SPRING 2017

MAGAZINE

MANHATTANVILLE REFLECTIONS ON A 21ST-CENTURY CAMPUS AN ESSAY BY ARCHITECT RENZO PIANO '14HON

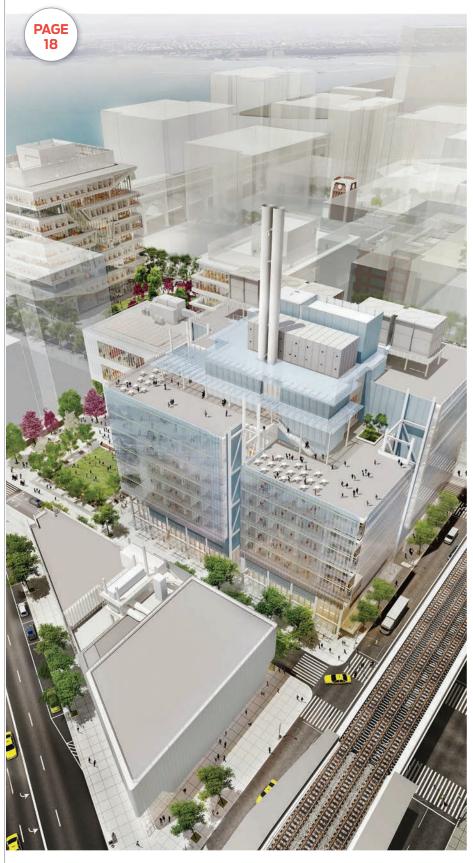
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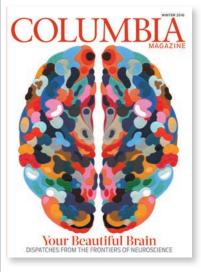
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COLUMBIA UNIVERSITY

IN THE CITY OF NEW YORK



MINDS BLOWN

The winter issue of *Columbia Magazine* was the most interesting ever! I especially liked "Your Beautiful Brain," but I enjoyed the entire magazine from cover to cover. Please keep up the good work, but it will be hard to beat or equal that issue, in my opinion.

Joseph C. Shami '58SEAS Lafayette, CA

"Your Beautiful Brain" was a remarkably well written and balanced article. When I checked online, I found that the writer, Bill Retherford, has received several awards for his work. Why not a book? Harold Lehrer '47CC Fort Lauderdale, FL

FIRST MANHATTANS

The painting of the so-called purchase of Manhattan that accompanied the College Walk article "The Manahata Project" (Winter 2016) is misleading. This is the Europeans' view of what happened, not the natives'. Land ownership was never conceivable to Native Americans. They did not believe that man could own land, never mind buy or sell it. How can two fleas on a dog argue about which one of them owns the dog?

> A. Otto Thav '83GS San Francisco, CA

Columbia is a curious place for a plaque honoring the original inhabitants of Manhattan. The Morningside Heights campus was not the site of any of their known settlements, nor did they farm it. At best, an Indian trail was nearby, but there were many Indian trails.

Robert S. Grumet, the author of *First Manhattans*: A History of the Indians of *Greater New York*, calls these native people "Munsees," after the dialect they spoke; he notes that "Lenape" (a Delaware word for "man") rarely appeared in the seventeenthand eighteenth-century historical record. (I myself have never encountered the term in contemporary documents.) In the eighteenth century, the colonists referred to the surviving Munsees by the term "River Indians." Today, most of the remaining

members of this group call themselves "Delawares."

The plaque is so vague that it suggests a continuous oppression of the Munsees. That is just not the case. Even after the purchase of the island, some Indians remained on Manhattan. Commonly, Indians who sold land retained some rights usually involving hunting. But since the details of the sale are lost, no one can be sure.

What is certainly true is that in the eighteenth century, Indians in New York did win some land disputes with the colonists. While Indian relations with the English were much better than they had been with the Dutch (the Dutch wars were indeed brutal), there still were some very serious incidents.

Finally, since this plaque's purpose was to commemorate the Munsees, it would seem proper to have had at least one Delaware present. The essay does not mention any Delawares at the ceremony. They are not an extinct people.

> Philip Ranlet '83GSAS Middle Village, NY

SECOND CHANCES

LETTERS

I withdraw some of my reservations about the redesigned *Columbia Magazine*, expressed in a letter in the last issue. "Your Beautiful Brain" was excellent, thorough, and detailed.

> Peter Gibbon '80TC Duxbury, MA

LETTERS

I truly enjoyed the article by Paul Hond on the placing of a plaque in Van Am Quad honoring the Lenni Lenape people as the first inhabitants of Manhattan Island. It was also good that the representatives of so many of our native peoples attended.

That said, I am sorely disappointed that no one saw fit to invite a representative of today's Lenni Lenape people, especially since they live no more than fifty miles from campus in Ringwood and Mahwah, New Jersey, and Hillburn, New York. During my career as a public-school teacher in New York, I had the pleasure of teaching many of them.

Barry H. Bley '64CC, '65TC Arvada, CO

Julian Brave NoiseCat '15CC responds: We invited Lenape representatives to the unveiling, but to my knowledge, none were able to make it. Happily, though, a group of Lenape were visiting Manhattan from Ontario a couple of weeks after the installation, and a few students and I had the pleasure of accompanying them as they saw the plaque.

BADGE OF HONOR

Your interview "Policing the Police" (The Big Idea, Winter 2016) continues your ideological approach to the matter of improving relations between our police and all communities, not just the so-called minority groups.

In my eight decades of life, I have met thousands of police in different areas of the United States. In New York I went with policeofficer friends into dangerous areas of the city at night to observe the "action." After I left New York, I continued to take an interest in law enforcement. I attest that of the numerous officers of all ranks I knew over these many years, only a tiny number seemed incapable of carrying out their duties in an acceptable manner.

I believe that present problems faced by the police are created by professional left-wing agitators sent into communities. This was done recently in Ferguson, Missouri, and in Baltimore, as it has been done in other times and places.

Much has been done over the years to encourage police officers to earn higher degrees. Nationally, we probably have one of the most highly educated police forces in the world. That, of course, is not enough. Sensitivity toward differing cultures is necessary, and throughout the United States, police departments have worked hard for decades to inculcate this sensitivity. However, if professional agitators seeking

to ignite rebellion and insurrections are not exposed for

QUESTIONS? COMMENTS? WE WELCOME THEM ALL!

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Letters may be edited for brevity or clarity.

what they are, the best efforts and the highest good will of our police will be nullified.

I am confident that we will see decreasing credence in many urban communities in the appeals by agitators, and concomitantly a greater appreciation for the real sincerity and dedication of the overwhelming preponderance of our police.

Michael Suozzi '72GSAS San Diego, CA

VIBRANT HARLEM

Your article "Bittersweet: Two scholars of Harlem take in the view from Sugar Hill" (College Walk, Winter 2016) is bitter and not sweet. To present a view of Harlem from the 1930s to the 1950s and conclude by quoting the author David Levering Lewis's projection that in the near future "Black Harlem [will] be all but vanished" is irresponsible.

I may not be a Black scholar, but I live in Harlem. Have you ever met Franco the Great, who painted and still paints the steel security gates that store owners installed after the 1960 riots? Have you ever been to the jazz bar Paris Blues? Do you know Alvin "Lee-Lee" Smalls. whose bakery is the home of "Rugelach by a Brother"? Have you been to the 115th Street branch library, which is filled daily with community members borrowing books, attending programs, using computers? Have you attended the many events supported by the Greater Harlem Chamber of Commerce? Have you toured the Apollo? Walked the streets? Stopped to talk? Harlem

is full of regular Harlem people, and Harlem people are proud.

I asked a wise man in the neighborhood what will keep Harlem Harlem. He replied, "the projects." I would add the maintaining of city-supported housing generally.

Harlem is a vibrant neighborhood, and I live here. Perhaps you will consider another article on keeping Harlem Harlem. **Karin Seastone Stern '81PH** New York, NY

BROAD APPEAL

I just wanted to pass along my appreciation for the consistently high quality of Columbia Magazine. Each time after reading it, I feel smarter, more informed, and deeply inspired. The range of topics is always impressive, and the Winter 2016 issue in particular touched upon so many areas of my life. For example, I helped build an affordable-housing development in Manhattan designed by David Adjaye, the same architect who was responsible for the National Museum of African American History and Culture ("A Virtual Tour with Mabel O. Wilson '91GSAPP," Network). I also run a small nonprofit that does work in Kenya, so I got in touch with Be Girl and spoke with a Columbia graduate about how we might collaborate ("Products with a Purpose," Network). And I'm working on making a feature film, so I enjoyed your interview with Graham Moore ("The Shock of the New," Booktalk).

As helpful as it is when articles tap into things

KEY TO ABBREVIATIONS			
CODE	SCHOOL	CODE	SCHOOL
BC BUS CC DM GS GSAPP GSAS HON JRN JTS KC LAW	Barnard College Graduate School of Business Columbia College College of Dental Medicine School of General Studies Graduate School of Architecture, Planning, and Preservation Graduate School of Arts and Sciences (Honorary degree) Graduate School of Journalism Jewish Theological Seminary King's College School of Law	NRS OPT PH PHRM PS SEAS SIPA SOA SPS SW TC UTS	School of Nursing School of Optometry Mailman School of Public Health School of Pharmaceutical Sciences College of Physicians and Surgeons Fu Foundation School of Engineering and Applied Science School of International and Public Affairs School of the Arts School of Professional Studies School of Social Work Teachers College Union Theological Seminary

I'm currently doing, it's ultimately irrelevant, because I simply enjoy the fascinating reading on the very broad spectrum of topics that you and your staff choose to share, from science to the arts to the environment and beyond. Thank you for your work, and thank you for making it exciting to get the mail four times a year.

Dan Iacovella '89GSAPP Fairfield, CT

I continue to be amazed and pleased at the quality of your magazine. Gone are the boring articles about exploits of various graduates and their histories. This magazine is worthy of the best that journalism offers. I actually recommend it to friends to read because the articles are so worthwhile. It may even end up as reading material in my doctor's waiting room, and I am hoping that the doctor himself is reading it. Congratulations! This the best that journalism offers. The format and illustrations are great, too.

> Alva Guerin '48LS Elizaville, NY

FDR'S DR.

Regarding the interesting review of Joseph Lelyveld's book *His Final Battle: The Last Months of Franklin Roosevelt* in the winter edition, your readers may like to know that the cardiologist who eventually diagnosed Roosevelt's congestive heart failure was Howard Bruenn '25CC. Bruenn was my attending physician in the medical clinic at Columbia's College of Physicians and Surgeons, as well as being on the faculty there. **Stanley Fine '54CC, '57PS** Roslyn, NY

BLACK AND WHITE

Congratulations on the redesigned *Columbia Magazine*. Your Summer 2016 and Fall 2016 issues are the best I have read in my three decades since graduation.

I do, however, need to take issue with you on a style point. Your article "The Klan's Last Stand" (Booktalk, Fall 2016) capitalizes "Black" while failing to capitalize "white" — in one case, even within the same sentence.

Surely, evenhandedness toward the races demands either that both of these terms be capitalized or that neither of them be.

William Wilfong '85CC Lutherville, MD

We capitalize "Black" because, for many people, this choice signifies a recognition of their distinct cultural identity. Magazines like Ebony and journals of African-American studies often capitalize "Black." We lowercase "white" because white people across the world do not generally see themselves as a unified cultural group, with the exception of white supremacists, who do sometimes capitalize "white." The discrepancy may take a moment to get used to, but we think it's the right thing to do. — Ed.

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COLLEGE WALK

NOTES FROM 116TH STREET AND BEYOND



OLD KING COAL Digging for answers about the future of fossil fuels

ou might say that President Donald Trump ran his campaign on coal (among other combustibles), promising to revive an industry in precipitous decline. "America is sitting on a treasure trove of untapped energy," Trump has said, declaring that there are "hundreds of years of coal energy reserves."

Sally Jewell suggests a different course.

On January 11, a week before Trump's inauguration, and with just days left in her tenure, Jewell, the US secretary of the interior, appeared at the Columbia Club at Fifth Avenue and East 43rd to share some hard coal facts with an audience of seventy people. Seated next to her was Jason Bordoff, director of Columbia's Center on Global Energy Policy, which sponsored the event as part of its Energy Leaders Forum.

That morning, the Department of the Interior, the federal agency that manages public lands and natural resources, had released a comprehensive 190-page report on the federal coal-leasing program. Forty-two percent of the electricity-generating coal in the US is mined on federal land, and that coal, Jewell noted, accounts for 10 percent of the country's greenhouse-gas emissions.

Jewell, a former oil-and-gas engineer, banker, and CEO of the outdoor-gear company REI who became interior secretary in 2013, had ordered the coal report last winter after touring coal country and speaking with energy and climate experts. There hadn't been an assessment since the 1980s, and Jewell found that the coal program was plagued by inefficiencies: no-bid contracts, undervalued leases, a lack of transparency, and poor returns for taxpayers. In January 2016 she announced that her department was "hitting pause" on new coal-mining leases beyond the coal reserves already under contract (an estimated twenty years' worth at current production levels).

Trump has vowed to lift this leasing moratorium — what he decried as the Obama administration's "war on coal" — but Jewell thought that decision makers should at least have the benefit of the review's recommendations.

She also hoped that the next interior secretary, Congressman Ryan Zinke of Montana, would read the report, which Jewell said "will be incredibly useful not just to my successor and people working in Interior, but also to outside communities and states, which get 50 percent of the revenue of the federal coal program."

Bordoff then asked the big question: "How do you balance the need to produce resources that the economy depends on with the urgency of addressing climate change?"

Naturally, it was complicated. Coal-burning power plants are one of the country's chief sources of carbon-dioxide emissions, and Jewell said she was in "the forever business," safeguarding America's land and water for posterity. But she was also in the consensus business. Throughout her talk she emphasized the importance of listening to all sides when making decisions, and after answering Bordoff's question with some boilerplate ("We need to take the impact of our fossil-fuel production into account as it relates to the environment"), Jewell drilled down to the bone.

