but instead motivated to continue improvising and imagining a utopian destination where a black cosmopolitanism—one created from below, rather than imposed from above—brings folks together.

For Moten, this flight of ideas begins in the flight of bodies: in the experience of slavery and the Middle Passage, which plays a crucial role in his thinking. "Who is more cosmopolitan than Equiano?" he asks rhetorically, citing the Igbo sailor and merchant who purchased his own freedom, joined the abolitionist movement in England, and published his famous autobiography in 1789. "People think cosmopolitanism is about having a businessclass seat. The hold of the ship, among other things, produces a kind of cosmopolitanism, and it's not just about contact with Europeans and transatlantic travel. When you put Fulani and Igbo together and they have to learn how to speak to each other, that's also a language lab. The historical production of blackness is cosmopolitanism."

What can one learn from the expression of people who refuse to be commodities, but also once were commodities? What does history look like, or the present, or the future, from the point of view of those who refuse the norms produced by systems of violence: who consent not to be a single being? These key concerns course through the entirety of Moten's dazzling new trilogy, which assembles all his theoretical writings since In the Break. At a time of surging reactionary politics, ill feeling, and bad community, few thinkers seem so unburdened and unbeholden, so confident in their reading of the historical moment. Indeed, when faced with the inevitable question of the state of U.S. politics, Moten remains unfazed. "The thing I can't stand is the Trump exceptionalism. Remember when Goldwater was embarrassing. And Reagan. And Bush. Trump is nothing new. This is what empire on the decline looks like. When each emperor is worse than the last."

A THESIS that has often been attractive to black intellectuals (held dear, for example, by both W.E.B. Du Bois and Ralph Ellison)

was that the United States without black people is too terrifying to contemplate; that all the evidence, on balance, suggests that blackness has actually been the single most humanizing—one could even say, slyly, the only "civilizing"—force in America. Moten takes strong exception. "The work of black culture was never to civilize America—it's about the ongoing production of the alternative. At this point it's about the preservation of the earth. To the extent that black culture has a historic mission, and I believe that it does—its mission is to uncivilize, to de-civilize, this country. Yes, this brutal structure was built on our backs; but if that was the case, it was so that when we stood up it would crumble."

Despite these freighted words, Moten isn't the brooding type. He's pleased to be back in New York City, where he'll be able to walk, instead of drive, his kids to school. He's hopeful about new opportunities for travel, and excited to engage with local artists and poets. His wife, cultural studies scholar Laura Harris, is working on a study of the Brazilian artist Hélio Oiticica, who is currently being "re-discovered" by American artists and critics. "I circulate babylon and translate for the new times," opens another poem in The Feel Trio, referring to a timely, or maybe timeless, place where "secret runway ads brush and cruise each other and / the project runaway."

Moten is not in the business of promoting optimism for the future, but he does not feel imprisoned by the past or bogged down in the present. Instead he is busy prodding about the little edges of everyday life as it is expressed by everyday people, the folkways of the undercommons. As his writings circulate within and beyond the classroom, so too does his version of theorizing from below, always seeking out sites where a greater humanity might unexpectedly break through.

Jesse McCarthy previously profiled novelist Colson Whitehead '91 in the September-October 2016 issue of this magazine. His writing has appeared in The New York Times Book Review, The Nation, The Point, and Dissent.

# Prodigies' Progress

Parents and superkids, then and now by Ann Hulbert

Editor's note: In her new book, Ann Hulbert '77 explores the fascination with child genius over the past century in America. She probes the stories of 16 exceptionally gifted young people, including two precocious students who arrived at Harvard in 1909.

URS IS AN ERA, a popular parenting adviser has written, when Lake-Wobegon-style insistence on above-average children is "yesterday's news," overtaken by an anxious credo that "given half a chance, all of our children would be extraordinary." Yet versions of today's uneasy preoccupation with off-the-charts early achievement actually go back further than we think. Over the past century, the zeitgeist has swept different young marvels to special attention as emblems of social progress or as victims of worrisome pressures or often both at once. Is this or that early bloomer a weirdo headed for burnout, true to popular lore? Or is the wunderkind bound for creative glory, as

modern experts have hoped to prove? And what behind-the-scenes forces other than his or her genius explain precocious mastery? Such loaded questions lurk between the lines for lesser superkids, too. Prodigies exert the fascination they do precisely for that reason: they invite scrutiny as auguries for the rest of us. They are the living, breathing, superbly high-performing evidence of what feats children may be capable of—and of how adult aspirations and efforts may help or hinder youthful soaring. What prodigies themselves make of their speedy progress, and the stresses they face, is a question that has only gradually gotten the airing it deserves.

In the fall of 1909, when two wonder boys converged on Harvard—among the first, and for a time the most famous, prodigies of the modern era—their parents proudly assumed a Pygmalion role. Norbert Wiener, the nearly 15-year-old son of the university's first professor of Slavic languages, Leo Wiener, arrived as a graduate student in (at his father's direction) zoology. William James Sidis (namesake and godson of the renowned Harvard psychologist who had been a mentor to his father, Boris Sidis) was admitted



at 11 as a "special student" after strenuous lobbying by his father.

The two superprecocious sons of two very upwardly mobile Russian immigrants, outspoken men with accents and bushy mustaches, inspired suspense. The arrival of these brilliant boys with unusual pedigrees fit the mission of Harvard's outgoing president, Charles William Eliot, a liberal Boston Brahmin and staunch believer in equality of opportunity. He aimed to open the university's doors to "men with much money, little money, or no money, provided that they all have brains." And not just brains, Eliot warned complacent WASPs, who mistook "an indifferent good-for-nothing, luxurious person, idling through the precious years of college life" for an ideal gentleman or scholar. Eliot had in mind an elite with "the capacity to prove by hard work that they have also the necessary perseverance and endurance."

Boris Sidis and his wife, Sarah, had made it their mission to jolt turn-of-the-century Americans with a thrilling, and intimidating, message: learning, if it was begun soon enough, could yield phenomenal results very early and rapidly. Russian Jews, they had fled the pogroms in Ukraine for the garment sweatshops on the



When Norbert "Nubbins" Wiener (left) and William "Billy" Sidis matriculated at Harvard in 1909, they were 14 and 11, respectively. Press accounts often blurred their backgrounds, but their upbringings—and temperaments—differed sharply.

United States' East Coast in the mid-1880s. Within 10 years they had worked their way to the top of American higher education. By 1898, Sarah was a rare woman with an M.D. (from Boston University School of Medicine), and Boris had racked up a B.A., an M.A., and a Ph.D. in psychology at Harvard within four years. But inborn talent had nothing to do with their feats, or their son's, they insisted. An as-yet-unimagined potential lay in every child, and it was time parents started cultivating it, Boris urged in an address called "Philistine and Genius," delivered at Harvard's summer school in 1909. The country, more than ever, needed "the individuality, the originality, the latent powers of talent and genius" too often wasted.

Leo Wiener, whose American odyssey had blended odd jobs and nature-loving idealism with fervent auto-didacticism, agreed. He had mastered 10 languages by his teens back in the old world, and en route to Cambridge discovered his calling as a teacher who

scorned rote learning and inspired by impassioned example.

The prospect that anyone's children could soar like these sons—and do so without undue strain, if parents were prompt enough and pursued the right methods—stirred great interest, but also wariness, on campus and beyond. A. Lawrence Lowell, Eliot's far stuffier Brahmin successor, was said to worry that the "new immigrants" from Eastern and Southern Europe just didn't mix well with the "Anglo-Saxon race," whose ascendancy he assumed. "What will become of the wonder child?" asked a New York Times article announcing William's debut at Harvard. The attention was tinted with suspicion: "Will he go the way commonly supposed to be that of most boy prodigies," the Times went on, "or will he make a name for himself?"

When they arrived on campus in Cambridge, Norbert and William bore no physical resemblance. In a photograph that circulated in the avid newspaper coverage that fall, Norbert conveyed confidence, a bow tie setting off a sober yet open expression. William, in bangs and short pants, was still very much a child. Their backgrounds blurred, though, in the welcoming press accounts that greeted the unusual new students. That fit right in with their fathers' overarching purpose. Which boy had accomplished what by when wasn't the point: they were an amalgam of the wonder child hidden in every child.

Leo and Boris presented their sons and themselves as readily imitable examples, cut from a common cloth. Their boys had started out no different from other "bright" children. The fathers' new methods were neither customized nor complicated—nor coercive. They opened "up to the human race vistas of possibilities and achievement unreached in any epoch of the history of the world." So announced the Boston journalist and popularizer of psychology H. Addington Bruce, who claimed prime magazine space at a time when compulsory schooling laws were spreading, along with "child

study" groups and new interest in early development. The young marvels in Cambridge were not to be compared with lopsided "lightning calculators" like Zerah Colburn, a Vermont farm boy born in 1804 whose father had toured him through Europe. Instead, Norbert and William thrived on cutting-edge pedagogical insights that promised to banish old-fashioned fears of debilitating precocity produced by "forcing." Children's "minds are built with use," Boris taught, their brains undergoing rapid growth beginning in infancy. Seizing the window between two and three was crucial, and teaching must also appeal to their feelings.

Yet of course neither the men nor the boys—nor their families were cut from the same cloth at all. Nor did their Harvard trajectories unfold the same way. By the time they arrived on campus, William's and Norbert's experiences had already been strikingly different. Life in the Wiener household was a whirlwind, despite the best efforts of Leo's wife, the very proper former Bertha Kahn of Missouri. An insatiable learner who pored over books early, Nubbins—Norbert's family nickname—had the freedom, and the inclination, to be as vigorous as he was intellectually curious. He had a model: Leo, a tireless scholar and farmer and mushroom hunter. As a small boy in Cambridge, Norbert eagerly sought out friends. Chunky and full of physical energy, he threw himself into neighborhood games, despite his bad eyesight and coordination—and more fearfulness than he cared to admit. Indoors, the Wieners' "house of learning" overflowed with visitors, conversation, books, and emotional outbursts. When eight-year-old Norbert ran into math difficulties with a mean teacher in the fourth grade, Leo pulled him out of school. Norbert got home-based learning, much of it outsourced in wonderful ways-

a lovely Radcliffe tutor for Latin and German, a chemistry student who helped set up a lab, and endless time in the Agassiz Museum at Harvard, not to mention roaming with friends.

Math studies, though, were another story. In public, Leo prided himself on setting store by "the blessedness of blundering." Making children "work out problems" gave them the chance to fumble, he told journalists, and to "acquire that sense of mastery, that joy of triumph, which is of itself an incentive to further effort." But in his memoir written in middle age, Ex-Prodigy, Norbert's description of algebra lessons with his father reveals Leo's habit of thundering at his son's mistakes, letting loose with brute, ass, fool, donkey. When at eight, eye trouble for Norbert necessitated a half-year ban on reading or writing—doctor's orders—Leo's orders were to learn by ear. Those months spent working out algebra and geometry problems in his head introduced Norbert to a powerful ally: a highly unrote memory. In the bargain, he staked out a private inner sanctum and discovered his own unusual skill. "I relearned the world," Norbert later told a colleague. "My mind completely opened up. I could see things I never saw before."

After two years came another "unorthodox experiment," as Norbert put it in *Ex-Prodigy*: he went to high school. There, he lucked into an ideal mentor—or more accurately, maternal protector: Miss Laura Leavitt, a classics teacher whom Wiener later described as the "brains and conscience" of the school. She eased Norbert into kid-brother status among the students, and made sure he connected with middle-schoolers who shared the building; her nephew became his best friend. Three years later, in the fall of 1906, Norbert graduated, fortified by "a sense of roots and security." At almost 12, he became a matriculant at Tufts College, in Medford, on the theory that he would be spared the full glare of the spotlight likely to be his fate on the Harvard campus.