"We all burn fossil fuels," she said. "We need to be practical about that. Part of the objective that I've had, and part of the demands of my job, is you take a long view. This isn't short-run. It's not ideological. You get in this chair and soon any ideology you had gets a bucket of ice water dumped on it by the very real situation you face on the ground: that we are dependent on fossil fuels and will be for the foreseeable future."

The coal-program review offered some guidance for that future. It proposed directing a portion of federal coal revenues to assistance for communities affected by reduced coal production, and anticipated a transition in coal country to jobs in renewable energies: putting people to work manufacturing, installing, maintaining, and repairing wind turbines and solar panels.

It was all in the report, should anyone care to look.

"I hope," said Jewell, "that local communities hold this next administration accountable for following through — not on bringing back an industry that is never going to be economic, but on being honest about what we need to do to put these really committed, hard-working people into work that will last."

- Paul Hond

THE SHORT LIST

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WISIT The 2017 Whitney Biennial will feature work by ten Columbia-affiliated artists, including SOA faculty members Aliza



Nisenbaum, a painter known for her portraits of undocumented immigrants, and Jon Kessler, a mixedmedia sculptor. From March 17 to June 11. whitney.org/exhibitions /2017biennial

La Talaverita, Sundav

Morning

(2016), by Aliza

NY Times

Nisenbaum.

DOWNLOAD

You probably use your phone to check the weather, but now you can use it to monitor rising sea levels. **Polar Explorer: Sea Level**, a mobile app developed by scientists at the Lamont-Doherty Earth Observatory, offers climate-change data and reports. Available for iPhone and iPad in the iOS store.

WATCH The 2017 Columbia University Film Festival will showcase work by student filmmakers. Catch screenings at the new Lenfest Center for the Arts, equipped with a 150-seat movie theater. From May 10 to May 16. arts.columbia.edu /events/spring-2017/columbia_film_festival

APPLAUD

The **Columbia Ballet Collaborative** will celebrate its tenth anniversary with alumni performances. April 15 at Miller Theatre. *columbiaballetcollaborative.com/performances*

COLLEGE WALK LONG SHOT How basketball's three-pointer was launched from Morningside Heights

t has become a matter of poetry: Golden State Warriors guard Stephen Curry dribbles down court, stops casually outside the three-point line, rises from the floor, raises the basketball near his head, flicks his wrist. and sends the ball arcing twenty-two feet or more over the court, where it whispers through the net: swish. Curry, a two-time NBA Most Valuable Player, is the greatest practitioner of the three-point shot, and his coach, Steve Kerr, who played on championship teams with the Chicago Bulls and the San Antonio Spurs, holds the record for highest career three-point percentage. But each time fans marvel at Curry or others who excel at the three-pointer perhaps the most important play in basketball — they are unknowingly paying tribute to an innovator who used the Columbia gym as his laboratory.

Howard Hobson '45TC was best known as a pioneering college coach. He won 495 games as a coach, and in 1939 he guided the University of Oregon to the first-ever NCAA tournament championship. But his greatest contribution to basketball might have come on February 7, 1945, during a game between Fordham and Columbia. That night, in front of about a thousand people on the Columbia campus, the Lions and the Rams played the first college game with a threepoint line, an experimental rule dreamed up by Hobson.

Forty-one years old at the time and on sabbatical from Oregon to get his doctorate in education, Hobson had spent thirteen years analyzing 460 basketball games. He was to collect these observations in his Columbia thesis, which he turned into the 1949 book Scientific Basketball. Today, few people remember Hobson's basketball bible, but the ideas he put into practice in the Columbia game of 1945, laid out in chapter 10 of his book,

are accepted wisdom. The three-point shot in particular changed the game forever. Like the home run in baseball, Hobson wrote, "the long field goal is the most spectacular play in basketball."

The three-pointer, as opposed to the standard twopoint shot, had the promise not only of being exciting to spectators, but of diminishing the advantage of taller players who could easily drop the ball in the bucket from close range. Previewing the history-making matchup in 1945, the *New York Times* wrote, "In an effort to make basketball a more interesting and wide-open game, the Columbia-Fordham contest tonight at the Morningside Heights gym will be played under new rules."

Once the game began, the players loved the new long-distance shot, even if it sometimes confused them. Officials called several players for traveling violations when they forgot to dribble



and simply ran out to the three-point line while carrying the ball.

Columbia won 73–58, hitting eleven three-pointers while Fordham made nine. Columbia's John Profant knocked in four of the long shots, and teammate Norm Skinner '50CC hit three of them while scoring twenty-six points. Some fans completed surveys about the alterations. The final tally came in with 148 in favor of the three-pointer, 105 against.

The new rule certainly boosted Columbia's offense. Those seventy-three points set a school record for the Lions. In no other game that season did Columbia even reach sixty points. In the *New York Herald-Tribune*, Irving T. Marsh wrote, "To this observer the new rules long basket would minimize the value of team play. The experiment, therefore, was far from a howling success." Effrat ended his story by predicting the three-pointer "will be permitted to die a natural death."

And for many years, Howard Hobson's favorite shot did seem destined to perish. But then the shortlived American Basketball League used the three-pointer for the 1961-1962 season. and the longer-lived American Basketball Association instituted the shot in 1967. The NBA didn't use it until 1979, and the NCAA made it a nationwide rule in 1986. Today, the three-pointer, which allows teams to build larger leads or overcome greater deficits in less time, is a pervasive weapon in basketball, as more teams

Today, the three-pointer is a pervasive weapon in basketball, as more teams take more shots from "downtown."

definitely provided a game with more action and much more excitement, but if it really gets wild and woolly there is no telling what may happen."

Other reporters took a harsher view. The *Spectator* complained about confusion, and an Associated Press writer asked, "What's wrong with the old game?" *New York Times* scribe Louis Effrat noted, "The experts' impression was that subordinating the lay-up shot by awarding an extra point for a take more shots from "down-town," as the announcer says.

Hobson, who died in 1991 at the age of eighty-seven, advocated the three-pointer throughout his life, believing the play he unleashed in 1945 was the shot of the future. He did it modestly, though. In *Scientific Basketball*, Hobson wrote that coaches should try the three-point shot and "see if the results seem to be helpful to the game." Coach Kerr of the Warriors would probably say yes.

- Shawn Fury

HISTORY'S BURDEN Taking a close look at Columbia's links to slavery

enry Izard, Columbia College Class of 1789, thought it useful to have his name inscribed on his property. That way, should Charlotte ever run away (which she did), he could mention in his newspaper advertisement that "Izard" was branded upon her left cheek.

Izard's ad was one of forty-four runaway-slave ads submitted by twenty-eight King's College and Columbia students from the classes of 1760 to 1805 in New York papers, according to Jordan Brewington, a Columbia College senior. Brewington is one of sixteen students who have contributed original scholarship to Columbia University and Slavery (columbiaandslavery.columbia.edu), a website dedicated to examining Columbia's connections to slavery and abolitionism.

The website grew out of a course taught by history professor Eric Foner '63CC, '69GSAS in 2015, which was itself inspired by the 2013 book *Ebony and Ivy: Race, Slavery, and the Troubled History of America's Universities*, by Craig Steven Wilder '94GSAS. That book spurred historical introspection at a host of elite educational institutions.

Foner, an eminent historian of the Civil War and Reconstruction who retired from Columbia last year (the course on Columbia and slavery has since been taught by Thai Jones '02JRN, '12GSAS and Karl Jacoby), recently spoke in Low Rotunda alongside Brewington and Jared Odessky '15CC to mark the website's unveiling. Slavery, Foner said, was "intertwined with the life of this institution and of course of New York City," which in the Colonial period had more slaves per capita than any city besides Charleston, South Carolina.

Many of Columbia's early students came from slave-owning Northern families, the researchers found, and most of Columbia's early presidents owned slaves. In addition, the Trustees and donors at that time included merchants who built their wealth on products made from slave labor, or else profited directly from the slave trade itself.

Brewington's research focused on slaves. As a descendant of slaves, she wanted to "talk about this history through enslaved Black lives." But she could find no primary sources — no narratives of slaves or free persons. The slaves were invisible. "It got to me," she said.

There was one type of documentation that hinted of their lives, however: runaway-slave ads in newspapers. These ads typically had a physical description of the

COLLEGE WALK

escaped slave and a monetary reward, and were "the only type of literature that was widely published in public that was singularly about Black life," Brewington said. One thing she deduced from this evidence was a "real undercurrent of Black resistance."

She also disputed the notion that because slavery was common (the original Columbia campus downtown was proximate to many enslaved people working and building the city), slave owners were not really conscious of the atrocities they were committing. "Students were actively engaged and knowledgeable about what they were doing," Brewington concluded. "They chose to ignore the humanity of their slaves for their own profit."

The ads held clues. Brewington found that some were submitted multiple times over several years, indicating that a slave was repeatedly escaping from the same person, which, she argued, "speaks to the consciousness of the slave owners — knowing these people are running away, seeking self-determination, and continually trying to recapture them." Half the ads described scars, brandings, missing toes — brutal tokens of "the day-today abuse that these students [the slave owners] were aware of."

On a more positive note, some Columbians embraced anti-slavery causes. As Foner pointed out, Founding Fathers Alexander Hamilton and John Jay were members of the New York Manumission Society, and Gouverneur Morris 1768KC, a coauthor of the US Constitution, condemned slavery at the Constitutional Convention.

But Columbia's most important anti-slavery activist, as researcher Odessky emphasized, was John Jay's grandson, John Jay II 1836CC, who inveighed against slavery as a lawyer and churchman. Odessky called Jay II a "lone wolf" at Columbia, where most students held "extremely conservative attitudes." In college, Jay II became a manager of the New-York Young Men's Anti-Slavery Society, which zealously condemned slavery as "the highest crime that can be committed on moral being." Later, he represented fugitive slaves in court and pushed the Episcopal Church toward anti-racist and abolitionist positions.

As President Lee C. Bollinger observed in his introductory remarks in Low, contemporary life has been "deeply determined" by the history of slavery. "This past is not past; it is very much in the present," he said.

Brewington took up that theme: it wasn't just "evil individuals" behind slavery, she said. It was a whole society. "Once you see that," she said, "you start to understand how that world ended up birthing the world of 2017.

"Then you end up asking yourself the question: 'Who would I have been in that world? Who am I in this world? And is there a difference?'"

– Paul Hond

BETTER READ THAN DEAD

MFA grads meet up for an exchange of words



he KGB Bar on East 4th Street in the East Village is a small, dark, Soviet-era-themed establishment with candlelit tables, red walls, and pictures of Lenin and Odessa writer Isaac Babel. It is situated at the top of a narrow flight of stairs (the first and third floors are noisy theaters) in an 1834 walkup. Opened in 1993, the bar, born in the last gasp of ashtrays, maintains a gritty, ruby-curtained elegance.

On the first Thursday of each month from September to May, KGB hosts readings by Columbia MFA alumni. "It's really about highlighting people," Bryan VanDyke '05SOA, who runs the readings with Emily Austin '10SOA, told a full house on a winter's night. "We ask recent graduates to make submissions. We take a look and select the best for you to listen to." One big rule: you can't already have a book deal.

VanDyke has been curating the readings for ten years and believes in mixing genres. This evening featured poems from Rachel Morgenstern-Clarren '14SOA; an essay by Rebecca Worby '14SOA on tarot cards and climate change; and a story by Kerry Cullen '13SOA narrated by a thirteen-year-old girl, which starts: "I recently discovered punk rock."

The bar was so dark that the lamp on the lectern burned like a sun. There were no laptops out, no phones on the wooden tables, no TVs except for the dusty, boxy relic at the end of the bar, unplugged and harmless. The crowd was young, sharp, alert to the flickering social currents in the room. Friends, old classmates, writers check-

Angle of Repose

"Sculpture is an art of the open air. Daylight, sunlight is necessary to it," Henry Moore '74HON, the great British sculptor, once said. Now Moore's bronze Reclining *Figure*, a gift from David and Laura Finn, has been installed *en plein air* outside Havemeyer Hall. The Moore sculpture was originally bound for South Lawn, but after students brought a petition claiming that the abstract artwork would mar the harmony of the neoclassical campus, the University Senate recommended the sculpture be placed in front of Havemeyer. That sits well with the Finns, who were close friends with the late artist. "He would have been proud to see it here," David Finn said.



ing out other writers like musicians at a jam session. Scoping. Listening.

Morgenstern-Clarren read first. Her poems vibrated with impressions: rain fell "hard as dried beans into a metal pot"; her father sat at the edge of her sick brother's bed, "trying to steady the caged elevator of his voice rattling between floors."

After a break, VanDyke introduced Worby by mentioning journals she'd appeared in — Pacific Standard, Salon, the Onion, Guernica. "These are great publications; I've been rejected many times by these publications," VanDyke said to laughs. Then Worby pulled out her phone — to read. VanDyke said, "I don't think we've ever had someone do digital. I love it." "I didn't have a chance to print," Worby explained. "Also, that's Orion, not the Onion." More laughter. "It would be really cool if I wrote for the Onion." Kerry Cullen finished the reading with her story "Honestly Olive." Olive has a crush on Francis, a punk boy from her biology class. "When we dissected frogs again last week, I saw him steal one of the hearts," Olive tells us. "He slipped it right into a tiny ziplock bag." Beware of the boy who steals hearts.

Afterward, VanDyke expressed his gratitude to the KGB staff and to the audience. "This whole writing thing kinda fucking sucks," he said in a tone of loosened confession. "Because, as Henry James said, you labor alone. You work in the dark. You do what you believe is best. It's not a practice for people who need affirmation. And so it's kind of amazing to show up and see the turnout that people get. It's kinda great, and I really appreciate it, and the readers appreciate it. It's kind of a big deal." — Paul Hond

























SPEAKING UP

New York City Council Speaker

Melissa Mark-Viverito '91CC made history by

becoming the first Latina elected to citywide office.

Now, in her final year as Speaker, history has taken a turn.

By Paul Hond \ Photographs by William Alatriste

n a cold, slushy morning in mid-December, Melissa Mark-Viverito '91CC, the Speaker of the New York City Council. entered a school auditorium on the Lower East Side. It was a Saturday, and Mark-Viverito was dressed casually in jeans and a red sweater. She headed past the rows of bolted-down wooden chairs to the front of the room, where people from city agencies and legal-aid groups sat at long tables stacked with pamphlets covering topics urgent to immigrants: what to do if a federal immigration agent knocks at your door, your legal rights, and where to turn for help.

This information fair, a hastily scheduled addition to a monthly program, was sponsored by the New York Immigration Coalition, a nonprofit that has seen its budget triple since Mark-Viverito became council Speaker in 2014. Mark-Viverito, whose district includes the South Bronx and East Harlem, was alarmed by Donald Trump's victory in the presidential election, and sought to address the fear and anxiety that she saw spreading among the city's estimated half million undocumented immigrants.

"We provide these services as a way to demonstrate our commitment to our immigrant communities here in New York City," she told the few dozen attendees, most of them lined up at the lawyers' tables. "We're here to defend our values as a city against what is coming: an administration that does not share our values."

Ever since Trump announced his candidacy with incendiary comments about undocumented Mexican immigrants, Mark-Viverito has been speaking up. She took immediately to the editorial pages — and to Twitter — to condemn Trump's statements and his intention to cut off federal funding to "sanctuary cities" — jurisdictions like New York that restrict their compliance with federal deportation efforts and extend services to undocumented residents.

In the election's aftermath, Mark-Viverito had no time for the dazed incapacitation that gripped many New Yorkers. "President-elect Trump's irresponsible rhetoric regarding immigrants is an affront to New Yorkers and does not reflect our values, including our commitment to inclusion, compassion, and the rule of law," she said in mid-November, as Trump's victory was still seeping into the mental topsoil of the heavily Democratic city. "To our undocumented community, we are with you, we will stand by you, and we will protect you. You are New Yorkers, and we will not abandon you."

As the second most powerful official in New York after Mayor Bill de Blasio '87SIPA, Mark-Viverito has been making herself heard — not with a bullhorn on the street, as in her activist days, but with a bully pulpit: the Speaker's lectern in City Hall.

"We are in a state of emergency, and I'm not joking," Mark-Viverito told *Columbia Magazine* shortly before Trump's inauguration. "As a city we have to defend what we've achieved. This mayor and I — what we've done in terms of initiatives, public policy, the budget — have demonstrated our values: we embrace diversity, we're an immigrant city, we welcome everyone who comes here to contribute positively. And those values are under attack. So we've got to be prepared. We've got to coalesce and push back, and there is no time to waste. We're going to fight."

THE ROAD TO THE SPEAKERSHIP

The New York City Council is the city's lawmaking body. It consists of fifty-one elected council members representing fifty-one districts, and is an equal governing partner with the mayor. The council monitors the functioning of city agencies, makes land-use decisions, establishes spending priorities, and has final approval of the city's budget.

The Speaker is elected by a majority vote of the council. The duties include appointing the leadership of the body's thirty-five oversight committees, setting the council agenda, chairing meetings, and gaining consensus on legislation. Twice a month, council members from the five boroughs convene in the red-carpeted, mahogany-paneled, high-ceilinged council chambers of City Hall in Lower Manhattan, where they pass laws that affect all New Yorkers.

Mark-Viverito, forty-seven, was first elected to the council in 2005, and swiftly built a voting record consistent with her activist bent. She fought against the closing of senior centers and churches. She fought for paid sick days and for the rights of tenants to sue landlords for harassment. She fought to protect community gardens and public parks from private interests. She fought "Uptown New York" — a development project for East Harlem, backed by Mayor Michael Bloomberg, which was drawn up without community input — and prevailed.

She was self-possessed, determined, and wasn't afraid to take on unpopular causes. In 2010, she asked the council to support the parole hearing of Oscar López Rivera, a member of the militant Puerto Rican group FALN, which carried out bombings in New York in the 1970s and '80s in the name of Puerto Rican independence. López Rivera had been convicted in 1981 of "seditious conspiracy" and was sentenced to fifty-five years in prison (he received another fifteen years in 1987 for conspiracy to escape). His supporters — including ten Nobel Peace Prize winners - considered him a political prisoner. Mark-Viverito, who was born and raised in Puerto Rico, had long been calling for López Rivera's

release. Her appeal to the council elicited an e-mail blast from Republican council member Dan Halloran of Queens, who wrote, "This terrorist, like all terrorists, should rot in jail forever."

Mark-Viverito wasn't deterred. In 2011 she led a rally near Bloomberg's house in protest of the more than fifty thousand pot arrests the previous year, nearly 90 percent of which involved Blacks and Latinos. And with the Obama administration ramping up deportations, she cosponsored a bill, one of the first in the nation, limiting the city's cooperation with US immigration officials. (This posture would be reinforced in late 2014 through a Mark-Viverito-backed bill that removed federal immigration officers from Rikers Island.) According to Mark-Viverito, Congress's "abject failure" to address immigration reform - to resolve a complicated, long-unattended issue in a fair, humane way - meant that cities had to step up and lead.

In 2013, the term-limited council Speaker, Christine Quinn, joined the mayoral race, and the speakership was up for grabs. Mark-Viverito was entering her own final term with a reputation as a hard-nosed progressive lawmaker, and emerged from the pack as one of two leading Speaker candidates. Her rival was Dan Garodnick, a Democratic councilman from the Upper East Side. With the council sharply divided, Mark-Viverito embarked on what she calls "a bruising campaign."

"The [*New York*] *Post* was brutal," she says. "There were constant attacks. I think there were elements of racism me being Latina and portrayed as 'other,' as a foreigner — and a resistance in the power structure to my progressive vision. I was portrayed as a threat to some extent. I had to withstand a lot as opposed to the other candidate, so it was hard. I knew the goal was to knock me down. But I have a tough shell, and I didn't allow that."

On January 8, 2014, with the chambers packed with spectators and media, Mark-Viverito stood before the council for the vote. By a unanimous decision of the fifty-one members, Mark-Viverito I KNEW THE GOAL WAS TO KNOCK ME DOWN. BUT I HAVE A

TOUGH SHELL, AND

I DIDN'T ALLOW THAT."

was elected Speaker. The room broke out in cheers.

In her post-election remarks, Mark-Viverito said, "I hope that as young Latinas and Latinos are witnessing this moment, they are able to dream that much bigger and are inspired to work that much harder, because we have broken through one more barrier."

SEEDS OF ACTION

When Mark-Viverito entered Columbia in the fall of 1987, the College had just graduated its first coed class. Beyond the gates, New York was beset with racial strife, AIDS, homelessness, crack, violence, financial chaos, and corruption. Bernhard Goetz had recently been acquitted on attempted-murder charges for the shooting of four African-American men on the subway after one of them asked him for money, and October 19 saw the Black Monday stock-market crash. And on October 22, at the Portsmouth Rotary Club in New Hampshire, an impassioned crowd of five hundred people, some holding TRUMP IN '88 signs, listened as Donald Trump, the forty-oneyear-old New York billionaire, said, "If the right man doesn't get into office, you're going to see a catastrophe in this country in the next four years like you're never going to believe. And then you'll be begging for the right man."

That first year, Mark-Viverito had no time for politics. Not that she wasn't interested: her father. Anthony Mark. was a politically engaged ophthalmologist in San Juan; and her mother, Elizabeth Viverito, was a feminist activist who had started one of Puerto Rico's first female-led law firms. Both parents had been born in New York City, in the district that their daughter would one day represent, and they had passed on to her a keen sense of social justice. But as an eighteen-year-old Latina from a high-school class of forty entering the Ivy League circa 1987, Mark-Viverito had more immediate concerns.

"It was a little overwhelming," she says. "Trying to figure Columbia out and navigate it and find my footing took some time." She encountered anti–Puerto Rican prejudice, too, something she wasn't familiar with. Some was general, mostly variations on "they're all on welfare and should get back on their boats and go home." Some was personal. It got so that she considered leaving after her first year. But in the end, she says, "I decided to stick with it and push through."

The experience led her to examine her identity and "figure out who I was." She eventually became active with Acción Boricua, a campus group promoting Puerto Rican culture and education, "part of that greater movement at that time to try to diversify the curriculum, and put pressure on the administration to look at bringing in more faculty of color." She also hosted "Caribe Latino," a Latin-jazz and talk-radio program on WKCR.

Through her campus activism, she got to meet some of the city's Puerto Rican leaders, like Richard "Richie" Perez, a founder of the National Congress for Puerto Rican Rights. She would go on to meet two other key influences: educator and feminist Antonia Pantoja '54SW and Lorraine Cortés-Vázquez, the future secretary of state of New York. "A lot of the seeds that were planted growing up with my family really flowered at Columbia," she says. "And that translated into becoming active in the city."

FROM PRIVATE TO PUBLIC

By the time Mark-Viverito graduated in 1991 with a degree in political science, New York had elected its first Black mayor, David Dinkins. Over the next decade, Mark-Viverito held leadership posts at Latino-centered nonprofits, volunteered at listener-supported WBAI as a producer and host, and continued on an activist path: agitating for more Latinos in government, organizing protests of US naval munitions testing on the Puerto Rican island of Vieques, and rallying for the release of Oscar López Rivera. Her last job pre-City Council was as strategic organizer for Local 1199 of the Service Employees International Union, the largest health-care union in the US.

All of this would serve her as she entered public life. Twelve years after her



first council win in 2005, she has become a leading voice not only for New York's 720,000 Puerto Ricans and 2.5 million Latinos, but for Puerto Rico itself. (After the island's 2015 debt default, she delivered a forceful speech on the council floor decrying Congress's austerity-style remedies for a territory of 3.5 million US citizens.) And she has gained a national profile as a pugnacious critic of Trump and a fierce defender of immigrants.

She has also squared off with fellow progressive de Blasio, perhaps most notably over the "broken windows" crime-fighting philosophy of then NYPD chief William Bratton. Mark-Viverito argued that arrests for nonviolent offenses, such as having an open container of alcohol or being in a park after hours, took an unjust toll on people of color, and that the city, by handling such offenses in civil rather than criminal court, would save money, unclog the system, and enforce the law without ruining lives. The compromise she hammered out with de Blasio and Bratton - the Criminal Justice Reform Act of 2016 — is one of Mark-Viverito's proudest achievements, one she said will "change trajectories for countless New Yorkers."

involved in the case for much of her life, and Obama had so clearly been the last hope.

Mark-Viverito savored the moment. She shared her joy with the council and expressed gratitude to Obama in her council-meeting remarks. No one denied her the pleasure. The hands of the pendulum clock on the wall of council chambers were moving inexorably toward the new day.

BACK TO THE STREETS

A week later, Mark-Viverito stood in front of the same flags in the same pressroom. Her anger flared visibly. President Trump had begun issuing

executive orders to build a wall on the Mexican border, deny federal grant money to sanctuary cities, expand deportations, and sus-

Throughout her years in the tabloid glare of City Hall politics, Mark-Viverito has conscientiously guarded her privacy. Some details are known. She isn't married. She has no children. She lives in an East Harlem townhouse.

But she doesn't talk about that stuff. If she really wants you to know something, she'll tweet it.

Twice during her speakership she used Twitter to make personal disclosures. In 2014, she revealed that she had human papillomavirus, a common sexually transmitted virus that can lead to cervical cancer; and last October, after the leak of a decade-old video in which Trump bragged about groping women, she was motivated to divulge that she had been sexually abused as a child.

In both cases, she felt it her duty to use her platform to reduce stigma and raise awareness. "Yes, I'm an extremely private person," she tweeted. "But this position has led me to understand I now have a bigger responsibility."

A REPRIEVE

On January 18, 2017, the New York City Council convened. One might have

I DON'T HAVE TIME FOR FEAR. I WANT TO DEFY, RESIST, STAND UP."

expected a more pensive mood two days before Trump's swearing-in, but City Hall was bubbly. Hugs, jokes, laughter among the gathering lawmakers. What was most striking about the atmosphere was the degree to which New York was eager to get down to New York business: passing laws regarding flower vendors, tax liens, arts programs, and vanpool regulations. Washington felt very far away.

The reporters filled up the pressroom for the pre-meeting news conference, and the seven council members who sponsored the bills stood in front of a backdrop of state, city, and borough flags. Then the side door opened, and Mark-Viverito entered; and as she greeted her colleagues, it became clear that the high spirits in the chambers radiated from the Speaker.

She was still on a cloud. The day before, President Obama '83CC, in the waning hours of his presidency and after desperate appeals from Mark-Viverito and others, made the announcement: Oscar López Rivera would go free.

When Mark-Viverito got the news in her office, she cried. She had been

pend immigration from seven majority-Muslim countries. Mark-Viverito strained for composure. "It's very hard to contain myself," she said. "I am *extremely* upset. So I don't have time for fear. I want to defy, resist, stand up. That's what we need to do as a city."

That night, thousands of New Yorkers of all backgrounds and religions gathered in Washington Square Park, holding candles and signs in support of immigrants and refugees. New York was "demonstrating its values," as Mark-Viverito had said it would. Things had gotten real, and there was no telling how any of it would play out.

Mark-Viverito was in the park, by the triumphal arch, in front of the microphones, where other city leaders, including public advocate Letitia James and comptroller Scott Stringer, had given strident, defiant speeches.

The City Council Speaker stepped forward, and her voice rose over the crowd's cheers, echoing the cadence of history. Her message was simple and direct: "I'm here to say I add my voice to the resistance." Δt



COLUMBIA'S BOLD VISION FOR A NEW CITY CAMPUS BEGINS TO TAKE SHAPE

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What should a 21st-century university campus look like?

In 2003, when President Lee C. Bollinger announced Columbia's most significant building project in more than a century, he emphasized that the Manhattanville campus would be a new kind of academic space: one that would foster interdisciplinary research to address the complex challenges facing society and also make a real contribution to the local community.

This spring, Columbia officially opens the first new buildings on that campus: the Jerome L. Greene Science Center and the Lenfest Center for the Arts. The University Forum, a new academic conference center, is under construction, and the Columbia Business School should have a home on the site by 2021. The seventeen-acre parcel of land, located in a former industrial area of West Harlem, will eventually accommodate more than a dozen buildings, to be developed over several decades.