William's home world was a calm idyll—certainly by comparison with the volatile Wiener scene. But his mother's portrait of family harmony, in an account she wrote years later, obscured a more unsettling reality: a little boy off in his own orbit, and two parents too emotionally obtuse to recognize how isolated he was. Billy (as he was then called) was deemed ready for grownup pastimes by five months old, observing and listening to everything at the dinner table, learning to use a spoon by trial and error. Ever at hand, Sarah was ready to answer or help him research any question, not

When William graduated at 16, The Boston Herald headline brimmed with mockery:

"Harvard's Boy Prodigy...Has 154 Rules Which Govern His Life."

that her son gave much sign of wanting a collaborator. At around three, he found her old Latin trot, and excitedly revealed his mastery to his stunned father and some visitors. Boris supplied Billy with calendars to familiarize him with days and numbers. By five, the hyperfocused little boy had figured out by himself how to calculate the day on which any date fell. Rules thrilled him; deviations from routines upset him. At six, he headed off to a Brookline primary school. There he was an impatient handful for teachers, according to a later press account, covering his ears when he was bored, irrepressible when he was interested. At recess Billy was a loner, avoiding all games and "expounding the nebular hypothesis" to less-than-attentive schoolmates.

Might everything have turned out differently had the Sidises taken their cue from the

Wieners' decision to shield Norbert from the Harvard limelight? Instead, they pressed for Billy's admission, and Harvard, overcoming its qualms about his lack of maturity, admitted him as a commuting student at 11. William, the name he now went by, gave no sign of being fazed that he didn't fit into a world of polished young gentlemen. But mixed in with his social cluelessness was what could be taken for arrogance—and was, in his parents' case. An impatient proselytizer, Boris not so subtly implied that those who didn't match the Sidises' pedagogical success (and who could?) were hidebound slackers. Under the circumstances, the plan to have William deliver a lecture on the fourth dimension to the Mathematical Club in January 1910—an event evidently facilitated by a family friend of the Sidises—courted trouble.

The substance of the talk was impressively incomprehensible: that was the gist of accounts by reporters ready to assume that what was over their heads was beyond the rest of the audience, too. (Norbert, who was there, noted that the presentation didn't rely on others' work, which he found quite remarkable.) It was William's style that entertained the press. He had his professorial act down—introductory patter, gestures, arcane vocabulary, diagrams, even a closing glance at his watch. And then on January 27, 1910, a front-page article in *The New York Times* reported that young William had been "weakened recently by overstudy" and had been felled by a cold after his lecture. He apparently was under the weather, but a bigger press backlash was under way, reviving old-style alarm about prodigies as exploited specimens, enfeebled by ill-advised precocity. Another story inside the paper diagnosed a "breakdown" and blamed Boris.

With Boris opening a sanatorium for "nervous patients" in Portsmouth, the family moved to New Hampshire, leaving William on his own as he entered adolescence. Under suspicion now of being mentally unbalanced, he endured continued press hounding. The idea was for him to try Harvard dorm life. But he was the dupe of pranks that mostly turned on his awkward ignorance about girls; bullying soon drove him to a rooming house on Brattle Street. When William graduated cum laude at 16 in June 1914, *The Boston Herald* was ready with salutes to his record-breaking prowess. He was "mentally... regarded by wise men as the most remarkable youth in the world" and was on his way to becoming "the youngest college professor in the world," with an appointment to teach math at Rice Institute.

But the headline brimmed with mockery: "HARVARD'S BOY PRODIGY VOWS NEVER TO MARRY Sidis Pledges Celibacy Beneath Sturdy Oak, Has 154 Rules Which Govern His Life, 'Women Do Not Appeal to Me,' He Says; He Is 16." It wasn't just romance and sex but anger that he needed to keep at bay, William told the *Herald* reporter. "I have a quick temper; ergo, I will not mingle a great deal with the fellows around me, then I shall not have occasion to lose my temper."

But the anger he barely suppressed seemed to be aimed above all at his parents. William declared himself "not at all a believer in home life." In one puzzling and poignant swipe, he all but

abolished childhood: "No one should be dependent upon the good-will of others for support when too young to support himself." He announced that he was "in a way...a Socialist," perhaps not such a surprising allegiance for a prodigy who was feeling sabotaged by filial dependence, Harvard snobbery, and media prurience—and loneliness.

Norbert didn't manage to forge any real connection with William on campus. He briefly tried, though, and the oddball loner seems to have inspired a fraught sense of fellowship in the young graduate student who came to Harvard newly, and intensely, haunted by predictions of failure for a "freak of nature," or nurture, of the sort the two of them were. Norbert had spent the summer of 1909 in acute crisis after three years at Tufts. He had thrived there on the academic challenges, but four decades later in his memoir he described a teenager thrown off balance. Heading home each day to siblings and neighborhood friends, he was "wholly a child for purposes of companionship." Meanwhile, hormones left him feeling guilty and confused. And his father's refrain, in company and in the press, that Norbert was not just average but lazy didn't help. Depression closed in on Norbert when ĥe didn't make Phi Beta Kappa and learned that the reason was "doubt as to whether the future of an infant prodigy would justify the honor."

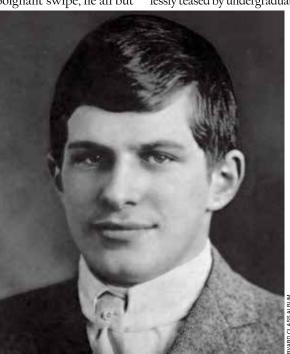
By the time he started at Harvard, Norbert was armed with a social awareness that William utterly lacked. He was also intensely self-conscious about his misfit status in a setting where, as he put it, "a gentlemanly indifference, a studious coldness, an intellectual imperturbability joined with the graces of society [to make] the ideal Harvard man." Norbert went ahead and threw himself, as he always

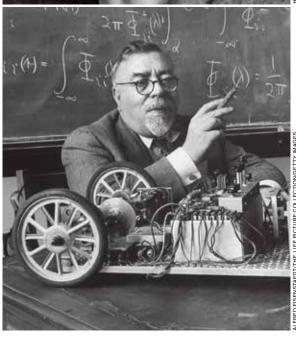
had, into more than his studies (which soon shifted to philosophy). He dared to join in pick-up basketball games in the gym basement but quickly realized his glasses couldn't take the rough play even if he could. A commuter, he mingled happily in the library of the Harvard Union between classes, where the unclubbable sort hung out—generating murmurs of disapproval as anti-Semitism became more overt under President Lowell.

As A 17-year-old math teacher at Rice, William was yet again mercilessly teased by undergraduates older than he was. Enrolled after that

at Harvard Law School, he dropped out in his third year, not the collector of credentials his father had been. If his growing interest in radical politics encouraged any new bonding with Boris (an erstwhile tutor of Russian serfs), a bitter break with his parents was in store after William got arrested at a Boston May Day Socialist march in 1919 that dissolved into mayhem.

By now 21, he was sentenced to 18 months in prison on charges of rioting and assaulting a police officer, though he had done neither. In William's later version of events, he was "kidnapped" by his parents before he could appeal the initial sentence. Their idea of "protection," he wrote, was to make him stay in the New Hampshire sanatorium for a year, after which they whisked him to California—eager to keep him not just out of court and prison but also out of touch with fellow Socialists in Boston. Upon finally escaping to New York and lowlevel accounting work, William was spooked, in flight from his parents' control, as well as from press attention, his reputation (he promptly quit if officemates learned who he was), and the legal charges. Writing under pseudonyms, he pursued a wide array of topics: the collection of streetcar transfers, the contributions various Indian tribes had made to American colonists' notions of democracy, collisions on highways, trivia about his beloved city of Boston, and more. He put his name on his most ambitious endeavor, The Animate and the Inanimate, which was published (perhaps at his own expense) in 1925 to no notice. It set forth his ideas about the possible reversibility of the second law of thermodynamics, and was later judged by some—most notably, Buckminster Fuller—to have anticipated versions of the big bang theory and black holes.





William James Sidis (top, in the only image of him as an adult, taken for a Harvard class album) died in 1944 at the age of 46. Norbert Wiener (in a classroom at MIT, circa 1949) became a pioneer in the field of cybernetics.

In 1937, William was dragged back into the limelight in a patronizing *New Yorker* profile that mercilessly mocked his still very busy mind. He broke his vow of seclusion to sue for invasion of privacy and malicious libel. The judge dismissed the case, which has become a classic in privacy law, and William, who worked on the briefs, lost the appeal. Once a public figure, always a public figure, the judge ruled, even as he lamented the ruthless intrusion. William persisted with his various causes, especially active in defense of pacifism and of limited government, alienating allies again and again with his bullheadedness. In 1944, at 46, he died of a cerebral hemorrhage.

Norbert, who vented his outrage at the New Yorker article in his memoir, offered a stark but empathetic assessment of William (by then dead): a "defeated—and honorably defeated—combatant in the battle for existence." Norbert himself had surged onward academically, though not exactly smoothly. He finished his Ph.D. at Harvard in June 1913, writing a dissertation on Alfred North Whitehead and Bertrand Russell's Principia Mathematica, and then won a prestigious Harvard postgraduate traveling fellowship and headed off to study at Trinity College, Cambridge, with Russell. There was no chemistry between them. Russell complained that Norbert's views were a "horrible fog." Russell, Norbert complained in turn, was "an iceberg. His mind impresses me as a keen, cold, narrow logical machine, that cuts the universe into neat little packets, that measure, as it were, just three inches each way." His own mind, Norbert was discovering, was more versatile in math than he had known.

He returned to the United States in 1915 to figure out what he might do next, at 21 jumping among jobs (some lined up by Leo). His stint in 1918 at the U.S. Army's Aberdeen Proving Ground was especially rewarding. Mood swings continued. Yet busy doing invaluable work on antiaircraft targeting with fellow mathematicians, he found the camaraderie and the independence he yearned for. Soon, in a now-flourishing postwar academic market for the brainiacs needed in a science-guided era, Norbert found his niche. At MIT, social graces and pedigrees didn't count for much, and wartime technical experience like his did. He got hired. The latest mathematical tools were much in demand as electronic communication technology took off in the 1920s.

By then he was seeing the woman he finally married in 1926 and with whom he had two daughters. Norbert was also deep into the prescient endeavor of fathoming the endlessly elusive process at the heart of the computer age: the flow of information. Cybernetics, "or control and communication in the animal and the machine," as Norbert summed up his new pursuit, was a notably hybrid undertaking—at once theoretical and practical, concerned with both mind and matter. That a pioneering modern prodigy had sired it seems particularly fitting. Norbert's work helped usher in the computer, which one of his many successors, Seymour Papert, heralded as "the children's machine" and the key to a newly youth-driven "age of learning."

When Norbert Wiener and William Sidis arrived on campus, the world was in ferment, and Harvard along with it. A new century of global migration and international tensions was under way. The pace of scientific progress had picked up. The fledgling field of psychology was thriving (Freud visited the United States in 1909) and Einstein's revolutionary papers of 1905 had stirred baffled interest. The university was reassessing its privileged student body, and President Eliot had made a point of challenging assumptions about inherited talent and championing a more egalitarian emphasis on hard work.