President Bollinger, who has often spoken of the role of great academic architecture in inspiring the pursuit of knowledge and creativity, engaged the world-renowned architectural practice Renzo Piano Building Workshop to design several of the facilities in Manhattanville and create a campus master plan. In the following essay, architect Renzo Piano '14HON explains the evolution of the campus's design and how it reflects a bold vision for the University's future. f you are lucky as an architect, you may get an opportunity at some point in your career to design a building that reflects a shift in society. You need to be in the right place at the right time. When I was very young, more than forty years ago, I had such an opportunity when I was chosen

to design the Centre Georges Pompidou, the home of France's national museum of modern art in Paris. That structure, with its glass facades and exposed mechanics, celebrates a change that was then occurring in the European art world, as museums were becoming less intimidating and more welcoming to the general public. I feel that my team's work for Columbia is similarly exciting, since the final product will likely be seen as proposing answers to two profound questions: What should a twenty-first-century university campus look like? And how should urban universities, in particular, relate physically to their host cities?

Creating a campus from scratch is a complex task, especially in a dense metropolis. When Lee Bollinger invited me to work on this project, alongside Skidmore, Owings & Merrill, in 2003, there was debate about whether Columbia should build a traditional campus. One of the other options was to scatter the new buildings throughout the city. Many other urban universities were expanding in this way. But Lee and other University leaders ultimately decided that this wouldn't suffice. They said that it was important that the Columbia facilities they planned to build all be situated together, so that faculty and students working in fields as disparate

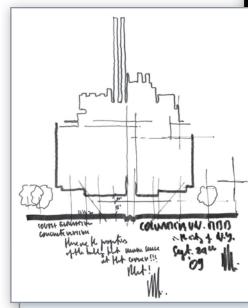


as neuroscience, business, and the arts could intermingle and learn from each other. This is, after all, one of the essential functions of a campus: it creates a shared space where scholars from different disciplines can come together and cultivate diverse approaches to life.

Columbia, of course, already sits on a fantastic campus. Designed by McKim, Mead, and White in the late nineteenth century, the Morningside Heights campus is a small acropolis, with classical buildings, green lawns, and contemplative quads that set it apart from the city grid. This gesture was intended to enclose and protect. Indeed, protection is built into the history of campus architecture. It is an understandable and, at times, even a desirable thing. The intent is to insulate students from the quotidian freneticism of the outside world.

But this strategy of productive remove also creates a space that is fundamentally guarded - the Morningside campus fosters a sense of community, but not an entirely inclusionary one. The gates of 116th Street, in addition to projecting an aura of dignity, also confer a sense of asylum and fortification. And the architecture is a bit intimidating. The heavy stone walls, marble columns, and historical design elements say to the outside world: *We are* a cultivated people; trust us. In the past, this was a typical way for universities to convey their authority. When the Morningside campus was built, higher education was still largely for elites. Today, it is more accessible, and Columbia is deeply engaged with its local community. So my colleagues and I, in designing Columbia's new

THE JEROME L. GREENE SCIENCE CENTER

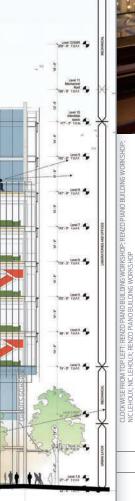




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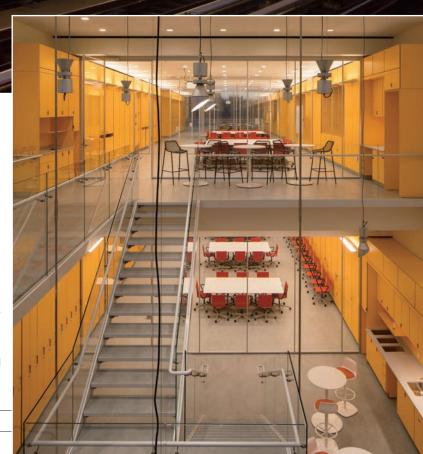
CLEAN MACHINE

Like all new buildings on the campus, the Jerome L. Greene Science Center is intended to be a model of environmental sustainability. Architects at Renzo Piano Building Workshop, working with local architectural firms Davis Brody Bond and Body Lawson Associates, designed the building with a highly reflective "cool roof" to mitigate the summer heat. The space is also equipped with solar sensors that raise and lower window shades to help regulate temperature and a double-skin glass façade that acts as an insulator.



A PALACE OF LIGHT

The 450,000-square-foot Jerome L. Greene Science Center is the home of Columbia's Mortimer B. Zuckerman Mind Brain Behavior Institute. Here, hundreds of scientists from a variety of disciplines will pursue collaborative research in neuroscience. The building has an open-floor concept and interactive spaces where researchers can meet and exchange ideas. Renzo Piano says the building's glass facade provides the scientists inspiring views of the city while enabling passersby to observe the researchers working in their laboratories. "It is a palace of light," says Piano. "Its transparency is meant to underscore that the knowledge being generated inside is for the public and will be shared with them."



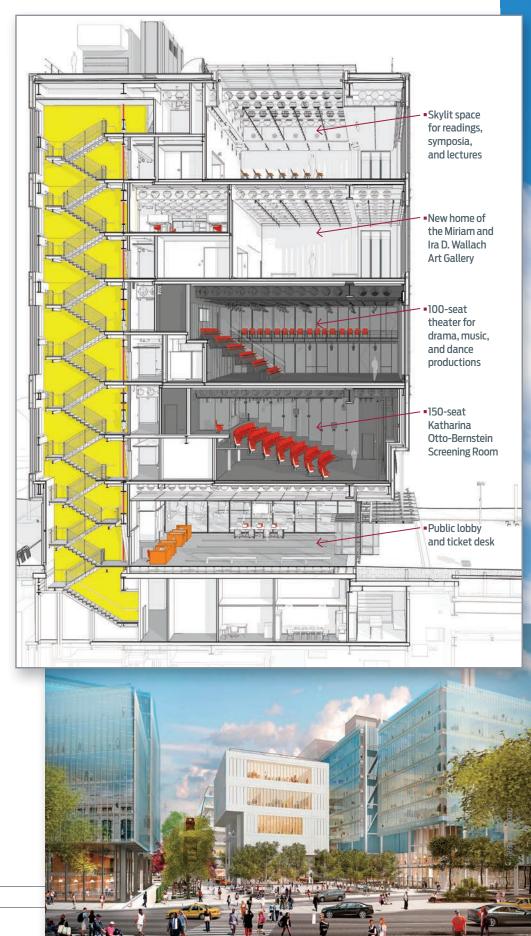
Manhattanville campus, have a different story to tell.

How do you create a campus that projects a sense of dignity and trustworthiness without being guarded? We've attempted to do this in Manhattanville by designing a campus master plan that calls for a radical degree of openness, transparency, and accessibility. Whereas the Morningside campus evokes history, the Manhattanville campus is all about the contemporary. Whereas Morningside is heavy and monumental, Manhattanville is light, airy, and luminous.

No gates or walls will encircle this new campus. In fact, several streets that intersect the land on which the campus is now being built will remain open to traffic. Beautifully landscaped pedestrian paths will extend out into the surrounding neighborhoods, beckoning local residents into the academic sphere. When they arrive, they will find that the first floors of the new buildings are open to the public and offer a variety of community programs. For example, in the Jerome L. Greene Science Center, which is home to the Zuckerman Mind Brain Behavior Institute, there is an Education Lab where schoolchildren can learn about brain science, as well as a Wellness Center where people can get free health services. Next door, in the Lenfest Center for the Arts. members of the public will be able to attend film screenings, theater and dance performances, and art exhibitions.

The activity taking place at street level will be the heart of the new campus. This is where the University and the city will meet. There will be no clear boundary between the two. This is by design. Columbia University's academic programs are enmeshed within New York City,

THE LENFEST CENTER FOR THE ARTS



THE CREATIVE HUB

With the opening of the Lenfest Center for the Arts, Columbia's School of the Arts and the Wallach Art Gallery will have dedicated spaces to showcase the works of students, faculty, and visiting artists. In order to achieve column-free spaces in the performance areas, lead architect Renzo Piano distributed the building's weight onto vertical beams positioned around the perimeter. Says arts-school dean Carol Becker: "The center is going to allow us to reach new audiences and to build deeper relationships with local communities."



both serving it and drawing inspiration from it. Our new architecture reflects this: rather than pulling Columbia back from the city, it pushes the University forward so that it can be a citizen, too. The pedestrian traffic flowing through these buildings will also give them a certain lightness. A good building, I like to say, can fly. Sometimes, a well-placed beam or column creates a sense of upward motion that lifts your structure off the ground. Of course, Columbia's new buildings touch the ground, but they are public on the street level; they're permeable, porous, and accessible. There is no frontier between the buildings, the city, and the street. If buildings are to be loved and embraced, they cannot be selfish.

Manhattanville has proved to be the perfect location. It is only a ten-minute walk from Morningside Heights, which means that events taking place at the new conference center that is slated to open in 2018 will be easily accessible from the main campus. The stretch of land we chose was suitable also because most of it was underdeveloped, with lots of vacant warehouses and garages. On top of that, the surrounding neighborhood of West Harlem is an incredibly diverse one, known for its vibrant street life, street art, and street music. This will give the campus a terrific energy.

This spring will come the moment of truth. When a new building is finished, I like to stand nonchalantly behind some beam or pole and watch people walking in. Sometimes they look beaten or disconcerted. Other times they smile. If they look happy, I know I have done my job. It means that I've given back to the city that which it gave me: a good space.

THE FUTURE



OPEN TO ALL

Key to the new campus's feeling of openness and accessibility will be its green space, public plazas, and wide sidewalks lined with trees. The goal is to make the campus inviting to neighbors as well as to provide a scenic path to the new West Harlem Piers Park, which Columbia helps to maintain along the Hudson River waterfront.



UNIVERSITY FORUM

A NEW KIND OF CAMPUS

The Manhattanville campus will be developed gradually over several decades. By 2021, there will be at least three new buildings on the site in addition to the Jerome L. Greene Science Center and the Lenfest Center for the Arts: the University Forum (above), a conference center designed by Renzo Piano Building Workshop with Dattner Architects and Caples Jefferson Architects; and two Columbia Business School facilities (left), the Ronald O. Perelman Center for Business Innovation and the Henry R. Kravis Building (detail, right), both designed by the architectural firm Diller Scofidio + Renfro, together with FXFOWLE Architects and Aarris Atepa Architects. Thousands of faculty, students, and administrators will study and work on the Manhattanville campus, and members of the community will be able to enjoy the wellness and learning centers, cafés, and art exhibits open to the general public. "You will have science, art, and community - the essence of a campus," says Renzo Piano. "Yet it will be a new kind of campus in that it will embrace the complex urban condition."

To learn more, visit **manhattanville.columbia.edu.**



Labor of Love With her latest play, Sweat, School of the Arts professor Lynn Nottage turns hard work into high art

By Stuart Miller '90JRN Illustration by Alvaro Tapia Hidalgo



rowing up in Brooklyn in the

1970s, Lynn Nottage loved the stoop culture, with its polyglot mix of working- and

middle-class characters hanging out telling tales. "It was a rich storytelling community," she says of Boerum Hill, where she still lives.

When she wasn't listening to stories or playing in the streets, Nottage could often be found in the library, reading one book and then "following the trail to another, an adventure with the Dewey Decimal System, weaving around making discoveries."

Listening and learning - and discovery – have been central to Nottage's success as a playwright, and were particularly crucial in bringing her latest drama, Sweat, to life. The extraordinarily timely and well-received play, which opens on Broadway this spring, explores the unraveling lives in a working-class community where manufacturing jobs have disappeared. "This compassionate but cleareyed play throbs with heartfelt life, with characters as complicated as any you'll encounter at the theater today," wrote Charles Isherwood of the New York Times when Sweat premiered in 2015 at the Oregon Shakespeare Festival. In the Wall Street Journal. Terry Teachout called Nottage "as fine a playwright as America has," and praised the play's "raw passion and searching moral consciousness."

Nottage, a Columbia professor since 2014, is fifty-two and lives in Brooklyn with her husband, filmmaker and fellow Columbia professor Tony Gerber '95SOA; their children; and her father. They live in the same brownstone in which Nottage grew up, although Boerum Hill, near the Brooklyn Academy of Music and the Barclays Center, has gentrified greatly since the days she rode the graffiti-scrawled subway to school with future writer Jonathan Lethem, who later wrote about the neighborhood in novels like *The Fortress of Solitude*.

While Lethem's Fortress was set in the late twentieth century, Nottage's writing went further back. When cleaning out her grandmother's brownstone after she passed away, Nottage discovered a passport photo of her great-grandmother, who had been a seamstress a century earlier. Nottage became fascinated by this woman and sequestered herself in the New York Public Library to learn more about her world. The result was Nottage's 2003 breakthrough play, Intimate Apparel. Set in 1905 on the Lower East Side, the play is about Esther, a lonesome, unmarried seamstress who sews bridal

undergarments and dreams of love and marriage. about the hardships she had suffered economic and psychological — after the 2008 financial collapse. Nottage felt she had to do something. As a writer, that meant searching for the story.

She and her friend went down to Zuccotti Park, where the Occupy Wall Street protesters were encamped, but Nottage knew the real suffering of the economically disenfranchised was unlikely to be found in Lower Manhattan. Not long after, she read an article declaring Reading, Pennsylvania, the poorest city in the nation. Nottage was intrigued by the "de-industrial revolution," and she saw in that dying city a story crying out to be told.

"All my plays are about people who are marginalized by circumstances,"

"All my plays are about



Nottage's second play, *Ruined*, was a big departure, geographically and thematically. Mama Nadi, the businessminded proprietor of a brothel in wartorn Congo, protects but also exploits young girls who have been brutalized in the war. *Ruined* won the 2009 Pulitzer Prize for Drama.

The origins of *Sweat* go back to 2011. That year, Nottage received an e-mail from a friend who opened up to her she says. "The folks on the stage in *Sweat* are not that different from the folks on the stage in *Ruined*. These are people who find themselves in the midst of ugly situations, and in order to survive they end up making very compromised choices."

Armed with a commission from the Oregon Shakespeare Festival and the Arena Stage in Washington, DC, Nottage began traveling to Reading to hear its stories. She spoke with everyone from politicians to business owners to angry, unemployed white steelworkers, who blamed the Latino population for many of their problems and who would soon gain attention during Donald Trump's presidential campaign. She was accompanied in her visits over the next few years by her husband and by director Kate Whoriskey, who first worked with Nottage on *Intimate Apparel*, back in 2003, and who traveled with her to Africa for research on *Ruined*.

"A lot of playwrights have a thesis and set out to prove it, but Lynn is really going out to explore, and she really is eager to listen," says Whoriskey. "And she's willing to put

At each production - in Oregon, in Washington, and off-Broadway -Nottage and Whoriskey fine-tuned the play; they made a minor tweak in the ending after Election Night but not in the dialogue. "It was a small calibration that had to do with the nature of the stillness on the stage," Nottage says, adding that while she didn't think Trump would win, after spending so much time in Reading, she was "surprised that people were surprised that there was so much anger and frustration. The working class has been struggling for a very long time not just the last eight years but the last twenty years."

For Broadway, Nottage had to look beyond the script to "the marketing

people who are marginalized

herself in situations that other people might find uncomfortable."

Whoriskey admits that this "period of searching," in which Nottage sets off in one direction and then pivots to another, "gets a little scary, and you wonder if we will find a story. But Lynn is confident that if you look long enough, the story will come to you."

Nottage found openness pretty much everywhere she went in Reading. "There was no wariness," she says. (Locals were also thrilled when they brought the show to town for a staged reading last fall.) "It was, 'Wow, someone is interested in us; our world exists.' In New York we take that for granted, but they feel like they are ignored. It's like a little dose of validation."

But while everyone was willing to talk, few had much hope, no matter how hard Nottage looked. "I always look for spaces of sunlight, but there were so few pockets of optimism," she says. So while she was trying to avoid writing "poverty porn," she did end the show without uplift or even resolution. "I couldn't end with more resolution because I don't know what the next step is and the pundits don't know either."

by circumstances."

game plan, the art — you have to expand your entire machinery," and she had to worry about whether her show could fill a 650-seat house instead of a 199-seat one. "That's kind of daunting," she says. "But what's exciting is that 650 people can see the play in one night — if it works."

Nottage did not have the luxury of focusing on *Sweat* alone: she is working on a musical adaptation of the film *Black Orpheus* with director George C. Wolfe and an opera version of *Intimate Apparel* — all while her father is ill, her daughter has started college, and she has a seven-year-old at home.

"It has been a terribly chaotic time," she says. "It's a lot that my brain is processing and a real test of stamina."

With all those balls in the air, Nottage finds her one other responsibility - teaching at Columbia - to be "a refuge."

"Strangely, when I go up there and I sit in the classroom, I feel at peace," she says. Everyone in her life knows that she has set aside her Fridays and cannot be distracted from her two three-hour classes and her independent studies. "In the spring, I also stay afterward, often till ten o'clock, to see the students' work, but I did ask this semester that they not do two-hour plays without intermissions," she says with a laugh. "That would break me."

Managing her life and her Broadway opening is also a teaching tool for her graduate students. "They are curious about it, and I have to be very realistic about what it takes to make a living as a playwright," she says. "And it really involves being a very adept juggler: you have to be doing multiple things to pay your rent, to pay for your health care. We talk a lot about juggling things and still finding time to write and still finding time for your mental health."

Nottage, who has been a visiting lecturer at Yale University and elsewhere, says that the Columbia professorship "frees me to be a

> writer" — a feeling she had experienced in 2007 after winning a MacArthur "genius" fellowship, which

came with a \$500,000 grant. "That meant freedom from a certain level of anxiety," she says. "I hadn't realized how paralyzing it could be and how much time it consumed, worrying about making a living. That liberated me as an artist." Understanding those stresses also helped inform her writing, especially in *Sweat*.

And while the play is finished, Nottage is not ready to let go of Reading. She hopes to return there later this spring to mount a multimedia art installation about the city and its people. She's also setting her next play there. It will take place in 2008 and revolve around locals trying to reclaim their lives after getting out of prison.

While that sounds like another heavy topic, there will also be some lightness. "It's a little funnier than *Sweat*, and a little more Buddhist," she says.

The research should be easier this time around, not just because she has already spent so much time in Reading. "This one is about a sandwich shop," she adds with a smile. "So eating sandwiches is part of my research."



the constant

chronicler

At 98, David Perlman '39CC, '40JRN, a pioneer of science journalism, may just be the oldest working reporter in America

By Ian Scheffler '12CC / Photographs by Victor Wang

It was a minor item.

just ten inches of copy. It ran on the fourth page of the San Francisco Chronicle on June 6, 1981, and carried no byline. "I thought it was so unimportant that I didn't put my name on it," says David Perlman '39CC, '40JRN. A PNEUMONIA THAT STRIKES GAY MALES, ran the headline. "And that was the start of it."

By "it" Perlman means the reporting of the AIDS epidemic, which he covered for the newspaper until the 1990s. He arrived at the Chronicle in 1940 as a copy boy and started on the science beat in the late 1950s, at the dawn of the space race. Over time he filed stories on the

advent of nuclear power and the earliest warnings of climate change. Last year, Perlman, ninety-eight, published some fifty articles, on everything from coral reefs to the search for extraterrestrial life.

"I'll keep working till I drop dead at my desk," Perlman once told the New York Times. "Unless the paper dies first."

The Chronicle has occupied its namesake building at the corner of 5th and Mission since 1924. Perlman arrives most days around 9:30 a.m. In one of his few concessions to age, he carries a cane, which he juggles with his notebook.

He takes the same route every day. "I leave my house on 5th Avenue," Perlman says, "drive down Geary, take Jones to Eddy, cross Market at 5th Street, and drive into the parking lot." He got a new car, a Mazda compact, two years ago. "Goes like a bat out of hell," he says.

Perlman's office in the corner of the newsroom reflects the sensibility of a man whose first article was printed by mimeograph. There are precarious stacks of papers, and yellowed headlines tacked to the walls. Though Twitter's headquarters are four blocks away, Perlman doesn't tweet; he has an account, @daveperlman, but it got hacked, and he hasn't tried to fix it. "I don't pay attention to social media," he says. "I *should*. I know that. But I'm out of that loop." Still, his Twitter bio is appropriately terse: "Science editor, The San Francisco Chronicle since 1959."

When Perlman arrived at Columbia, in the

mid-1930s, College Walk was still a through street. South Hall — now Butler Library — had just been built. Perlman can even remember crossing paths with Sid Luckman '39CC, the future NFL Hall of Fame quarterback.

"Columbia was the only college I applied to," says Perlman, who grew up on the Upper West Side. But proximity wasn't the only draw. It so happened that Columbia College, as Perlman tells it, "had the best daily newspaper of any university in the country."

As a kid, Perlman had seen *The Front Page*, though he's not sure if it was on Broadway, where it opened in 1928 and closed the following year, or in a movie theater, when the film version was released in 1931. Nonetheless, it made an impression. "It was such a romantic characterization," Perlman says of the image of the tabloid scribes sitting around smoking in the pressroom of Chicago's Criminal Courts Building.

In Perlman's college days, the *Spectator*, along with the other student publications, was located on the fourth floor of John Jay Hall. (When informed that the newspaper is now based offcampus, on Broadway at West 112th Street, Perlman expresses shock. "My God," he says.)

By his senior year, Perlman was editing the paper. "I majored in the *Spectator*," he is fond of saying. Fortunately, his roommate took many of the same classes. "I really thrived on his notes," Perlman says.

After graduating from Columbia's journalism school in 1940, Perlman went to Bismarck, North Dakota, to join a local paper. "I did not cotton to that bucolic life," he recalls. Some of his journalism-school classmates worked in San Francisco. "I sent them a telegram and said, 'Get me out of here.' And they did."

But for a brief sojourn in Paris, where he wrote for the *Herald Tribune* after World War II, Perlman has been at the *Chronicle* ever since. In the summer of 1980, a young journalist named Erica Goode was placed under his watch.

"David is an extraordinary human being," says Goode, who went on to have a distinguished career as a science writer and editor at the *New York Times*. "He basically looks the same now



as he did when I first met him." Goode credits Perlman's youthful mien to his curiosity and enthusiasm. Perlman recently informed her that he planned to reduce his output from three or four articles per week to just one. Still, in the second week of January, he published two articles in two days.

Perlman is one of the few journalists for whom lifetimeachievement awards have been named who is, in fact, still living. Every year, the American Geophysical Union distributes the David Perlman Award for Excellence in Science Journalism. "If there could be said to be founders of science journalism," Goode says, "he is definitely one of them."

Perlman fell into his chosen craft.

Literally. After breaking his leg skiing — "a heavily comminuted fracture," he says, relishing the technical term for splintering — he was laid up in the hospital. This was in the 1950s, when science journalism as a discipline was still young.

While he was recuperating, a friend brought him a book about astronomy called *The Nature of the Universe*, by the English cosmologist Fred Hoyle. "I didn't really give a damn about the subject," Perlman says. But he was tired of reading detective stories, so he gave it a shot.

By the time he left the hospital, he had already made plans to visit an observatory in the Diablo Range, just east of San Jose. The first astronomer he met there studied the birth of stars in the Orion Nebula. "That was kind of an epiphany," says Perlman. "Stars get *born*? Way out there in a nebula, in the sky?"



he says. AIDS is a case in point: in 1981, when he wrote his first article about a rare form of pneumonia appearing in gay men, AIDS didn't have so much as a name.

"At the beginning of that mess," Perlman says, "things looked so damn hopeless." One of his colleagues, Randy Shilts, the pioneering gay journalist and activist, would die of AIDS. ("He was a committed guy and a hell of a reporter," Perlman says of Shilts, who wrote the bestselling *And the Band Played On*, the definitive history of the epidemic's early days.)

"And yet eventually," Perlman notes, "the AIDS virus was isolated, the politics were overcome, and now we have all these anti-retroviral drugs. It hasn't been that long since 1981."

In 2002, Perlman lost his wife of more than sixty years, Anne, a poet and journalist whose work appeared in the *Paris Review* and *Ploughshares*, among other publications. He has three children, two of whom are retired, and three grandchildren. He also has a dinner date. "I don't know what the term is these days," says Perlman. "I have a very dear friend."

He knows his scientific terms, though — and isn't afraid to use them. "David has schooled me a few times in the decade or so I've been his editor," says the *Chronicle*'s Terry Robertson. "Dumbing down science for the sake of the readers insults their intelligence. He holds fast to that."

And given what he sees as the anti-science bent of the new administration, Perlman says good reporting is more important than ever. "I'm asking scientists of all kinds, particularly

"If there could be said to be founders of science journalism, he is definitely one of them."

For Perlman, science journalism has always been about making the complex simple. "We try to explain what the science is in terms that people can understand," Perlman says. Recently, he wrote an article on three newly discovered species of salamander. "I got a heck of a lot of e-mails," he says, "people sending me photographs of salamanders in their own backyards."

Many were convinced their salamanders belonged to the new species. But that was unlikely: as Perlman reported, the new salamanders, which belong to the genus *Thorius*, are already in danger of extinction.

Extinctions, diseases, climate change — in his seven decades of reporting, Perlman has covered some profoundly discouraging topics. Yet his outlook is one of optimism: progress is the general rule. "Everything that I've covered I've seen moving forward," climate scientists, about their own fears," he says. One of his chief concerns is President Trump's budgeting for the satellites run by NASA and NOAA that track climate change. "Science is not — *should* not — be a controversial subject," Perlman says.

As for his longevity and productivity,

Perlman doesn't necessarily have a scientific explanation. He attributes his staying power mostly to luck. "I don't do anything I'm supposed to as far as health," Perlman says. "I don't exercise. I don't watch what I eat."

What he does do is stay engaged. Cane and notebook in hand, Perlman still attends science conferences, looking for stories to write.

"Every time I've written a story," he says, "I've learned something." Some things never get old. 🛥

Weighty Matters

Michael Rosenbaum, a professor of pediatrics and medicine at Columbia University Medical Center, is one of the world's leading experts in obesity. He also directs the new Columbia University FIT Center — Families Improving Health Together — a specialized clinic at the Morgan Stanley Children's Hospital dedicated to helping obese children control their weight. We asked Rosenbaum to explain his research on weight loss and metabolism.

By Claudia Dreifus



Columbia Magazine: How did you come to develop an expertise in weight loss?

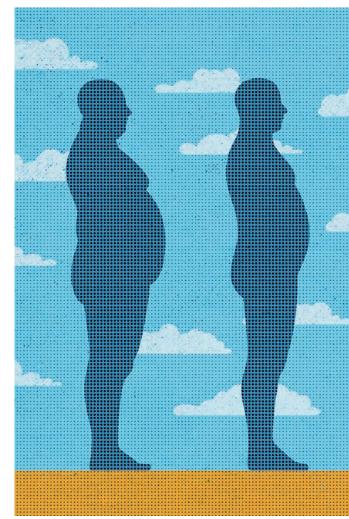
Michael Rosenbaum: In the mid-1980s, after I finished my pediatrics residency at Columbia-Presbyterian Babies Hospital, I became interested in basic research — particularly in studying the biology of obesity. Someone suggested that I talk to Dr. Rudy Leibel at Rockefeller University.

The prevailing idea at that time — one that still persists — was that weight gain was due to sloth and gluttony, and Rudy was collaborating with the late Dr. Jules Hirsch, also at Rockefeller, on a series of studies examining whether obesity was the result of "character failure" or biology.

I was honored when they invited me, a young scientist, to join their laboratory. Dr. Hirsch passed away in 2015, but my close collaboration with Rudy (now also a Columbia faculty member) has continued to this day.

The study you worked on with Dr. Hirsch and Dr. Leibel was a landmark. It changed our thinking about the biology of obesity.

It did. We admitted more than 150 healthy adults — some lean, some obese — to a clinical research center for



an average of nine months. Their diets and activity were tightly controlled, and our subjects were meticulously studied before and after losing at least 10 percent of their body weight.