The basic contours of the flux are familiar. And in the face of a similarly uncertain future, Americans now, as then, worry over early promise going to waste and also about youthful talents honed too fast. Yet this time around, off-the-charts children themselves have some hope of weighing in with *their* views—a goal that stymied William, and that Norbert didn't dare tackle until much later in life. A century after Leo Wiener and Boris Sidis riled their contemporaries by touting their pedagogical secrets and phenomenal sons, Yale law professor Amy Chua ['84, J.D. '87] offered a reprise, featuring her more conventional superdaughters. In 2011, her memoir *Battle Hymn of the Tiger Mother* left parents across the country gasping and gossiping at school gatherings and on soccer sidelines, in supermarkets and at dinner parties.

The tiger mother's guiding tenets echoed the Russian émigré fathers'. Start the talent-building process very early; assume the child is sturdy and full of energy; expect feats of mastery; value family loyalty above youthful autonomy or popularity with peers. The twenty-first-century version of the credo dovetailed with a demanding formula for exceptional performance that became a cultural catchphrase, thanks to Malcolm Gladwell's pitch for the research behind it in his best-selling *Outliers: The Story of Success* (2008). Starting with a study of elite violinists, the psychologist K. Anders Ericsson had surveyed pianists, chess players, athletes, and others to come up with what Gladwell coined the "10,000-hour rule." That was the quota of "deliberate practice"—effortful work,

starting early and sustained assiduously—required for outstanding accomplishment by anyone in any field. Talent, Ericsson boldly concluded, was beside the point. "The scientific formulation of the American dream," another psychologist called the rule.

Meanwhile, Angela Duckworth ['92], a psychologist at the University of Pennsylvania, was at work exploring the idea of grit, which she defined as "perseverance and passion for the Journal of Personality and Social Psychology in 2007. Her focus was on its importance to long-



In her 2011 memoir, Yale law professor Amy Chua '84, J.D. '87, went public with the kind of exposé usually staged by prodigies themselves in adulthood.

term success rather than to precocious accomplishment. But it was never too soon, she suggested, to "encourage children to work not only with intensity but also with stamina"—whatever their gifts. "To me, the most shocking thing about grit," Duckworth said in a TED talk in 2013, "is how little we know, how little science knows, about building it." Her own Chinese father seemed to have hit on one tactic, not that she was about to endorse it. He repeatedly told her, she wrote in her book Grit (2016), "You know, you're no genius!"

Amy Chua—also, as it happened, a daughter of Chinese immigrants—had a father who goaded rather differently. When she won a history prize but not the best-all-around-

student award in the eighth grade, he warned her, "Never, never disgrace me like that again." In her tell-all account of the gritfocused music training she insisted her daughters pursue, pushing them toward virtuoso heights on the piano and violin, she hid none of the conflict that roiled their household. Chua's husband and fellow Yale Law School professor, Jed Rubenfeld [J.D. '86], a bemused bystander, noted tooth marks on the piano in their big New Haven house. Sophia ['15], their superconscientious pianist, vented stress more quietly than did her younger sister, a natural on the violin. Lulu ['18] shredded music and shrieked in protest against her mother's tyrannical enforcement of "the diligent, disciplined, confidence-expanding Chinese way," which Chua promised would produce bold strivers—not "soft, entitled" American-style dilettantes (and definitely not "weird Asian automatons").

Shockingly honest about her tactics, Chua went public with the kind of exposé usually staged by prodigies themselves much later in life. She outed Chinese-style family pressure in pursuit of children's high performance, "an inherently closet practice" in the United States, she noted. At the same time, she blasted the queasy hypocrisy of American-style hovering: parents who panicked over missteps and signs of stress in their kids, all the while programming them to overshoot every benchmark of success. Chua wrote as a self-mocking iconoclast, an over-the-top "music mom" in a culture of mere soccer moms—not that she actually saw her girls on their way to soloist careers. She was "huggy" and goofy with them. She also bossed and cruelly derided, and dictated grueling practice schedules and banned slumber parties. Her daughters were huggy back and also explicitly hostile ("you're diseased") as they sped along. Chua's hyper regimen pulled no punches—far more openly coercive than helicopter parenting and far more openly combative than classic Asian parenting.

Chua's pursuit of excellence wasn't simply about stamina or grit. Somewhat paradoxically, she aimed to drum upstart drive into her girls, who'd been blessed with meritocratic credentials in their cradles. (They could all but coast into the Ivy League on their parents' coattails, thanks to legacies at Princeton and Harvard and faculty pull at Yale.) So Chua was ready—in fact, eager—to explode the filial piety so important to her forbears. She took bold satisfaction in doing what no prodigy-promoting predecessor would have dreamed of: broadcasting a defiant child's bitter rebellion, letting her daughters' voices be heard. Add pugnacity to stunningly pol-

A century later, Battle Hymn of the Tiger Mother left parents across the country gasping and gossiping at school gatherings and on soccer sidelines.

ished precocity, as well as perseverance and passion in pursuit of long-term goals: the blend, Chua suggested, just might amount to a secret sauce, for East and West.

Near the end of Battle Hymn of the Tiger Mother, when Chua let Sophia ease up on the piano after acing her recital in a Carnegie Hall auditorium, Lulu staged her revolt. Now 13, she reamed Chua out in the middle of Red Square—"I HATE YOU....You've wrecked my life....You're a terrible mother. You're selfish. You don't care about anyone but yourself. What—you can't believe how ungrateful I am? After all you've done for me? Everything you say you do for me is actually for yourself." Lulu cut back on the violin and took up tennis instead, ordering her mother to butt out.

"I don't want you controlling my life."

In the spirit of the parent ready, however belatedly, to acknowledge that she can't call all the shots, Chua invited her daughters to speak up in the memoir's "coda," as she struggled for a way to close the book. They weren't inclined to help, but Sophia put a key question to her: Was she after truth or a good story? To her mother's predictable answer, Sophia was ready with a wise response. "That's going to be hard," she told Chua, "because the truth keeps changing." She might have added that, for superchildren and prodigies alike, what truly matters is the cumulative sense they—not their parents—make of their accelerated quest for extraordinary achievement.

Like us, our predecessors over the course of a century have been thrilled by the thought that rapidly growing young bodies and flexible brains are primed to meet new challenges in ways that adults can't. Like us, our predecessors have also been unnerved by upstart impulses and lopsided young lives, not to mention unknown vistas ahead. The urge to domesticate prodigious children—to anoint them as marvels whose streamlined paths promise to realize our ambitions—has proved hard for modern American strivers to resist. Yet prodigies offer reminders writ large that children, in the end, flout our best and worst intentions.

In Ex-Prodigy, Norbert Wiener lamented that the only young marvels "the public ever hears of are those who 'point a moral or adorn a tale": "There is a tragedy in the failure of a promising lad which makes his fate interesting reading; and the charm of the success story is known to all of us. Per contra, the account of a moderate success following a sensationally promising childhood is an anticlimax and not worth general attention." Expectations, he felt, needed recalibrating. When he wrote down what he considered a prodigy's crucial entitlement, he laid out modest terms that could be applied to any childhood: the "chance to develop a reasonably thick skin against the pressures which will certainly be made on him and a confidence that somewhere in the world he has his own function which he may reasonably hope to fulfill."

Ann Hulbert '77 is literary editor of The Atlantic. She is the author of The Interior Castle: The Art and Life of Jean Stafford and Raising America: Experts, Parents, and a Century of Advice about Children. Her articles have appeared in many publications, including The New Republic, The New York Review of Books, and The New York Times Book Review.

# Montage Art, books, diverse creations



# A Composed Response

Jonathan Bailey Holland's meditations through music by JENNIFER MCFARLAND FLINT

NE MORNING in the spring of 2015, the composer Jonathan Bailey Holland, Ph.D. '00, was riding the bus to Boston's Berklee College of Music, where he's chair of composition, contemporary music, and core studies. He had recently been com-

missioned to write a new work for the Radius Ensemble, a local chamber group, and ideas for the piece tumbled through his mind. Also weighing heavily on him was the crescendo of news stories about police brutality against African Americans. Holland had challenged himself to watch the

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bystander and dash-cam videos of some of these events in their entirety. Bent over his phone, playing footage of Eric Garner's last moments on a Staten Island sidewalk, Holland eventually had to stop and look up. "The visceral quality of it...," he recalls. "It's difficult to take in."

With each repeat view and each new tragedy in the headlines, he felt increasingly entangled. "Simply because of who I am and what I look like, I could easily be on the other

side of these stories," he continues. "Suddenly the music couldn't be about anything but that psychological space."

The resulting work, "Synchrony," explores the idea of duality, or two realities existing at once—for example, the Black Lives Matter movement taking shape during the country's first black presidency, when "the notion of a post-racial America was thrown around," says Holland. The score is written for violin, cello, oboe, bassoon, and piano—an unusual combination but beautiful in its symmetry, says Jennifer Montbach '95, Radius Ensemble's artistic di-

rector. "There are two stringed instruments and two double reeds. Plus, with the similar ranges of oboe and violin, cello and bassoon, you have two pairs of instruments that cover an entire timbral range, top to bottom. Piano is the anchor." The piece opens with the gentle tonal sounds of the double reeds, and the music builds almost ceremonially as the others join in. Throughout, Holland expresses duality through musical devices: call and response, repetition, dissonance, instrumentation, and so-called "extended techniques"-unconventional ways of using an instrument.

Holland decided to add documentary voices to underscore the idea of juxtaposition—of hope and despair, harmony and discord. About two minutes in, President Obama's voice intones over the music, "We, the people, still believe that every citizen deserves a basic measure of security and dignity." From there the score becomes fraught with tension, and Eric Garner is heard repeating "I can't breathe" through the chokehold of a New York City police officer. "There's a very specific rhythm to how he says it, so I had the musicians pick up on the rhythm, which they keep up even after the audio clip ends," Holland explains. The oboist and bassoonist remove their reeds and breathe into their instruments in that same pattern; the pianist reaches into the instrument to dampen the strings, hammering out the rhythm to produce a dull, percussive sound without pitch. These extended techniques create a sound that's both percussive and breathy, like the wheeze and punch patterns of a hospital respirator.

Then comes a second set of voices. First, actress Cicely Tyson is heard addressing the young women in the audience of the Black Girls Rock awards ceremony: "The moment anyone tries to demean or degrade you in any way, you have to know how great you are. No one is going to bother to put you down if you are not a threat to them." Her words are countered by audio from the dash-cam footage of the arrest of Sandra Bland. The instruments respond with gnashing sounds, and the piece ultimately closes in a decrescendo of dissonant whole notes. This unresolved conclusion represents Holland's view of the national conversation about race.

Reacting to the world around him in this way is one of the artist's responsibilities, he says, but it's also impossible for him not to. "Dream Elegy," a somber orchestral piece

### Robotic Healthcare

A former physician, now associate clinical professor of medicine at University of California, San Francisco, Victoria Sweet, G'73, is appalled by the depersonalization of healthcare in its technological, institutional manifestations. In Slow Medicine: The Way to Healing (Riverhead, \$27), she recounts what transpired when her father suffered a grand mal seizure and was

hospitalized—on the incorrect impression that it was his first such incident and that he might have suffered a stroke. From the introduction:

I'd known that healthcare was getting ever more bureaucratic: that doctors and nurses...were spending more and more of their time in front of a computer screen entering health-care data. I'd experienced it myself. But until that week, I had no idea how bad it had become. If I, as a physician, couldn't get appropriate care for a family member in a lovely community hospital with well-trained staff who could?