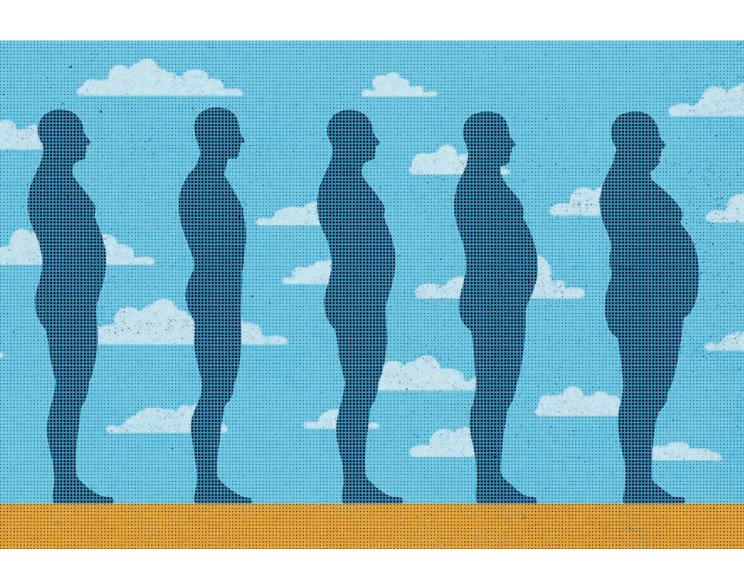
One of our main findings was that both during and after weight loss, our bodies fight back by decreasing how many calories we burn and increasing our appetites.

It doesn't matter if you start out lean or obese. After weight loss, multiple systems in our bodies work hard to restore us to our original weight.

Is there an evolutionary reason for this?

Absolutely. Early humans were subjected to frequent periods of poor access to nutrition. Those who were best at storing fat calories when food was available, and

DAN



conserving them when it wasn't, were most likely to survive and reproduce.

Not surprisingly, we are richly endowed with traits that defend the storage of calories as fat. Thus, after losing weight, your metabolism is probably slower and your appetite is probably greater. And they will probably stay that way if you keep the weight off. Once you regain the weight you've lost, your appetite and metabolism will return to earlier levels. If somebody loses 10 percent of their weight and they want to stay at that new low, they'll then need to eat three to four hundred calories less a day than someone who's naturally at that lower weight.

Another important conclusion was that losing weight and keeping it off are different. The genes, metabolism, and behaviors predicting how much weight you'll lose are not the same as those predicting how much you'll regain afterward. So you need separate therapies for weight loss and weight maintenance. To keep it off, you must actively work to reverse the biological changes induced by weight loss.

Is that why contestants on television programs like *The Biggest Loser* often regain their weight?

After losing large quantities of weight, the bodies of the contestants are, presumably, not where they want to be. All the systems favoring weight regain are on red alert.

So, once people have lost weight, they must change their lifestyles — either by eating fewer calories or by changing their exercise patterns. *The Biggest Loser* contestants lost their weight in a highly controlled environment, with significant incentives. Outside of that environment, it's hard to escape the biology of weight regain. I don't like these sorts of programs. They are the modern version of the spectacles at the Roman Coliseum. There shouldn't be entertainment value in somebody's medical problem.

Is there a basic formula for weight loss?

The best way to lose weight is to burn more calories than you eat. You can work both sides. You can eat less. You can exercise more. Hopefully, you'll do both.

The problem is that the more you lose, the more your metabo-

lism slows down. At some point, your body is going to say "that's enough" and you're not going to lose more.

We often hear about some new drug that is certain to change everything about weight loss. Are the new pharmaceuticals helpful?

There are no miracle drugs yet. What's out there and has FDA approval works by decreasing food absorption, decreasing appetite, or increasing the metabolism.

Going forward, I believe these can all be more effectively deployed by combining them with some other drugs already on the market but not currently approved specifically for treating obesity.

I'm excited by the potential of medications currently in development that affect the leptin-signaling pathways. They may help us maintain fat loss by fooling our bodies into thinking we haven't lost weight. Leptin is a hormone that plays a pivotal role in our losing weight and then regaining it later. Low leptin levels provoke many of the changes that make it so hard to lose weight and keep it off.

I also believe that within a decade, precision medicine customized treatments — will have a huge effect. We're going to see ways of identifying the best therapy for somebody in advance of their losing weight. There will be certain genetic, biological, and behavioral testing that will predict what you need to do to be successful. At our FIT program we're already doing some of that.

Tell me more about the FIT Center and why you have made it your life's work to study and treat the special problems of overweight children.

As we've discussed, most adults find it really hard to lose weight and keep it off. Only about 15 percent are successful. That number hasn't changed in thirty years.

Children seem to do much better. They are better able to make changes in their lifestyles. Because they're growing, they usually don't have to lose weight — only slow down weight gain so they gain inches faster than they gain pounds. They can become slimmer over time and sustain that. At the FIT program at CUMC, we blend genetics, physiology, and behavioral science to identify the characteristics of a child that are most treatable. For example, if we find that a child has very high triglycerides, we will work with the family and our nutritionist to create a diet — with foods that the child likes and are easy to prepare — that addresses that need.

Our team of experts in pediatric endocrinology, gastroenterology, cardiology, molecular genetics, nutrition, and exercise work together to provide the best possible care and, at the same time,

learn more about childhood obesity to the point that it does not persist into adulthood.

What makes your FIT program different from other types of services available to obese children?

Unlike most if not all similar clinics, which require referrals to multiple subspecialists, the FIT program offers all the help and encouragement the young patient needs, in one visit, at one place. The program is modeled after Columbia's highly successful Naomi Berrie Diabetes Center, which works with adults. We're still looking for a primary sponsor for the center, and we think that over the long term, this is the most effective way to address the obesity epidemic.

With adults, what is your opinion of the various gastric surgeries?

On the whole, they result in more rapid and greater weight loss than other options. Generally, the amount of weight loss by Lap-Band surgery is about 15 percent. It's usually more if you have gastric-sleeve or gastric-bypass surgery. As with most interventions, the weightloss period lasts about six to eight months and

is often followed by some regain. One bonus here: the more dramatic procedures often result in a rapid improvement in type 2 diabetes, which along with hypertension and fatty disease is a common complication of obesity. My hope is that we can develop non-surgical means to induce the same changes in the body.

Are Americans more obese than ever?

The world is more obese than ever. Not just Americans. China is having the same problem. We've increased access to calorically dense foods. We supersize things. At the same time, we've become more sedentary. At this point, 70 percent of the American population is overweight or obese.

So what would you tell a relative who needed to lose weight?

I would tell them that this is a biological disease. It's not their fault. I would tell them that losing weight is hard, and that if they can't do it I'll still love them for trying. I would also say that within a decade we're likely to have ways to make it easier.



"After weight loss,

our bodies fight

back by decreasing

how many calories

we burn and

increasing our

appetites."

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EXPLORATIONS

FRONTIERS OF RESEARCH AND DISCOVERY

African elephants like these, in Kenya's Samburu National Reserve, are being wiped out by poachers.



Elephant poaching is still a huge problem, new evidence shows

cientists have used an innovative carbon-dating technique to prove that, despite a global crackdown on poaching, African elephants continue to be slaughtered at a rapid rate to fuel the illegal ivory trade. The new study, which appeared in the Proceedings of the National Academy of Sciences, analyzed 231 tusks from seizures in nine nations and concluded that almost all the tusks came from the bodies of animals killed less than three years before they were shipped.

"The ivory pipeline coming out of Africa today consists almost exclusively of recently harvested tusks," says study co-author Kevin Uno, a geochemist at Columbia's Lamont-Doherty Earth Observatory. "This has huge implications for our estimates of the number of elephants being slaughtered."

A continent-wide census completed in 2015 found that African-elephant populations are shrinking by 8 percent a year. Still, scientists have debated exactly how much of this decline is due to poaching and how much is the result of habitat loss and other factors. One reason for the debate is that it is difficult to know if seized tusks — which scientists count to estimate the prevalence of poaching — stem from recent kills. Some experts have suggested that many tusks confiscated by law enforcement in Africa and Asia are stolen from stockpiles built up by corrupt governments over the last several decades.

"Conservationists have held out a perverse hope, you might say, that criminal organizations running the international ivory trade are accessing lots of tusks from these older stockpiles, since this would mean that the slaughter taking place today is less severe than it would otherwise appear," says Thure Cerling, a biologist at the

KEVIN UNC

University of Utah who led the research team. "But that doesn't seem to be the case."

In the course of their investigation, the scientists used an analytic technique that Uno developed in 2013, which involves looking for the presence of a rare isotope in the tusks: Uno has shown that a tusk's level of the radioactive isotope carbon-14. which was introduced into the earth's atmosphere during the nuclear-bomb tests of the 1950s and 1960s, can be used to determine the year a tusk stopped growing. (Elephants can live up to seventy years.)

"We showed that only four of the 231 specimens came from animals that had been dead for four years or more," says Uno.

Implicit in the findings is an ominous trend. The average lag time between an elephant's death and the seizure of its tusks has been increasing since 2011. Uno says this may indicate that smugglers are taking longer to acquire enough tusks for shipment, because there are fewer and fewer elephants left to slaughter.

"The tusks have also been getting progressively smaller, which suggests that most of the really big elephants have already been killed," says Uno.

Moana's

hair flows

naturally,

thanks to Columbia

computer

scientists.

Uno and his colleagues hope that more accurate statistics generated by their dating technique — combined with the ongoing global effort to reduce the demand for ivory — will help put an end to the crisis.

"The elephants are in real trouble," he says. "To save them, the poaching must end soon."

Lights! Camera! Algorithms?

ringing an animated character to life on the big screen requires not only the contributions of hundreds of artists, sound engineers, and film editors, but also the guidance of some good mathematicians. Take it from Columbia computer scientist Eitan Grinspun, whose research in geometry has been instrumental in producing some of Hollywood's most successful recent animated movies, including the latest Disney blockbuster, *Moana*.

In creating *Moana*, artists at Walt Disney Animation Studios used complex equations developed by Grinspun to make their characters' hair realistically flow, bounce, and twist. In earlier Disney films, including 2010's *Tangled*



and last year's *The Jungle Book*, they employed his algorithms to depict the subtle movements of clothing and the swaying of tree branches.

"We're giving animators a more precise way to imitate reality," says Grinspun, an associate professor of computer science at Columbia Engineering and the director of the Columbia Computer Graphics Group. "It's exciting to see how the technology that we develop really enhances the stories and characters presented in these films."

Grinspun specializes in the nascent field of discrete differential geometry, a branch of mathematics in which computers are used to observe, model, and replicate the movements of physical materials in extraordinary detail. His work in film began in 2009 when Rasmus Tamstorf, a senior research scientist at Disney, called Grinspun to inquire about the company using his modeling techniques. Grinspun and his students soon developed software that enabled Disney's animators to mimic the way fabric naturally moves as a character dances. runs, sits, or escapes from the clutches of a cruel villain.

The technology was first used to create *Tangled*, an adaptation of the

"Rapunzel" fairy tale that would go on to receive widespread acclaim for its innovative computer-generated imagery. Since then, Grinspun and his graduate students have become the go-to experts for depicting the movement of clothing and hair in animated films.

"Our goal is to give the artists control over the creative process while removing as much of the tedium as possible," says Grinspun. "They choose exactly where and when to apply our technology in a scene, and with a few strokes,

they can capture their ideas."

What sets his team apart from many other computer-graphics groups working in film, Grinspun says, is its grounding in mathematical principles. To create the naturally flowing hair of characters in *Moana*, for example, he and his students studied the work of the seventeenth-century astronomer Johannes Kepler, drawing inspiration from his insights into the laws of planetary motion to create their own algorithms that predict how thou-

EXPLORATIONS

sands of hair strands will move together.

"We aimed to create a mathematical model as simple and as elegant as Kepler's," Grinspun says. "We consider this work quite serious. We never say, "This is only for a movie."

Indeed, the team is also exploring applications of its research in medicine, robotics, electronics, and infrastructure. Currently, for example, Grinspun and his students are helping civil engineers at MIT develop a new method for deploying underwater Internet cables that will prevent them from becoming tangled on their way down to the ocean floor. Medical researchers are also using algorithms developed by Grinspun's team to create needles that can bend and turn inside a patient's body.

"Our insights are applicable to a wide range of problems that involve anticipating the movement of flexible, stretchable structures," says Grinspun.

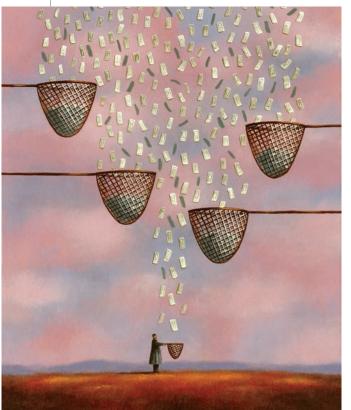
The beauty of mathematics is a source of endless inspiration to Grinspun, who taught himself to program computers at age nine. Ideas for solutions to real-world problems often come to him, he says, while he's observing how familiar materials move — how spaghetti coils as it is being plated or how a stream of honey wiggles as it is poured into a cup of tea.

"The world is very rich with complicated physical interactions," says Grinspun. "There is no end to how much of that complexity we can capture on a computer." — Melanie A. Farmer

Is the wealth gap really new?

any economists say that income inequality in the US has risen sharply in recent decades. However, a forthcoming paper by Columbia economist Wojciech Kopczuk and Yale legal scholar Conor Clarke suggests that the gap between rich and poor has not grown as much as is commonly believed. Comparisons to previous eras are off, the authors say, because economists have

corporations would often keep some of their earnings in the company rather than taking the money home as salary. The researchers speculate that this practice was common because for most of the twentieth century the highest US corporate-tax rate was lower than the highest individual income-tax rate — thus giving wealthy entrepreneurs incentive to treat their companies' ledgers as personal savings accounts.



failed to account for the fact that many business owners used to hide some of their personal income in company coffers.

Kopczuk and Clarke came to this conclusion after analyzing corporate tax records dating back to the 1950s. In comparing the yearly earnings of tens of thousands of companies — whose tax returns the IRS periodically releases to researchers in aggregate, anonymized form — they found evidence that the owners of small-to-medium-sized "This strategy fell out of favor rather abruptly when, in 1986, individual tax rates were lowered, finally putting them below the corporate rates," says Kopczuk. "We think that many business owners up until then had been limiting the compensation they gave themselves because they knew they could always access their company's money down the road."