What had happened to medicine and nursing? I asked myself.

To find out, I ordered up Father's electronic health records and went over his near-death experience.

The document was 812 pages long and took me four hours to read. It began not with the doctors' notes but with hundreds of pages of pharmacy orders; then

hundreds of pages of nursing notes, which were simply boxes checked. Only the doctors' notes were narrative, and mostly they were cut-and-paste. No wonder no one could figure out what was really going on. Still, to be fair, although I found mistakes in the records, Father had, after all, gotten discharged....l had to admit, § judging by those electronic health records, his stay in the hospital looked 100 percent quality-assured.

There was just something missing. And it was hard to put my finger on it.

Everything looked so good in the computer, and yet what Father had gotten was not Medicine but Healthcare—Medicine without a soul.

What do I mean by "soul"? I mean what Father did not get. Presence. Attention. Judgment. Kindness.

Above all, responsibility. No one took responsibility for the story. The essence of Medicine is story—finding the right story....Healthcare, on the other hand, deconstructs story into thousands of tiny pieces...for which no one is responsible.

A robot doctor could have cared for my father just as well.



that he wrote around the same time as "Synchrony," came from a similar psychological space, sparked by the senseless deaths of Tamir Rice and Michael Brown. "I had to write [it] as a meditation," he says, "as a way of using my art to work through the weight of all of those events."

Holland, who grew up in Flint, Michigan,

and earned his bachelor's at the Curtis Institute of Music and his Harvard doctorate in composition, didn't take this approach from the outset. Early in his career, he had hang-ups about "who I was supposed to be as a classical composer," he says. "I didn't want people to expect a certain kind of music because I'm a black composer, I wanted people to come to my music without any preconceived ideas about what the music was going to be." At some point, he stopped worrying about how to manage audience perceptions. Soon after this realization, he completed a 2003 commission for the De-

troit Symphony Orchestra, influenced by Motown, R&B, soul, and other popular music genres he'd always listened to. It was, he thinks, the first time he consciously decided to let that side of him come out clearly in his music. He wrote what felt true.

Today, Holland tries to convey the same message to his composition students: "If I'm not telling you who I am in a genuine way, I'm not sure why you'd want to listen to what I have to say," he reasons. Without that, he says, "Who cares what I'm writing?"

### Sketch Artist

Colin Jost writes jokes for page, stage, and camera. by OSET BABÜR

neatly captured in a single piece of work, but with Colin Jost '04, his "Mocktails," a collection of cartoons scribbled on cocktail napkins, are especially telling. A JetBlue plane feels blue, lamenting that it misses its friends; a piece of jerk chicken rattles off some uncouth remarks. This brand of droll wordplay is Jost's bread and butter. It comes through in his stand-up performances ("I went to Party City the other day, and it was totally dead," he joked during a show in Boston this fall) as well as in his contributions to *The* 

New Yorker's humor section, Shouts and Murmurs—"Oh, droit moral? It means 'droid morals.' Like it's such an obvious moral question that even a robot would know the answer."

Jost has been writing comedy since his first year with the Harvard Lampoon, and performing stand-up comedy for more than a decade. But transitioning between writing comedy and performing comedy isn't simple—and what's more, he says, writing for stage, screen, and print all require different techniques. "With stand-up, the rhythm really differs," he explains. "I'll try a sketch during a stand-up show, and it'll work on

stage, and I'll think, 'Oh, this will be great to do on *SNL*,' and I'll try it at dress rehearsal and it will just not work at all. There's this special rhythm to being either at a club or theater."

When developing a sketch for SNL, Jost often starts by thinking of a voice, and then deciding which actor could most naturally embody it. He created the character Drunk Uncle, for example—meant to "sound like an uncle pretty much everyone has"—by working with cast member Bobby Moynihan. Drunk Uncle makes comments ranging from cringe-worthy to downright racist, almost always circling back to how America just isn't the country it used to be, While dreaming him up, Jost and Moynihan thought about the character's family, his pleasures, and his grievances, and slowly, his personality began to develop: sloppy, brash, old-fashioned.

> This technique is key to creating strong SNL characters, but Jost has found that it actually hampers his ability to write the kind of humor that appears only on the page. Early in his career, he had been keen to contribute Shouts and Murmurs because the columns struck him as similar to what he'd done for the Lampoon. But after years of working on the show, he found it difficult to switch back to magazines. "If I had someone's voice in mind for a character that I was writing, other people didn't necessarily hear the same voice," he says.

> These days, Jost is best known for co-anchoring SNL's Weekend Update, a segment that parodies a traditional news desk. It's a big seat to fill: previous hosts have included Chevy

Colin Jost (left) with his co-host, Michael Che, at the Weekend Update desk for Saturday Night Live



Chase, Seth Meyers, and Amy Poehler. But after years behind the scenes, Jost itched to put his stand-up skills to use. The Update desk turned out to be the perfect fit, despite his initial anxieties. "I didn't feel the selfconfidence I had on stage as a stand-up at SNL, and that was a hard, hard transition," he says. "I knew that I either had to try and make Weekend Update work, or I would have to go somewhere else to perform." His signature deadpan and smirk, along with his palpable chemistry with co-anchor Michael Che, have helped shape some of the segment's most successful recent moments, from roasting then-candidate Don-

ald Trump's leaked Access Hollywood tape to interviewing memorable characters like Kate McKinnon's Angela Merkel.

Another screen comedy challenge that Jost regularly grapples with is specific to SNL, which, true to its name and trademark line, airs live. This means Jost and Che have to be strategic when joking about news items that are breaking or still raw, because there isn't a chance for do-overs. There's no shortage of hot topics, from the Harvey Weinstein sexual-abuse scandal to the Trump administration's response to Hurricane Maria's devastation of Puerto Rico. In cases like these, Jost says the trick is to pinpoint who's at fault, either for hypocrisy or abuse of power. "Those are the subjects you're trying to deal with," he explains. "You don't want to collaterally damage victims." He also says it's important to refrain from becoming pedantic or turning the segment into a moral lesson; this means considering whether a joke will land with the audience or only make it appear the show is taking a serious topic lightly. Such comic license can be a burden, Jost says, given how much material there is to choose from, "but it's also really lucky," because it's an opportunity to elevate topics that really matter. It's all about picking and choosing the right jokes for the right issues.

### A Novel Take on Eternal Life

Dara Horn breathes life into classical Jewish sources. by Marina Bolotnikova

ARA HORN '99, Ph.D. '06, would never choose to be immortal. In her new novel, Eternal Life, this is the problem facing Rachel, a 2,000-year-old Jewish woman who made a bargain with the high priest at the Second Holy Temple: in exchange for the survival of her sick son, she gives up her own

death. "What reasons are there for being alive?" Rachel asks herself over the centuries. None of them—to love God; to serve others; to feel joy, to build for the future—has any meaning without the constraints of a normal human lifespan. As she watches her dozens of husbands and children die before she does, her relationship with God comes to feel "sadomasochistic."

Eternal Life might be the most fantastical of Horn's books, but it also emerges most directly from her daily life. "Something I've noticed was that friends of mine with smaller families become very nostalgic as their children grow up and pass milestones," she says. "This is not at all my experience. I'm a mother of four young children, and when you have that many children, you keep going to preschool graduations over and over again. You just keep resetting the clock: 'Oh, it's the first day of kindergarten again!"

Immortality is not a particularly

original subject in literature, but stories of eternal life, she says, "are almost never about fertile women." In her novel, Hannah, a gifted biologist who is researching life extension, discovers that her grandmother Rachel has the telomeres of a teenager. While reading about advances in anti-aging for the book, Horn, who spent her childhood



in suburban New Jersey and is now raising her family there, thought back to her own, repetitive domestic experience: "Who in their right mind would want to go through this again and again?"

With Rachel's life spanning Jewish societies—continually dying yet reborn after each disaster—from the Roman Empire to

> modern Israel, Eternal Life reads as a metaphor for Jewish history. The novel also reflects the contrast between the Judaic and American relationships to time, says Horn. "In the United States we have this mythology that your past doesn't matter—that's the premise of the American experiment. The premise of Judaism is exactly the opposite, because the founding mythology of Judaism is that when God gave the Torah to the Israelites at Mount Sinai, it wasn't just that generation of Israelites that was present, but all their future descendants were present. The most important thing in your life happened thousands of years before you were born."

Horn moonlights as a professor of Jewish literature (she has held the Weinstock visiting professorship in Jewish studies at Harvard), and her novels, five in all, have been recognized for their engagement with the texts she has worked on academically,

often colliding in funny ways with her modern characters. "The great thing about getting a doctorate was that no one expects you to finish it!" she says. "Every time I would get stuck on my dissertation I would procrastinate by writing my novel, and vice versa, so I never felt like I was doing any work."

Growing up, she sensed what she de-

scribes as a thinness to American Jewish literature. "In the 1980s and '90s, when you told someone you were interested in Jewish literature, they'd hand you a book by Philip Roth. This whole generation of Jewish writers from the last century were really writing more about the first-generation American experience, the experience of Judaism as a social identity. And I was like, 'This is so

not what I'm looking for." Those authors dwelled on questions about assimilation and authenticity; Horn was uninterested in that conversation (which she calls "annoying"). Since her college and doctoral work, she has come to link this thinness to the disappearance of Hebrew and Yiddish context from contemporary American Jewish writing. "When you're reading modern Hebrew,

there are references to ancient Hebrew embedded in the work—you can't avoid it. So many figures of speech are linked to ancient sources and the commentaries on them."

Horn didn't start writing fiction until the year after college, while on a miserably lonely postgraduate fellowship at the University of Cambridge ("England just wasn't my

scene," she says, laughing). She had always been terrified of the genre, until the realization that "books don't come out of nothing"—that they're in conversation with other books—gave her the confidence to make up stories of her own, to fill the gaps in modern Jewish literature.

"When I first started writing my novels, part of my motivation—in the way that you're massively ambitious

when you're younger and then realize, 'Oh, that was dumb'—was to 'fix' this problem," she says. "I thought, wouldn't it be cool if we could have this in English? Contemporary stories that bring alive these ancient texts?" And so Horn's 2006 novel *The World to Come*, written while she was avoiding her doctoral work, weaves the life and stories of the Soviet Yiddish writer Der Nister into

the present day. Unlike a Jonathan Safran Foer or a Michael Chabon, she fills the void of "Jewish identity" with a deep knowledge of Jewish sources.

Horn's interest in engaging imaginatively with Jewish texts extends to her personal religious practice. "We have a Passover Seder that's extremely epic, where we put up a pyramid in the living room, I wear a pharaoh costume and my husband wears a Moses costume, we have 'plague drops' where stuff falls out of the ceiling, we have a 'hail cannon' that fires Ping-Pong balls into the room, and we have a drone strike for the last plague," she enthuses. "What's important to us," she emphasizes, "is less about the ritual aspects, or that you have to believe x, y, and z. What's important to my family is being invested and creatively engaged with this tradition, which is of a piece with what I'm doing in my books."

She aims to make the Jewish tradition welcoming not just to a Jewish audience, but to a broader readership. "Is everyone going to understand every reference in there? No, but that's not a problem. When I'm reading Salman Rushdie, I'm not sitting here waiting for an explanation of why some character is covering her hair. I don't want to read a book with footnotes—I want to be welcomed into a world."

### America's Little Giant

Revisiting the father of the Constitution in an era deeply divided by factionalism

by Lincoln Caplan

olley payne todd called her soon-to-be husband, just before she met him, "the great, little Madison." She was about to turn 26, a widow who had lost her first husband and their baby son to yellow fever and had been left with their toddler son and a small amount of money. James Madison Jr. was 43, a congressman from Virginia temporarily frustrated by politics, and a gentleman by birth who would soon inherit more than 100 slaves and 4,000 acres. They met in 1794 in Philadelphia, America's temporary capital while Washington, D.C., was being built.

In his estimation, she was "5 feet, 7 inches

and three quarters, well proportioned, her features pleasing though not remarkable in form except her mouth which was beautiful in shape and expression." He was three or four inches shorter, physically frail and prone to severe migraines, and deeply introverted. He asked her to marry him because, quite unexpectedly after failing in one previous attempt at courtship and becoming a bookish bachelor, he fell in love with her. She accepted his proposal because he was "the man who of all others I most admire." The marriage, she wrote, would provide "everything that is soothing."

Dolley Madison was the presidentress (as

she was called after her husband was elected president in 1808) who made the role of first lady an influential and gracious position as one of the new capital's most ebullient and popular hostesses. She founded a home for orphaned young girls while she and Madison lived in the White House, and as his widow and a beloved public figure, she was made an honorary member of Congress, among other tributes, and chosen to send the first person-

al telegraph message.

In James Madison's public career, spanning four exceptionally productive decades, this private passion of his—what he called

The Three Lives of James Madison: Genius, Partisan, President, by Noah Feldman '92 (Random House, \$35.)

"the sentiments of my heart"—is the most visible evidence of the force that fueled him. As Noah Feldman, Frankfurter professor of law, writes in his excellent, authoritative, and lucid reassessment of Madison, "Dolley frequently expressed opinions and emotions that Madison hid from view." He was known as a dispassionate man of reason, systematic and mildmannered, who preferred the company of ideas and lacked the need for attention many politicians have. Yet his profound sense of purpose made him a statesman of enormous impact. He imagined the United States as a unified nation rather than a confederation of republics with diverging interests in agriculture and trade, and helped shape that country.

Madison is rightly known as the father of the United States Constitution. (Jack Rakove, Ph.D. '75, the Stanford historiwhom Feldman acknowl-

edges as "the master of Madison scholars," called him "the Greatest Lawgiver of Modernity.") From 1776, when he was only 25, until 1791, he was: the primary dreamer, designer, and drafter of the nation's fundamental law; one of the chief publicists in getting it ratified; and its principal modifier as the proposer and drafter of the Bill of Rights. He embraced the First through Tenth Amendments to protect individuals from government infringement and stave off a second constitutional convention, which he feared would rip the northern and southern states apart. (Rakove wrote that Madison had the "capacity to think like a historian and predict like a social scientist.") He is less well known and secondarily recognized for his accomplishments between the ages of 50 and 67, when he served as Thomas Jefferson's secretary of state (1801 to 1809) and the country's fourth (and first war-time) president (1809 to 1817).

Feldman's important contribution is to present the chapters as lawgiver and statesman and what Madison did in the decade in between as "three distinct, contrasting public lives." He was the genius behind the Constitution and the Bill of Rights. Then he was the partisan who invented the concept of a political faction in loyal opposition when he launched the Republican Party to challenge





an and political scientist Portraits of James Madison, 1816, by John Vanderlyn and of Dolley Madison, 1804, by Gilbert Stuart

the Federalist Party. After it morphed into Jefferson's and his Democratic-Republican Party, they led it to national power. Finally, he established America's place in the world, as secretary of state and, during the War of 1812, as president. Feldman presents these chapters as a story of Madison's intellectual, psychological, and political growth, starting with his college years at Princeton. (It was "the only institution on the continent where a diligent student could acquire the foundations of a truly excellent education," Feldman advises, since Harvard and Yale were then "parochial in their teaching.") This growth was reflected in a series of surprising and major about-faces in his thinking about the needs of the new nation. Nineteen years younger than George Washington, 16 years younger than John Adams, and eight years younger than Jefferson, who led the American Revolution, he was in the group sometimes identified as the "young men," including Alexander Hamilton, six years younger, whom the Revolution made into leaders and who made the revolutionary era so creative.

In Madison's view, the basic purpose of the Constitution was to create a national republican government with representatives

carrying out the will of the people by law, not force. Officials would do that by devising domestic and foreign policies and enacting them into law, and by collecting taxes to carry them out. The basic risk of this form of republicanism was that the majority—no matter how virtuous, self-restrained, or Godfearing—would violate the rights of minorities. Madison's first solution was "enlargement." He favored a nation large enough that the interests and factions within it would be less likely to overlap and, if they did, it would not be easy for them to come together and form a dangerous majority. His second solution was checks and balances. He foresaw factions, whether political, economic, religious, or otherwise, checking each other. He envisioned branches of government expressly designed to balance as well as check each other, so the government did not set up "an interest adverse to that of the whole society." In Federalist No. 51, Madison wrote: "Ambition must be made to counteract ambition," with the Constitution giving "those who administer each department, the necessary constitutional means, and personal motives, to resist encroachments of others." Part of his design was to attract outstanding and ambitious people into government. As Feldman writes, his goal was "to eliminate

# Other founders regarded Madison's idealistic goal, "to eliminate the need for political parties," as naive.

the need for political parties."

It was an idealistic vision, which some other founders regarded as naive. Hamilton wrote that "Patricians were frequently demagogues" who could stir factions into a national majority, because an "influential demagogue will give an impulse to the whole." Hamilton was neither patrician nor demagogue, but as the secretary of the treasury in Washington's new Federalist government, he found meaning in the Constitution that Madison hadn't intended it to hold. For Hamilton, a strong national economy was as essential to the new country as an effective national government. He convinced Congress to charter a national bank and to support a permanent national debt, which Madison viewed (Feldman's words) "as a blatantly unconstitutional attempt to shift power from the people to the capitalists." Hamilton prevailed, becoming the most influential person in the nation's founding who never served as president, and "their brutal struggle over the meaning of the Constitution and the future of the United States gave birth to American partisanship."

When Jefferson became president in 1801 and made Madison his secretary of state, Madison (Feldman again) "undertook a

sixteen-year odyssey to establish America's place in a world shaped by the long war between Great Britain and France." Initially, his goal was to use power in the form of economic sanctions to secure shipping to Europe—"and to do so without an army or navy that could potentially subvert the republic from within." But sanctions did not work well enough and as president, "Madison gambled on decisive action. Overcoming his republican aversion to military action," Feldman writes, "he asked Congress to declare the War of 1812" and "when the British turned the tables and tried to invade the United States, the constitutional republic was strong enough to defend itself."

But barely. The British easily overran the nation's capital, burning the White House to ruins. They then set their sights on Baltimore, the country's third largest city and the last stronghold preventing them from marching up and down the coast. The battle for Baltimore lasted three nights and days. Francis Scott Key, a lawyer and poet from Maryland, witnessed the bombardment of the city's Ft. McHenry. In "the dawn's early light," when he noticed a U.S. flag flying over the fort, signaling its survival, he started a poem called "The Defence of Fort M'Henry." It got printed

in handbills and newspapers and was set to the tune of a popular song. A century-plus later, it became the national anthem.

Madison gave his final message to Congress in December 1816—America's fortieth year as a nation. It was the Constitution's twenty-fifth year of providing for what he called "a government which watches over the purity of elections, freedom of speech and of the press, [and] the trial by jury." The speech was about the Constitution because, in Feldman's assessment, "Constitutional freedom was the central core of Madison's legacy." After designing the Constitution "to preserve liberty," Feldman writes, Madison had "created the Republican Party to defend constitutional liberty against subversion by the Federalists," and had maintained it "even during the war he prosecuted." He "truly believed that the Constitution would produce domestic tranquility and friendship, then spread those same values of peace globally, creating a world of free peoples coexisting peacefully and ruling themselves under their own free constitutions." But he never extended that freedom to slaves. He maintained until his death (in 1836, when he was 85) his "lifelong contradictory views of the enslaved people on whose labor he depended," Feldman explains. He thought of them as human beings and wanted to be seen as treating his slaves well. But he considered them property and said it was morally permissible to own and use them.

IN HIS PREFACE, Feldman writes, "Above all, I hope to use Madison's creativity, commitment, and political flexibility to shed light on the birth, development, and survival of America's distinctive form of constitutional government." In a TED talk last summer, he set out how he thinks Madison's constitutionalism equips the United States to survive its current acute partisanship and extreme polarization. At the heart of this mechanism is free speech under the First Amendment: if you are out of power, which about 60 percent of Americans think they are today, you have the right to say that the government is terrible and discuss how to fix it. Along with free speech comes free association: the First Amendment also protects "the right of the people peaceably to assemble," in organizations formed to help fix America's problems, including the make-up of the government. Just as important, Feldman went on, is the separation of powers. If the president doesn't follow the rules of the

# Chapter & Verse

Correspondence on not-so-famous lost words

Chapter and Verse debuted in this magazine's July-August 1979 issue in an effort to assist Robert B. Wood '40, who had sent the editors a query they couldn't answer, but hoped their readers could: "My sainted grandmother, born in Scotland, with some time in London before settling here in the U.S., sang a fine ditty—no doubt music hall somewhere—which started, 'Oh, what will be the outcome/ If the income don't come in?/Where from will come the money/To buy the food and gin?' Good question! But that's all I remember. Where from, and what's the rest of it?"

His question, though rerun in the digital age, remained unanswered until Eve Golden forwarded "What's Gonna Be the Outcome If the Income Don't Come In?" ©1935, with lyrics by Eddie Moran and music by Harry von Tilzer, uploaded by some kind soul to the Internet. An older, British version may lurk somewhere, but with this serendipitous citation, C&V bows to the resources of the World Wide Web and becomes an occasional item only. Send inquiries and answers to "Chapter and Verse," Harvard Magazine, 7 Ware Street, Cambridge 02138 or chapterandverse@harvardmag.com.



For more online-only articles on the arts and creativity, see:

A Transformative Gift of Dutch **Drawings** 



donates his collection to the Harvard Art Museums. harvardmag.com/abrams-17

### Father and Son, and E.E. **Cummings**

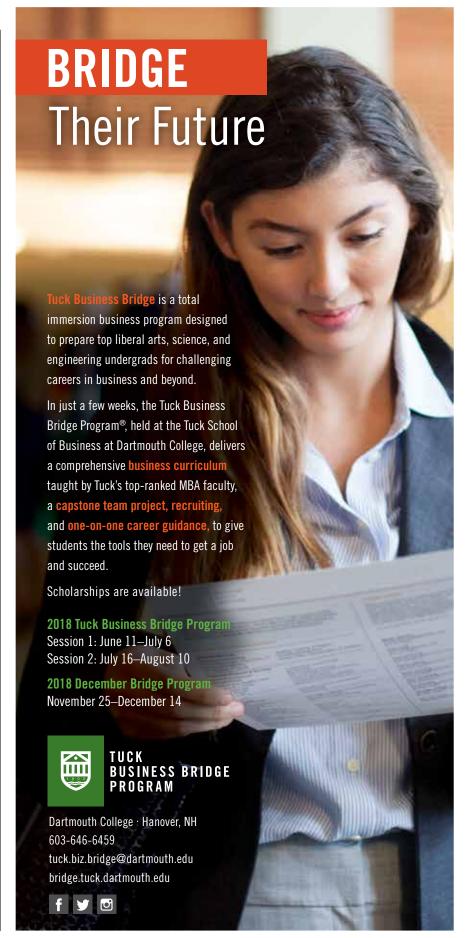
What one undergraduate learned inviting E. E. Cummings to tea harvardmag.com/cummings-17

### Past's Presence

John Wang '16, winner of Radcliffe's public art competition, reflects on art and historical perspective. harvardmag.com/johnwang-17

Constitution, federal judges have the authority to make him. He doesn't rule as an autocrat because he can only propose laws, not pass them. The president needs Congress to enact his policies, but Congress must look to the center of the political spectrum to decide whether a policy is acceptable. The center holds the power because elections for the whole House of Representatives come every two years. Feldman's last line, elongated for emphasis, was: "It's going to be okay."