Kopczuk and Clarke say that more research will need to be done to determine how much of the income retained by US companies before the 1980s ought to be considered the personal earnings of their owners. But they say that their preliminary findings suggest that economists who have previously studied

US income inequality have dramatically underestimated the true proportion of the nation's income once earned by the richest 1 percent.

"Understanding how income inequality affects a nation's long-term growth is of critical importance," says Kopczuk. "Gaining a more nuanced picture of how our economy has operated in the past, and learning whether or not inequality has hindered it, is essential to developing sound economic policies in the future."

Mummified leaves hold clues to ancient climate mysteries

This twenty-three-million-year-old leaf, one of hundreds that geologist Tammo Reichgelt has retrieved from a lakebed in New Zealand, is shedding light on our planet's climate history. Reichgelt, a postdoctoral researcher at Columbia's Lamont-Doherty Earth Observatory, has found that the leaves possess relatively few stomata, or pores, for inhaling carbon dioxide — evidence that the earth's atmosphere was unusually carbon-rich at the time the leaves were alive. Reichgelt says that his findings add to a growing body of evidence that CO_2 levels spiked at the beginning of the Miocene epoch, causing global temperatures to increase, ice sheets at the earth's poles to melt, and sea levels to rise.



In sub-Saharan Africa, turning the tide against AIDS

everal African nations once ravaged by AIDS are now making remarkable progress in controlling the disease, according to new research by Columbia epidemiologists Wafaa El-Sadr '91PH and Jessica Justman. The scientists report that the annual rates of new HIV infections in Malawi, Zambia, and Zimbabwe have fallen by 76 percent, 51 percent, and 67 percent, respectively, since 2003.

"Our findings suggest that these countries have turned the corner in their fight against the epidemic," says El-Sadr, a University Professor at Columbia who teaches epidemiology and medicine at the Mailman School of Public Health and who directs ICAP, a global health center at the school that focuses on combating HIV/AIDS. "They seem to be making remarkable progress at every point of the clinical delivery system: in testing and diagnosing people, in getting medications to those who need it, and in helping HIV-positive people take their medicine diligently."



Wafaa El-Sadr, at far left, and members of her research team conduct health surveys in Zimbabwe.

The preliminary findings, which were released on ICAP's website, are based on health surveys of more than eighty thousand people in the three countries. These surveys are part of a much larger ICAP-led effort to assess the status of the HIV epidemic in thirteen severely affected countries. Over the next three years, researchers will conduct similar assessments in Cameroon, Côte d'Ivoire, Ethiopia, Haiti, Kenya, Lesotho, Namibia, Swaziland, Tanzania, and Uganda. This effort, which is funded by a \$125 million grant from the US President's Emergency Plan for AIDS Relief (PEPFAR) and conducted in collaboration with the US Centers for Disease Control and Prevention, is the most comprehensive of its kind ever undertaken.

"The goal is to take stock of the effectiveness of HIV prevention and treatment programs to date and guide

future efforts," says Justman, an associate professor of medicine at the Mailman School and the researcher who oversees the project.

Despite the progress made recently in Malawi, Zambia, and Zimbabwe, El-Sadr cautions that there is much work left to be done. One in ten people in these countries, she points out, is HIV-positive. "There is a critical need to continue committing the resources necessary to bring this epidemic under control," El-Sadr says.

EXPLORATIONS All the food that's fit to print

3D printers are already being used to manufacture a range of products, from prosthetics to pistols, and someday there might be one on every kitchen counter, ready to download and print dinner.

While several entrepreneurs are applying the principles of digital manufacturing to cooking, researchers in Columbia's Creative Machines Lab are at the forefront of this culinary revolution. The 3D-food project - led by engineering professor and roboticist Hod Lipson —began more than a decade ago when students tried putting chocolate, rather than plastic, into 3D printers. The results were so intriguing that Lipson made digital cooking a primary focus of the lab. His team has even collaborated with professional chefs from New York City's International Culinary Center in an attempt to create more palatable printouts.

Recently, the Columbia team has been developing a 3D printer that can cook while it prints. "We're making a machine that's built specifically for food, rather than modifying an existing device," says Evan Murray Hertafeld, a fourth-year electrical-engineering undergraduate who is the team's student lead.

The Columbia prototype is unique in its ability to cook multiple ingredients at varying temperatures and rates. These ingredients, usually in the form of soft pastes or purées, are extruded from the machine, layer by layer, onto a surface that can be heated like a traditional stovetop. A software program determines the cook time and directs an infrared "spotlight" at sections that require additional heat.

As for consumer appeal, the goal is not to replace conventional cooking; rather, printing food opens up possibilities for culinary innovation, especially in the area of nutrition. "We'll have the ability to optimize food according to a person's dietary needs," says Lipson. "Your breakfast wouldn't be made out of standard foods. It would consist of whatever is good for you on that day, based on your biometrics." -Julia Joy

• HORS D'OEUVRES WITH DIMENSION



 The printer's robotic arm can hold several food cartridges. This appetizer will be made out of goat-cheese polenta and beet purée.



 Students program software that directs the printer's movements.



3. Multiple layers are extruded to create edible structures; the newest printer prototype can also cook the ingredients.



4. The bite-size printed appetizer is garnished and ready to eat.

Hoofed healers



ozens of US military veterans who suffer from posttraumatic stress disorder (PTSD) will soon be traveling to a horse ranch in Leonia, New Jersey. There they will participate in a Columbia study on the effectiveness of equine therapy to treat their symptoms — which can include sleeplessness, nightmares, flashbacks, and emotional withdrawal.

"Horses, like people, are highly social animals who are sensitive to the emotional states of others and can be quite expressive," says Prudence Fisher '00SW, an associate professor of clinical psychiatric social work at CUMC who is co-lead investigator of the study. "Anecdotal evidence suggests that for people with PTSD, interacting with horses can be very therapeutic."

Up to 30 percent of US military veterans are believed to have PTSD, and standard treatments, such as exposure therapy and cognitive behavioral therapy, fail to help many of them. Equine therapy has become an increasingly popular alternative, but the Columbia study is the first to evaluate its effectiveness in treating the condition.

Participants in the study, which will take place at the Bergen Equestrian Center, will be encouraged to bond with horses by grooming and caring for them.

"We're bringing scientific rigor to the question of whether this approach really works — and if so, how and why," says Yuval Neria, a professor of medical psychology at CUMC and also a co-lead investigator. "This will give equine-therapy programs around the country some guidance in standardizing their content and delivery."



Epic meltdown Greenland's massive ice sheet is more vulnerable to melting than scientists had previously thought. Joerg Schaefer,

a geochemist at Columbia's Lamont-Doherty Earth Observatory, has uncovered evidence that the ice sheet disappeared at some point over the past 1.4 million years. The discovery, he says, suggests the ice is unstable and could vanish again as a result of human-induced climate change.

Crooks' haven An investigation by Columbia journalism students, in conjunction with the nonprofit ProPublica, has found that the United States is an increasingly popular destination for foreign officials fleeing corruption charges in their home countries. This is due in part to the US's lax enforcement of immigration laws and financial regulations.

All work, no play Busy people and workaholics enjoy higher social status in the United States, according to research by Silvia Bellezza, an assistant professor of marketing at Columbia Business School. For previous generations of Americans, she says, prestige was associated with having more leisure time.

They need "the talk" Girls from low-income households are not receiving the information they need to emotionally prepare for puberty and menstruation, according to research by Marni Sommer '08PH, an associate professor at Columbia's Mailman School of Public Health. She says her research highlights the need for more discussion of puberty in schools and for programs that help parents talk to their children about sexual development.

Even the wind is partisan On windy election days, people are more likely to vote for candidates who represent the political status quo, according to a forthcoming paper by researchers at Columbia Business School. The authors, who analyzed one hundred years' worth of US presidential-election results, speculate that strong winds make people feel uneasy, leading them to vote for politicians who promise them safety and stability.

Something's in the water Columbia geochemists Beizhan Yan and Steven Chillrud '96GSAS have found heightened concentrations of chlorine and methane in dozens of drinking-water wells near Pennsylvania fracking sites. While the levels aren't yet dangerous, Yan and Chillrud say that their findings indicate that natural-gas extraction could affect water safety in the long run.

New strategy to slow ALS Researchers at Columbia University Medical Center have found evidence that fruits, vegetables, and other foods high in antioxidants and carotenoids can slow the progression of ALS, a degenerative disorder that causes the death of neurons that control muscle movements. — *Julia Joy*

NETWORK

YOUR ALUMNI CONNECTION

From Bags to Riches

teph Korey '15BUS was in her last semester of business school when she got a call from a grumpy friend, stuck at the airport with a broken suitcase.

"She didn't know whether to shell out a lot of money for high-quality luggage or to buy something else cheap that wouldn't last," Korey says. "We got to talking about why there wasn't an affordable, durable option on the market and wondered what it would take to make one."

Korey wasn't just a sympathetic ear. Before coming to Columbia for business school, she'd run the supply chain at the affordable eyewear startup Warby Parker, coordinating the logistics of getting the raw materials from supplier to manufacturer and the final products from manufacturer to consumer. And the friend on the phone was her former colleague, brand marketer Jen Rubio. Within three months, they had launched the luggage company Away.

To develop their suitcases, Korey and Rubio interviewed eight hundred people about their travel habits — starting with how they pack and get to the airport: "We wanted to map out the whole experience to figure out the pain points." They learned that people's top



concern about their luggage was weight, since they were either wrestling with carry-ons or paying extra for heavy checked bags. And, their research showed, the first two things to break on a suitcase are the wheels and the zippers.

On Korey's last day of classes at Columbia, she packed a stack of take-home exams into an old suitcase ("Before I started a lug-





- A nylon laundry bag and a compression pad make for easier packing.
- Every case comes with a lifetime warranty.



gage company, I was also lugging around a cheap, half-broken thing") and headed to Asia, where she met with manufacturers. Working with two industrial designers, she developed a product that incorporated stronger wheels and zippers and an outer

shell made from a light metal often used in fighter jets. "Every one of our materials has gone through extensive durability testing. It's basically like throwing the suitcases out of a third-floor window over and over again," Korey says.

Perhaps the most innovative feature of the Away suitcase is the built-in battery and charging dock. Travelers can plug phones and other USB-enabled devices directly into the suitcase, which has enough power to refill an iPhone battery five times over.

"We hadn't originally thought about putting a charger in the bag, but we kept hearing the same thing from potential customers: 'I know there's nothing you can do about this, but the most annoying thing about traveling is that my phone is always dead," Korey says. "So we did something about it."

Away's business model is similar to that of Warby Parker or Casper mattresses, for which Korey has also worked. Like a luxury brand, the company invests in high-quality materials and manufacturers. But since the suitcases are only sold online, there is no retail markup, making them significantly more affordable (between \$225 and \$295, depending on the size).

After raising \$2.5 million in its first seed round, Away officially went into business in time for the 2015 holiday season. With a successful year of sales under their belts, Korey and Rubio plan to branch out into other travel products.

HEBEN NIGATU: JON PREMOSCH / BUZZFEED

"We don't have any more launches finalized," Korey says. "But we definitely have a lot up our sleeves."

Alumni Podcasts Worth a Listen



Another Round

Cohosted by Heben Nigatu '14CC

Heben Nigatu and her cohost Tracy Clayton like to describe Another Round as "happy hour with friends you haven't met yet." Jokes and booze flow freely, but Nigatu and Clayton also tackle serious topics (race and gender are big themes) and welcome A-list guests like Ta-Nehisi Coates and Hillary Clinton.



StartUp

Produced and hosted by Lisa Chow '12JRN, '13BUS

Economics reporter Lisa Chow follows the messy early phases of new companies, including her own: the first season detailed how her boss and cohost, public-radio veteran Alex Blumberg, launched the podcasting company Gimlet Media.



Serial

Produced by Dana Chivvis '09JRN

In 2014, the true-crime podcast *Serial* became a cultural phenomenon, with over eighty million downloads worldwide. The first season investigated the 1999 murder of a high-school student, and the second season reexamined the story of a US soldier who went AWOL and was captured by the Taliban. Dana Chivvis makes regular appearances, often acting as host Sarah Koenig's investigative copilot.



Freakonomics Radio and Tell Me Something I Don't Know

Produced and hosted by Stephen Dubner '90SOA

Inspired by their best-selling book *Freakonomics*, journalist Stephen Dubner and economist Steven Levitt use *Freakonomics Radio* to explore familiar ideas — from dating and parenting to sports and politics — in unexpected ways. Dubner has also recently launched *Tell Me Something I Don't Know*, a quiz-show podcast for the *New York Times*.



Profiles:NYC and Crimetown

Produced by Austin Mitchell '08SEAS

Like an audio version of *Humans of New York, Profiles:NYC* tells one-minute stories of everyday New Yorkers Austin Mitchell meets on the street. Mitchell is also a producer of *Crimetown*, a new series from Gimlet Media about organized crime and corruption in Providence.

NETWORK

Parks and Recreation A sociologist contemplates a human ecosystem

or Erich Goode '66GSAS, Washington Square Park in Greenwich Village, with its polymorphous crowds and carnival spirit, is the ideal petri dish for his abiding fascination: social deviance and control. The seventy-eight-year-old sociologist can often be found there, a Mead notebook in his hand, observing the human pageant.

preach incoherently about God and apples, and people just smile and nod. But at what point does behavior become too eccentric? Where do people draw the line? How do they judge, and what do they do?" Goode gestured at the scene. "How does this" — the pigeon feeders, the pot dealers, the chess sharks, the acrobats, the singers, the drummers, the cops — "all hang together?" tough who considered him a beatnik interloper. After earning his PhD from Columbia, he began perambulating the neighborhood in search of a subject. "I'd ask myself, 'What's the most interesting thing around me?' The answer was drug use."

Goode began interviewing people, and his study led to a book called *The Marijuana Smokers*, published in 1971. That led to an invitation from

"What's interesting to me is that all kinds of people feel welcome here."

"In a setting like this, what do people consider untoward behavior?" Goode said recently from a bench on the west side of the fountain. "Here we have a very tolerant atmosphere, where someone can walk past in a clown costume and no one turns around, or an unkempt, barefoot man can

To Goode's knowledge (and to Google's), no one has made such a study of the 9.75-acre rectangle that on some days feels like the center of the world. Goode has taken on that task, one for which he is especially well suited. He moved to the Village in the mid-1960s and promptly got into fisticuffs with a local Knopf to write a textbook on drug use. That book, *Drugs in American Society*, is now in its ninth edition.