Another view, arguably more realistic, is that this moment in American history is gravely testing both the elasticity and strength of Madison's constitutionalism. No voting expert believes in the purity of American elections these days. Digital elections are vulnerable to hacking from near and far. Even when they are not hacked, elections seem unfairly rigged as a result of the heavy sway of big money. Voter fraud is negligible in the United States, but, in the past two decades, Republicans have made it much harder to vote in much of the country: 33 states enforce voter ID laws, 18 of them requiring photo IDs, which are designed to reduce the number of minority voters and clearly do. And the obsolete Electoral College has twice in the



past 20 years awarded the presidency to the loser of the popular vote. No expert on freedom of speech or of the press believes they are serving American democracy as well as they must, thanks to attacks from the president and, more menacingly, assaults from bots and Web brigades. The latter engage in reverse censorship by weaponizing free speechdrowning out real speech with floods of propaganda and sabotaging real journalism with fake news. No expert in law or political science believes the separation of powers is working as it was meant to. Congress rarely

checks the president or serves the needs of the American people.

Feldman's TED talk began with a neat summary of the Madison-Hamilton feud as the birth of partisanship in American politics and moved quickly to how the Constitution provided a mechanism for resolving that divide and many subsequent ones in American history. His book explains comprehensively how he thinks that happened. Using the constitutionality of the national bank as an exemplary case, and almost as an aside, Feldman observes that "Madison's legacy

included recognition that the Constitution could evolve—and that its framers' original intention did not always control its meaning." (Mary Sarah Bilder, J.D. '90, Ph.D. '00, winner of the Bancroft Prize for Madison's Hand: Revising the Constitutional Convention, wrote about the Constitution, "In 1787, the framers were struggling to save the United States from division, potential invasion, and collapse. No one had the luxury of even imagining that each and every word possessed an invariable, sacred meaning.") Madison had been certain the document he shaped didn't give Congress

## Off the Shelf

Recent books with Harvard connections

Safe Spaces, Brave Spaces: Diversity and Free Expression in Education, by John Palfrey '94, J.D. '01 (MIT, \$19.95). The author, previously Harvard Law's vice dean for library and information resources, now head of Phillips Academy, Andover, plunges into the fierce debate over "snowflakes" and calls to restrict speech. To reconcile liberty and equality, free expression and diversity, he makes the case for safe spaces (say, for LGBTQ students) and brave spaces ("learning environments that approximate the world outside" academia-where robust, unconstrained debate in pursuit of truth proceeds) and says the latter should envelop "the vast majority" of students' time during their education.

**Looking with Robert Gardner,** edited by Rebeca Meyers, William Rothman '65,

Ph.D. '74, and Charles Warren '69 (SUNY, \$59, \$35 paper). Critical appraisals, copiously illustrated, of the work of the late, pioneering anthropological filmmaker ('48, A.M. '58) and founder of the Harvard Film Study Center.

Alongside other contemporary interpretations of the Ur Founder's applied intelligence (see the review at page 56), Stanford's Jack N. Rakove, Ph.D. '75, revisits A Politician Thinking: The Creative Mind of James Madison (University of Oklahoma, \$29.95). He considers Madison less as persuader than as analyst, thinking his way into issues before, rather than when, making a case to others.

Ever the Leader: Selected Writings 1995-2016, William G. Bowen [LL.D. '73], edited by Kevin M. Guthrie (Princeton, \$29.95). Bowen, a past president of Princeton and the Andrew W. Mellon Foundation, was an authoritative voice for higher education's values, a powerful advo-

cate for diversity in admissions, a sharp critic of athletic excesses, and an astute analyst of educational technology. From an inaugural speech for a new Williams

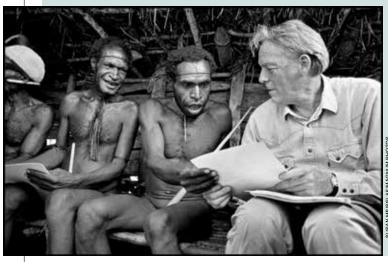
Thirty years after filming them for Dead Birds in 1959, Robert Gardner returned to Indonesia to share images with members of the Dani tribe.

president: "One of the most insidious aspects of being part of a wealthy, prestigious institution is that the association can lead to a most unfortunate blend of pomposity, smugness, and complacency. The assumption of superiority is what gives elitism a bad name." In face of pressure to be practical, he continued, "colleges and universities have always had an otherworldly side." A useful gift, perhaps, for Harvard's future president.

**Digital World War,** by Haroon K. Ullah, M.P.A. '02 (Yale, \$25). Social media, useful in helping oppressed populations gain voice against oppressive regimes, have been weaponized by Islamic extremists. The introduction—which describes a virtual, online beheading and its subsequent realization via an actual execution by machine gun—is a vivid point of entry to a disturbing threat.

Crusade and Jihad, by William R. Polk '51, Ph.D. '58 (Yale, \$37.50). An ambitious one-volume overview of what the subtitle calls "The Thousand-Year War between the Muslim World and the Global North." Given Americans' cartoon understanding of these forces, it is bracing, and maybe helpful, to be guided through such themes as "the Muslim recognition that, as practiced and conceived, Islam did not suffice to stop the European powers from invading and occupying their lands"—giving rise to a nationalistic response.

Life without End, by Karl S. Guthke, Francke professor of Germanic art and culture emeritus (Camden House, \$99). As biologists and computer scientists raise the possibility of extended life or deferred aging, what has literature to say about immortality?



power to charter a bank, but after 20 years, when each branch of the government had recognized the bank's validity, he accepted it as constitutional.

Yet behind Feldman's observation is the knowledge and acknowledgment that Madison arrived at that moment of assent only after decades of brutally partisan disagreement. During them, in Feldman's words, he set out "to destroy his enemies using the tools of faction." Madison constitutionalized this disagreement by charging that his enemies were "violating the core principles of the republic" and vice-versa. From the vantage point of 200 years after Madison's triumphant retirement as president, the constitutional system he had a giant role in shaping absorbed the hyperbole of his era and managed its fallout. Everything appears to have turned out okay.

In the presidential election of 1800, however, electors from the 16 states gave 73 votes each to Thomas Jefferson, the Democratic-Republican candidate, and to Aaron Burr, the

party's candidate for vice-president. Federalists in the House of Representatives refused to let Jefferson become president. Passion plainly crushed reason. The constitutional system was in a grim crisis. It was serendipity, not principle, that led to Jefferson's election on the thirty-sixth ballot, and then to 24 years of Republican rule, and ultimately to the Era of Good Feelings. "Madison's constitutional machine was working," Feldman declares about Jefferson's election. But barely.

When we sing the national anthem these

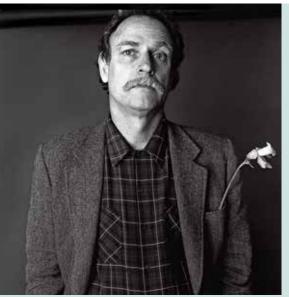
Lots, and much of it not good, Guthke explains, in a survey sweeping in Swift, Barrie, Babbitt, Amis, Rushdie, and many more. Hopefuls may be brought back to earth by a section titled "Immortality and Its Discontents"-a problem addressed anew in a contemporary novel (see page 55).

In City on the Verge (Basic, \$30), journalist Mark Pendergrast '70 returns to his natal city, Atlanta, to see whether a 22-mile circumferential streetcar corridor, the BeltLine, can knit together a sprawling, divided community that is the de facto capital of the Southeast. From the policy-analyst's perspective, Stephen Goldsmith, Paul professor of the practice of government, and Neil Kleiman, of NYU, advance A New City O/S (Brookings, \$31.99 paper),

proposing ways mayors (Goldsmith's former occupation, in Indianapolis) can harness technology, data, and social engagement to, you know, make local government work.

The Year I Was Peter the Great, by Marvin Kalb, A.M. '53 (Brookings, \$24.99). A memoir of 1956: the USSR's temporary post-Stalin thaw, the crushing of the revolt in Hungary, and the suggestion that Russia might have a different future. The journalist was then an attaché in the U.S. embassy in Moscow, fluent in the language, fortified by his Harvard studies, and able to travel the country widely.

And Again: Photographs from the Harvard Forest, by John Hirsch (distributed by Harvard University Press, \$50). Useful for armchair visiting during the winter; a photo collection that captures the



Tony Mendoza: "April 20, 1993: The best expression I could come up with the day after I was diagnosed with leukemia.'

forest's simultaneous beauty and utility and importance as a working scientific venue. Essays by David R. Foster and Clarisse M. Hart, the forest's director and its outreach and development manager, and by writer and photographer Margot Anne Kelley complement Hirsch's images.

Humanity without Dignity: Moral Equality, Respect, and Human Rights, by Andrea Sangiovanni '95, Ph.D. '06 (Harvard, \$39.95). A philosophical inquiry into the basic respect due fellow humans advances the useful, if perhaps uncomfortable, argument that it depends not on intrinsic human qualities but rather on a negative: aversion to cruelty. Pursuing a separate moral inquiry, Bruce Robbins '71, Ph.D. '80, now at Columbia, examines, in The Beneficiary (Duke, \$23.95 paper), the literary idea of the prosperous helping the poor, and then applies the concept to contemporary problems of global consumption, inequality, and social justice.

Financial Decisions and Markets, by John Y. Campbell, Olshan professor of economics (Princeton, \$75). An exhaustive, mathematically dense text based on the author's graduate course, "Asset Pricing," that provides academic underpinnings for investing. Campbell knows about practice, too: he is a founding partner of Arrowstreet Capital (\$89 billion under management) and a former member of Harvard Management Company's board. Confronting the material, individual investors will perceive that institutional investing is a different proposition entirely.

**Building the Intentional University:** Minerva and the Future of Higher Education, edited by Stephen M. Kosslyn and Ben Nelson (MIT, \$45). Kosslyn, former professor of psychology and dean of social science at Harvard, is now chief academic officer of Minerva Schools, the interesting experiment in liberal arts profiled in "An Educated Core" (July-August 2017, page 47) and explained in thought-provoking depth here.

Pictures with Stories: A Memoir, by Tony Mendoza, M.Arch. '68 (Thomson-Shore, \$27). In 1973, the author quit his job as an architect "and became an artist." His newest collection of photographs and quirky text (including some past favorites like Ernie the New York cat) demonstrates the continuing felicitous result.

days, we end with a declaration: "Oh say does that star-spangled banner yet wave/O'er the land of the free and the home of the brave." Francis Scott Key ended that stanza with a question mark. His poem about the British siege of Baltimore reflected uncertainty about the outcome and about the continuing freedom of the country. That overlooked question mark is a reminder about this era's

bitter uncertainty as well and about the farreaching divisions among Americans. The national anthem is caught up in that turmoil and in vitriol about whether it's more patriotic to kneel or stand during the anthem.

Feldman's optimistic book is consummately well researched and well written. In many ways, it's eye-opening and inspiring. Yet despite the author's intention, in the current po-

litical climate the book reads like a warning about the sometimes-steep price of passion and prejudice—not like a TED talk about the once-reassuring reliability of reason.

Contributing editor and legal journalist Lincoln Caplan'72, J.D.'76, who is a senior research scholar at Yale Law School, wrote "The Justice Gap," about civil legal services, in the November-December 2017 issue.

### ALUMNI

# From Here to Timbuktu

A globe-trotting monk with the Benedictine "survival gene" seeks out treasured manuscripts.

by nell porter brown

ow Father Columba Stewart '79, a Benedictine monk from Minnesota, came to be hiding in a Timbuktu hotel during a jihadist attack last summer is a story that begins in the fifth century.

But the short answer is: he had flown to the medieval center of learning (and site of a United Nations peacekeeping mission since 2013), to start a new archival project—digitizing tens of thousands of documents in the Imam Ben Essayouti Library. The col-

lection holds "everything from commentaries on the Qur'an to letters, scraps of poetry, land deeds, just the whole written culture," says Stewart, executive director of the Hill Museum & Manuscript Library (HMML) at Saint John's University, about 80 miles northwest of the Twin Cities.

Christian monks have helped safeguard cultural patrimony for more than a millennium. As followers of Benedict of Nursia (c. 480-540), Stewart says, Benedictines ultimately became "leaders in the copying and transmission of texts." In the last 15 years, he has taken that tradition to some of the world's most volatile regions—Syria, Iraq, Israel, and parts of the Balkans—as well as India, Ukraine, and Russia, to help conserve documents threatened not only by religious wars and geopolitics, but also by poverty, natural disasters, and climate change. "We've already done a lot of the Christian material," says Stewart,

who holds an Oxford doctorate in theology. "If we want to grow, the question becomes, "If we think the preservation of general culture is valuable, then the growing edge of that for us is Islamic materials, not to mention East Asian stuff. Heritage is heritage. And the intellectual argument is, 'Why not get all the material, of all the sides?"

HMML is currently digitizing more than 250,000 ancient Islamic manuscripts, books, and literary treasures smuggled out of Timbuktu, in central Mali, in 2012 and 2013. That

effort, the library's largest project to date, is centered at a 12-camera studio in Mali's capital, Bamako. Catalogued materials are accessible through HMML's "virtual reading room," developed and launched during Stewart's tenure, where more than 25,000 complete manuscripts from libraries across Europe, the Middle East, South India, and parts of the Balkans are already online.



HMML also holds thousands of rare books and Bibles, maps, and artwork reflecting Christian culture and theology. More recently, the library has been collecting early printed books (physical counterparts to the virtual, digitized manuscripts online) in Arabic, Armenian, Ethiopic, and Syriac, including important Qur'ans.

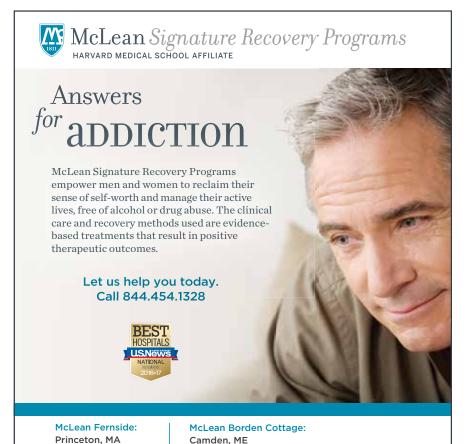
For his August trip to Mali, Stewart had lined up Swedish and British support and seats on a UN plane to Timbuktu. Within hours of landing, while eating lunch in the hotel courtyard, he heard gunfire. Ushered into an interior room, he and two colleagues learned by way of phone texts that terrorists had raided the UN headquarters, but that help would arrive.

Hours of waiting wore on. "We heard helicopters overhead, then sporadic shooting"—some of which seemed to come from the hotel garden—"then eerie quiet," Stewart recalls. "I don't like just sitting there, not knowing what's happening, not being able to control anything. We did pray, since all of us are Catholic...and, good news, there was a bottle of scotch in the room, and the hotel people brought us food." Around 9 P.M. Swedish soldiers arrived and took the group to a command post, where Stewart spent two days getting the digitizing project under way before returning to the bucolic campus on Lake Sagatagan and Saint John's Abbey, where he's lived for 37 years.

Stewart isn't typically that adventurous. Each day, he rises at 5 A.M., swims for 35 minutes, and then, fussy about the strength of his coffee, grinds his own beans and brews a cup in his room. By 7 а.м., he's in church for the first of four daily prayer sessions with his brothers.

All 150 Psalms are recited in a monthly rotation, inspired by The Rule of Saint Benedict (its 73 pithy chapters range from "At What Hours the Meals Should be Taken" to "If a Brother is Commanded to do Impossible Things"), which was copied and used under Charlemagne and his son, Louis the Pious, to reform Western monasticism.

After breakfast, Stewart gets to work at HMML, breaking for midday prayers and lunch at the monastery, finishing up generally before the 5 P.M. Eucharist. He wears either a black robe—although all that fabric is cumbersome; it catches in the wheels of his office chair, he says, "so you have that Isadora Duncan thing where you're sort of strangling yourself"—or a practical uniform



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Father Columba Stewart and Syriac monk Abouna Shimon Can pore over ancient manuscripts in the St. Mark's Syriac Orthodox Monastery library, in Jerusalem (above) and talk in the courtyard; the Hill Museum has digitized the library's early Christian texts.

of jeans and a black mock turtleneck—his "Steve Jobs look."

Church bells rule the day: so much so that during the relatively freewheeling 2016-17 academic year that he spent as a Guggenheim fellow at Princeton working on his forthcoming book, Between Earth and Heaven: Interpreting the First Thousand Years of Christian Asceticism and Monasticism, he wasn't always sure how to spend his time. "It was actually hard for me, because there wasn't a dang bell saying, 'You do it now, then you're done,'" he says. "I really need more external framework."

That said, Stewart chose Saint John's Abbey for its "progressive, more open approach," akin to the post-Vatican II Catholicism he'd grown up with in Houston. His mother had been nurtured by "classy, amazing nuns" in Louisiana (her mentor once provided bus fare to the public library so she could read works by Rousseau that

were banned by the church), and Stewart realized that "if you are supportive of education and learning, it tends to expand your horizons."

At Harvard, he planned on a law career until an expository-writing teacher encouraged his penchant for books and language. Switching to history and literature, he focused on nineteenth-century French prose and poetry and English church history. A course with the late Peter Gomes, Plummer professor of Christian morals and Pusey minister in the Memorial Church, helped inspire his lifelong interest in early Christian texts. At St. Paul's, in Harvard Square, and in his home diocese, Stewart talked with priests about the possibility of ordination, but already knew solitary life in a rectory wasn't the right path. In writing his senior thesis on early Anglican monasticism, he spent time with the brothers at the Society of Saint John the Evangelist, an Episcopal monastic community on Memorial Drive—making his mother "nervous because she thought I was going to convert."

The fall after graduation, having spent the summer taking a Harvard Latin course, where he met his "first Benedictine," Stewart began a doctoral degree in religious studies at Yale. There, he became friends with a second Benedictine, on leave from Saint John's Abbey to study medieval history. Intrigued by the place, Stewart stayed there the following summer, learned some German, and joined the luminaries and theologians then on campus to celebrate the sesquimillenial of Saint Benedict's birth.

"I loved the community," he says. "I liked all these really smart guys, hanging out together and doing serious things, but also having fun, and their being willing to accept me. I think for men the sort of team/ group thing is important...there was something about being embraced by the group that was very meaningful at that point in my human development." The rich academic setting enabled Stewart to pursue scholarship and teach, and not worry about being re-assigned elsewhere. Benedictines' vows are to their monasteries, not to the order, and each community, relative to parishes, operates with autonomy, setting its own liturgical and other practices in line with the Rule.

Stewart returned to finish a third semester at Yale, earning a "consolation-prize master's degree," and moved to the abbey in early 1981. By July, he'd entered the novitiate (he was ordained in 1990), received his robe, and taken the name Columba. Latin for "dove"—evoking peace and the Holy Spirit, he says—it honors his ancestry: Saint Columba, the evangelist from Northern Scotland, not only left "the first recorded sighting of the Loch Ness Monster," he's also known as a man who loved books.

SAINT JOHN'S UNIVERSITY was originally founded as a college by Benedictines from a Pennsylvania abbey who went west to minister to German Catholic immigrants in central Minnesota; it moved to the current 2,500-acre campus in 1866. Walking trails wind through woods and along the lake, where motorized boats are prohibited. A restorative quietude pervades most of the campus, despite the presence of a preparatory school and about 1,700 male undergraduates. (About 1,900 women cross-register for classes, but reside at the sister school, Saint Benedict's College, down the road, where Benedictine nuns also live and teach.)

The abbey is not cloistered. But it is a private place, with a walled garden and polite signs posted to keep visitors at bay. The 115 brothers have their own key to the universi-

ty's gym and pool, and enjoy their own dock on the lake, "where we can hang out and not be bugged," Stewart quips—though he also means it. "Introversion—it sort of goes with the territory, no question," he continues. "I like people, but I really like being by myself. After three hours of lecturing, I am just whacked." (He teaches Christian asceticism at Saint John's small Graduate School of Theology.)

Neverthless, he has mustered the extroverted drive required to expand the manuscript library's holdings exponentially, raise funds, and network with donors, scholars, librarians, and project partners around the world (including the British Library and the Centre for the Study of Manuscript Cultures, in Hamburg) while extending the boundaries of HMML's founding mission.

Established in 1965, HMML first microfilmed materials held by Benedictine monastic libraries in Europe, starting in Austria and Germany, because of fears that another world war, or a nuclear attack, would wipe them out. In the Rare Book Room, Stewart has also found tomes that the earliest Saint John's monks brought from European monasteries to the Midwestern frontier: "the Gospels printed in Arabic in 1500...Arabic! Here, more than a century ago. They were investing in a future they could not know, and now at HMML we have digital images of thousands of Christian manuscripts from the war-torn Middle East."

In early 2003, the library director, then a lay academic, called on Stewart, who'd once taken a sabbatical to live and study in East Jerusalem and travel around the Middle East, to help with a new project in Lebanon. "They needed a monk to deal with the church people," he says: the robes tend to engender trust, or at least scholarly objectivity, he adds, when negotiations about the fate of sensitive materials become politicized and contentious. Since then, in numerous trips to the Old City of Jerusalem, Stewart has worked with Christians and Muslims to digitize documents that belong to family collections and historic communities, including St. Mark's Syriac Orthodox Monastery.

In Iraq, HMML has worked since 2009 with an organization founded by a Dominican friar to protect library collections. Stewart traveled through parts of Iraq in May with a 60 Minutes camera crew, filming a segment on HMML's work that is scheduled to air this winter, only to find that many of those materials are now hidden, or have been burned. "We visited all the places where we'd worked that have been destroyed," he reports. "It was very intense."

In Montenegro and Croatia, a new project recently began to digitize Church Slavonic literary, artistic, and religious documents, dating to the thirteenth century, that are integral to Serbian cultural history. This winter, Stew-

art also plans to be in northern India, to work on 2,500 mostly Arabic and Persian manuscripts, some 500 years old, held by the family of the Raja of Mahmudabad, who ruled one of the largest feudal estates in pre-independence India. "While there, we'll possibly zip up to Kathmandu," he says, to learn more about the effort to conserve roughly 180,000 ancient manuscripts in libraries damaged by Nepal's 2015 earthquake. The texts date from the ninth century to the modern era, and cover topics from Hinduism and Buddhism to yoga, poetics, and law.

ANCIENT documents like these and the thousands of volumes in HMML's Rare Book Room—a first printed edition of the 1481 Latin Bible with the Glossa Ordinaria that was in-

Western Christian theology for generations; leaves of a Coverdale Bible (1535), the first modern English translation of the complete text-excite Stewart. "They can feel as fresh today as when they were printed," he told an audience on campus last fall for the opening of a permanent library gallery for the Saint John's Bible. The seven-volume illuminated manuscript envisioned by British calligrapher Donald Jackson and created by artists under his leadership between 1998 and 2011. "I like the mechanics of printing, the cutting and casting of type, the setting up of the page, the pull of the press—I am the son of an engineer," Stewart continued. "I learned that Gutenberg had been a jeweler, which is how he knew how to carve a perfect letter, make a mold from it, and generate the hundreds, even thousands of 'e's or 'm's needed to print a book."

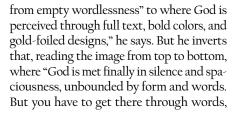


A print of Thomas Ingmire's Ten Commandments (part of the Saint strumental in shaping John's Bible) hangs in Father Columba's monastery room.

He owns one print from The Saint John's Bible, Ten Commandments, by California artist Thomas Ingmire, which hangs in his monastery room. In it, the burning bush, the crossing of the Red Sea, the first Passover, and the 12 pillars at Mount Sinai are depicted amid gold letters. In the lower half, black and white letters spell out the Ten Commandments and disperse incrementally, becoming abstract forms, before disappearing into white space at the bottom.

The work, Stewart says, is officially interpreted from bottom to top, as "a progression







In Jerusalem, technician Shaima Budeiry and librarian Dua' Qirresh worked to photograph, digitize, and catalog documents, including Sufi, Islamic, and scientific manuscripts.

through The Word, both sacred text and Word Incarnate."

Space, inner and outer, "is a good metaphor for how I live, and for my prayer experience," he explains later. Each morning he prays in his room, alone. "It's usually accompanied by a sort of, I won't call it tears, but a sort of moistening of the eyes. It's a sense of touching an emotional depth, which the

classic writers identify as a pretty important aspect of getting the prayer out of the head and into the heart." In that "zone," he simultaneously senses calm containment and boundless expansion.

When traveling, Stewart strives to preserve some semblance of monastic life. He stays in the same hotels, recites prescribed daily prayers stored on his iPad, reads from a daily devotional published by the abbey's Li-

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# The world is awfully loud...."I'm not a delicate person who is freaked by people, but I also need that space. I think everyone does."

turgical Press. "We have a joke," he adds, smiling: "A group of monks and nuns are traveling somewhere in a plane and the plane crashes on a desert island. What do they do? They get together, and the first thing one says is, 'OK, what time are we going to have vespers?"

Another antidote: "I never turn on the TV. Not once," he says. The world is awfully loud. "People are bombarded by it. Airport TV stuff? Drives me insane. 'Quit talking at me!" He winces with irritation. "And those things in the taxis?"—mini-screens cycling "edutainment" content—"I just turn those off." Or he puts on his noise-canceling headphones. "I'm not a delicate person, or someone who is freaked by people, but I also do need that space. I think everyone does."

HIDING in that small hotel room in Timbuktu, Stewart tried to focus on more solvable problems, like how to salvage the digitizing project. Still, the situation was scary. The worst moment, he says, came when the shooting sounded so close it seemed an attacker could easily enter the hotel and discover the three foreigners; at dinner the night before, they'd been told of regional kidnappings, and of one Swedish prisoner recently traded for a multimillion-dollar ransom.

The violence left seven people dead. Such outbreaks, the prevailing civil strife across the planet, and the erosion of "civilized disagreement and negotiating," notably in the United States, are "really troubling," Stewart says. "And the over-consumption, the consumerist culture? How long is all of this sustainable? I can imagine civilizations collapsing. I mean, I am an historian, it happens periodically, and it can happen with a natural catastrophe—will it be global warming? A disease? The decline of an economic engine?"

And yet, he points out, "Monasteries get

wiped out, barbarians come and go, and this year's barbarians are next year's educated, courtly princes. Where did Charlemagne come from, after all? They used to be hairy Goths; then they became rulers of the Holy Roman Empire. So, I think Benedictines have a survival gene and a capacity for reinvention. We're known as people who have a long-term view."

"The key to our survival as a species," he adds, "may well be small, sustainable communities. Monks and nuns excel at creating such micro-environments. Some have spoken recently of a 'Benedict option' as a way to save Christian values by retreating from society. A clarion call of the Second Vatican Council was to recognize the modern world as it is, and then to work with it, [as] a leaven of reconciliation and kindness in the midst of rapid and dislocating change. That's my kind of Benedictine life: open to all seekers, meeting people where they are, inviting them into the sanity provided by a structured life centered on gathering together throughout the day to share the ancient wisdom of the Psalms and find a moment of quiet reflection. It certainly works for me."

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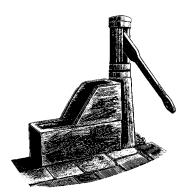
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# American Studies



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

O, THE SHIP of state isn't sinking. Louise Greep Hogan '57, Ed.M. '61, of Shelburne, Vermont, sent in this photo of herself taken by her sister, Nancy Greep

'66, of Santa Barbara, at that city's Maritime Museum. To make her meaning clear, Hogan noted, "Harvard has indeed been a lifeline for many."



GETTING 'EM while they're young (HBS division). Richard Palmer,

A.M. '88, writing about the thirtieth anniversary of "Black Monday," recalled in an email that he was then a second-year graduate student. He is now a managing director in Morgan Stanley's private wealth management operation, in San Francisco.

"My thesis advisor, Professor Dwight Perkins (economics), gave me some advice.... During the spring, when I outlined my thesis topic...he said he knew little about Chinese capital markets and finance as he was an agricultural economist, therefore: 'You should go over to the Business School in the fall and take a few finance courses....' Not knowing a thing about HBS, I said okay, and enrolled in a few business courses....The first...was called 'Capital Markets.' Not only did I learn how to use an HP 12 calculator, I learned that many business-school students were leveraged and highly sensitive to the stock market....As a poor graduate student surviving on loans and part-time jobs, I had no cash to invest in stocks, so the market was a foreign entity to me.

"It was Monday, October 19, 1987, in one of those big semicircular classrooms at HBS. Approximately halfway through the class, someone handed the professor a slip of paper. He stopped the case study and made an announcement: 'The stock market has

just crashed and the Dow is down 500 points. All of you who may have margin calls are excused from class.'

"I was sitting in the front row and was amazed that almost half the class walked out....[O]bviously there were some students with leveraged long positions, or were they all

rushing out to call their brokers to place buy orders?...

"That moment was formative in my education and helped me understand risk.... Maybe that's why I am in finance today."



From Albuquerque, Dr. David R. Margolin '70, A.M. '75, inquired after the dioramas of Cambridge once displayed on the first floor of Widener Library, where he worked in the late '60s.

The resourceful Andrew R. Laplume, associate director of FAS library facilities, ad-

vises that the 1936 diorama was restored and is on display at Harvard Management Company's office, in Boston. The 1677 and 1775 editions are in storage—the former intact, the latter dismantled, and both in need of restoration and conservation: a project for someone skilled in building miniatures, or in possession of some idle cash?



From the memorial minute on the life of the late, great Thomas professor of English and American literature, founding president of the Library of America, who died in April 2016 at the age of 103, presented to the Faculty of Arts and Sciences on October 3:

"Serene, puckish, generous, and welcoming, Daniel Aaron...known as Dan to one and all, presided over, in the 33 years after his retirement, the longest running

open-door seminar and Socratic conversation in his English Department office. Newer friends one-third his age and long-term colleagues and companions from more than a dozen countries were met with intellectual curios-

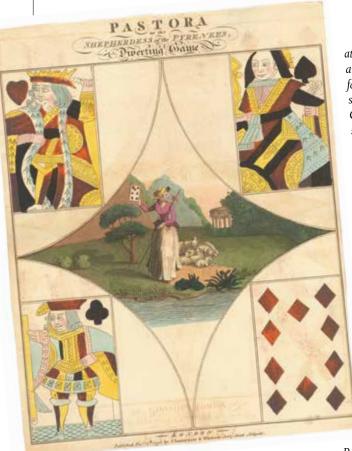


ity, warm good-natured interest, and a lively sense of play and relish. For the 40 previous years of his professional life, Dan was a central figure and defining international presence in the post-war world of American studies as he and the discipline he championed explained to a newly attentive world the richness, diversity, and deep historical problems of American experience as seen in its culture, public life, and thought."

In light of current events, that last line suggests that Aaron's flame was extinguished a few years too soon. ~PRIMUS VI

# Games of Old

Amusements to dispel the winter blues



at midnight during the winter solstice, arranged as a game of astronomy, for the use of young students in that science, was created by Alicia Catherine Mant (1788-1869), a writer of morality tales and children's stories. The large linen-backed paper board displays a galaxy of stars intended to spur the players to learn about the constellations as they move counters with a spin of the numbered teetotum. The young astronomers' journey, explains the accompanying booklet, begins with Dubhe, the first star in the Great Bear. After touring the skies,

touring the skies, the winner is the first to arrive at Alruccabah, the Pole Star. He then "receives the reward [unspecified] of his perseverance."

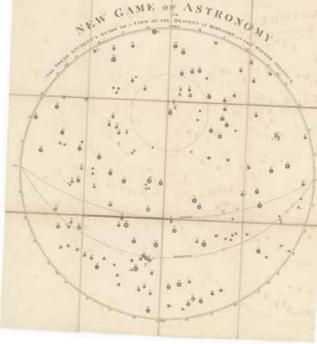
Pastora; or, the Shepherdess of the Pyrenees, a diverting game calculated to kill care, and enliven the dreary hours of winter, published in 1796 and played with counters and a pack of cards, offers an engraved, hand-colored playing-sheet depicting the shepherdess, holding aloft a seven of diamonds. At the corners appear the king of hearts, the knave of clubs, the queen of spades, and the ten of diamonds; on these figures, players use counters to place their bets. The object is to play all one's cards and collect the most counters.

The shepherdess winks at pas-

toral art and literature, evoking nature's idylls and amorous Arcadian pleasures. The rules booklet proffers a different lure. The game "will shew the variety and innocent amusement that may be derived from a pack of cards: were the admirers of them as solicitous to acquire the useful lessons with which they are fraught, as they are to appropriate them to the destruction of each other's fortunes, they would soon take precedence of every invention for the exercise of the mind."

Board games and curios found in the Z-closet remind us of how we lived, and raise a looking glass to how we live today. In our era of smartphones and streaming video, perhaps it's time to roll the die again and buy Park Avenue. Game night, anyone?

 $\sim$ DIANE E. BOOTON



ow BEST to spend leisure time during the winter months? The cold, dark days of yesteryear called for story-telling, reading aloud, and board games. In early nineteenth-century England, friends and family members played several such games now shelved in Houghton Library's narrow, high-ceilinged Z-closet, described by accessioning archivist Melanie Wisner as containing "things that didn't fit elsewhere, physically and/or intellectually"—from Henry David Thoreau's pencils to death masks.

An 1814 board game, The Study of the Heavens



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