Goode left the city in the 1970s and taught at several East Coast universities. He retired from Stony Brook University on Long Island in 2000 and moved back to New York in 2007. That December,

the city began a six-year landscaping project in Washington Square Park, foiling Goode's wish to study the whole organism. But with the renovations complete, the park's capricious life now lies open to Goode's trained eye. He visits three times a week for two or three hours, and has interviewed sixty people on a number of behaviors and activities: feeding squirrels, playing music, ranting, smoking, drinking, performing, sleeping. "People's evaluations of what is inappropriate tend to center on responsibility toward others whether a behavior will hurt, offend, or intrude on others' rights," Goode said.

The style of law enforcement in the park reflects this ethos. "The police ignore a lot of rule-breaking. Drug dealers cruise right here. Drug dealing is for the most part tolerated or semi-tolerated."

Then there is the category of behavior that Goode calls "performative deviance" people with some shtick or obsession, often in flamboyant garb, who are "letting fly a certain aspect of their personality in a place of maximum tolerance." Some of these people have psychiatric problems, while others are experimenting with their eccentricity.

"What's interesting to me is that all kinds of people feel welcome here," Goode said, as a man dressed in red walked past singing "Row, Row, Row Your Boat" and ringing a gold school bell. "No one feels frozen out. I love the idea of cultural, racial, and sexual variety and tolerance." He closed his notebook. "Tolerance is my lodestone."

- Paul Hond



JOSEPH MICHAEL LOPEZ '11SOA had no undergraduate degree or formal training when he applied to Columbia's MFA program in photography, but he was accepted on the strength of his documentary images of New York street scenes. Now, twenty of his photos, each taken in a different neighborhood — including *South Shore*, *Staten Island* (above) — are on display at the Museum of the City of New York as a part of its Future City Lab exhibit.

8 UNDER 30

Eight alumni were featured in Forbes's annual "30 Under 30," which recognizes six hundred innovators across twenty different industries, from science to social entrepreneurship.

Tsechu Dolma '13BC, '15SIPA Social Entrepreneurship Dolma founded the Mountain Resiliency Project, which addresses poverty and hunger in her native Tibet.



Kendall Tucker '14CC Law & Policy Tucker is the CEO and cofounder of Polis, which is working to



Matthew Lovett-Barron '14GSAS Science Lovett-Barron is a neuroscience researcher at Stanford, where he focuses on how brain cells produce alertness, motivation,

Sabrina-Natasha Habib '16SIPA Social Entrepreneurship Habib is the cofounder of Kidogo, which provides earlychildhood care and education in East Africa's urban slums.

Media Cline's first novel. The Girls. which follows a Charles Mansonlike cult, spent twelve weeks on the New York Times bestseller list.

Lishan Az '12SEAS Gaming Az designed On the Safe Side, a game that helps new students navigate the USC campus, where she is an MFA student.



Xiyin Tang '09CC Law & Policy Tang is an intellectualproperty lawyer

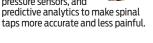
who has repre-

sented Google,



Spotify, and Amazon in copyright and digital-streaming cases. She also teaches at Yale Law School.

Nicole Moskowitz '15SEAS Health Care Moskowitz is the cofounder and CEO of IntuiTap, which uses imaging technology, pressure sensors, and



NETWORK

ASK AN ALUM HOW TO BE A WORLD-CLASS ATHLETE ... AT 78

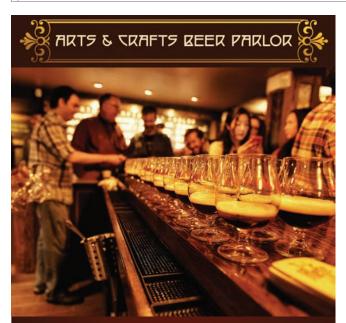
John Weber '65DM, a retired dentist and professor at Cornell Medical College, started running triathlons in his late sixties. Last year, at age seventy-seven, he became an Ironman All World Athlete champion.

COLUMBIA MAGAZINE:

What's an Ironman Triathlon? **JOHN WEBER:** The Ironman is a 2.4-mile swim in open water, a 112-mile bike ride, and then a 26.2-mile run. It's one of the most difficult one-day endurance challenges in the world.

CM: How did you get started with the Ironman? **JW:** I began running marathons first. My children had grown up and I was single again at sixty and thinking about retirement. My two oldest were living in Boston and training for the marathon, and they convinced me to start running, too. I thought I was too old, but figured that I'd give it a try.

I wanted to get in better shape — for one thing, I was back on the dating market for the first time in a long time — but I quickly found that after a good



Happy Hour daily until 7pm. 10% discount for all Columbia students, staff, and alumni.

South Harlem (SoHa) 1135 Amsterdam Avenue *corner of 116th Street* 917.675.6835 Greenwich Village 26 West 8th Street 646.678.5263 10K run, I just felt better. I ended up doing twenty-five marathons before someone suggested a triathlon. The addiction grew from there.

CM: Tell us about your training schedule. JW: I'm always training. It's too difficult to come back if you stop. But my season really starts with the world championship in Kona, Hawaii. That's in October, but I go out to Hawaii around August 15 to train. When I'm there, I'll do around one hundred miles on the bike twice a week, one 20-mile run, one 15-mile run, and then I'll swim the Ironman distance twice every week. I just do that in rotation. Come race time, I know every pimple on that course.

CM: Are you on a special diet? **JW:** I'm not a fanatic. There are some people who live on dried chicken breast and avocado. That's not me. My diet is a mixture of most anything, but nothing in excess. I have ice cream once a week.

CM: What are your goals now?

JW: I won a world championship at seventy-five and my next chance of winning one will be when I age up to the eighty-toeighty-five age group in



2018. Right now, I'm in the seventy-five-to-seventy-nine group, competing against younger athletes. People think that a few years wouldn't matter in your seventies, but they seem to!

But really, I'm not so concerned with medals. I'm just happy to be able to continue to do what I do and enjoy the company of my fellow athletes — wherever they are in the world.

CM: If medals don't motivate you, what does? **JW:** For me, a triathlon isn't just a sport; it's a lifestyle. I'm seventy-eight years old, and when I go for my annual physical, my GP shakes his head and says, "This is really just a well-baby exam." That feels good.

 $- {\it Jessica \, Sebor}$

Strong Opinions

resident Donald Trump has nominated Neil Gorsuch '88CC, a federal appellate judge from Colorado, to the US Supreme Court.

At Columbia, Gorsuch was a weekly columnist for the *Spectator* and a founding editor of the *Federalist*. This alternative student newspaper. "in the

tradition of Hamilton and Jay," was originally called the *Federalist Paper* and was intended to offer a broad spectrum of viewpoints on controversial issues. At both publications, Gorsuch exhibited traits for which he would later be famous: intellectual rigor, excellent writing, and conservative values. On a largely liberal

campus, Gorsuch's right-leaning tendencies stood out and had a lasting influence; as a 1989 *Spectator* article noted, "The key focal point of contemporary conservatism at Columbia was the establishment of the *Federalist Paper* in 1986."

Gorsuch graduated from Columbia in just three years and then attended Harvard Law School, where he was in the same class as **Barack Obama** '83CC. Gorsuch clerked for Supreme Court justices Byron White and Anthony Kennedy, and he later received a DPhil from the University of Oxford, where he conducted research on the ethical and legal implications of assisted suicide and euthanasia. Gorsuch was nominated to his current seat on the US Court of Appeals for

the Tenth Circuit by President George W. Bush in 2006.

Like Justice Antonin Scalia, whose seat has been vacant since his death last February, Gorsuch adheres to a strict interpretation of the Constitution. He is a proponent of originalism (the idea that the Constitution should be interpreted as it was perceived when it was enacted)



and textualism (the idea that laws should be interpreted literally, without considering legislative history).

Gorsuch is best known for his opinions in the Hobby Lobby and Little Sisters of the Poor cases, which challenged the contraceptive mandate of the Affordable Care Act. In both cases. which ultimately went to the Supreme Court, Gorsuch took the side of the plaintiffs on the grounds of religious freedom. As he wrote in his concurrence to the *Hobby Lobby* decision, the law "doesn't just apply to protect popular religious beliefs: it does perhaps its most important work in protecting unpopular religious beliefs, vindicating this nation's long-held aspiration to serve as a refuge of religious tolerance."

NEWSMAKERS

• **Rev. Thomas Worcester '77CC** was named president of Regis College, a Jesuit theological school affiliated with the University of Toronto. Worcester, who will take his new post in August, is currently a professor of history at the College of the Holy Cross, where he specializes in religion and politics during the Reformation.

• *Balcony*, a short film by **Toby Fell-Holden** '**13SOA**, won the highest honor at the Iris Prize Festival, the world's largest LGBTQ short-film festival, in Cardiff, Wales. It debuted in 2015 at the BFI London Film Festival, where it also won the top prize. *Balcony* tells the story of a girl in a racially divided neighborhood who falls for an Afghan refugee.

• **Cyrus Habib '03CC** was inaugurated as lieutenant governor of Washington State, becoming the highest-ranking Iranian-American elected official. Habib, who has been blind since age eight, was a Rhodes Scholar in English literature and also received a law degree from Yale. He has served in the Washington State House of Representatives and the Washington State Senate.

• Joanne Kwong '97CC became president of Pearl River Mart, New York's iconic Asianimports store. After nearly forty-five years in business, Pearl River closed its SoHo location in early 2016. Kwong, who is the daughter-in-law of the original owners, set up a pop-up version in Tribeca in November and plans to officially reopen with a permanent store.

• Three Columbians won creative-writing fellowships from the National Endowment for the Arts, which gives financial support to promising artists. **Camille Rankine '09SOA** and **Diana Marie Delgado '08SOA**, graduates of Columbia's MFA program, and **Morgan Parker 'IOCC** were all recognized for their poetry.

New England Patriots owner Robert Kraft
'63CC got a fifth Super Bowl ring after his team's comeback win over the Atlanta Falcons. Kraft now has more Super Bowl wins than any other NFL team owner in history. Kraft also owns the New England Revolution, a Major League Soccer team, as well as Gillette Stadium, in Foxborough, Massachusetts, where both the Patriots and the Revolution play. Kraft played running back and safety on the Columbia football team, and the Columbia football field is named after him.

COLUMBIA alumni

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BULLETIN

UNIVERSITY NEWS AND VIEWS

PRESIDENT BOLLINGER AND CAMPUS COMMUNITY SPEAK OUT AGAINST TRUMP'S STANCE ON IMMIGRATION

E arlier this semester, Columbia President Lee C. Bollinger joined the leaders of forty-seven colleges and universities from across the US in signing a letter opposing President Donald Trump's executive order to close America's borders to vations and scholarship have enhanced American learning, added to our prosperity, and enriched our culture."

On the Morningside campus, students and faculty have organized protests against Trump's stance on immigration. Just after the November ban in a strongly worded e-mail to faculty, students, and staff.

"It is important to remind ourselves that the United States has not, except in episodes of national shame, excluded individuals from elsewhere in the world



More than five hundred people gathered in protest at Low Library on January 31. immigrants from seven Muslim-majority countries and to refugees from throughout the world.

"If left in place, the order threatens both American higher education and the defining principles of our country," the letter reads. "American higher education has benefited tremendously from this country's long history of embracing immigrants from around the world. Their innoelection, hundreds gathered to voice opposition to Trump's vow to deport millions of "Dreamers" — undocumented immigrants who have been in the US since childhood and are permitted to study and work here under an executive order signed by President Barack Obama '83CC in 2014. Another, larger protest was held after Trump instituted the restrictions on travel. Bollinger also addressed the because of their religious or political beliefs," he wrote. "We have learned that generalized fears of threats to our security do not justify exceptions to our founding ideals. There are many powerful and self-evident reasons not to abandon these core values, but among them is the fact that invidious discrimination often adds fuel to deeply harmful stereotypes and hostility affecting our own citizens."

COLLABORATORY COURSES DEMYSTIFY BIG DATA FOR NON-SPECIALISTS

The availability of massive amounts of electronic data is transforming nearly every academic discipline and professional field today.

To prepare students to succeed in this data-rich world, Columbia has introduced a series of courses that combine instruction in disciplines such as business, journalism, public policy, history, and architecture with training in computer-based analytic techniques that are now commonly used in these fields. The eleven new courses, which launched this academic year, are co-taught by Columbia data scientists and faculty experts in each discipline.

"The goal is to give students the knowledge they need to be discriminating consumers and purveyors of statistical data and to possibly work together with data scientists," says Patricia Culligan, a professor of civil engineering and associate director of the Columbia Data Science Institute who oversaw the formation of the new courses.

The courses were created with support from the Collaboratory@Columbia, a joint initiative of the Columbia Data Science Institute and Columbia Entrepreneurship that promotes digital literacy among students. Last year, the Collaboratory invited faculty from across the University to submit proposals for courses that would teach data-analysis techniques to a wide range of students; seven faculty teams were awarded fellowships to cover the costs of designing one or more new interdisciplinary courses. The initiative will support the development of at least twelve more courses over the next two years.

DREW ANGERER / GETTY IMAGES

BOT TOM:

OHN PINDERHUGHES;

0P.

"The Collaboratory is operating in a grassroots manner by engaging faculty to incorporate data and computer-science skills into mainstream pedagogy," says Richard E. Witten '75CC, a Uni-



versity Trustee emeritus who directs Columbia Entrepreneurship and who led the creation of the Collaboratory. "This is generating a lot of radically fresh ideas."

In a new course taught by publicpolicy expert Gregory Falco '12SPS and computer scientist Adam Cannon, graduate students of public affairs and related subjects are learning to design more effective energy and environmental policies by using computer programs that can model their potential impact. And in a course taught by historian Matthew Jones and physicist Chris Wiggins '93CC, undergraduate humanities and engineering majors are getting lessons in operating computational tools that scientists use to predict everything from election results to disease outbreaks.

"To be an informed citizen in the twenty-first century, you really need to be able to distinguish between crummy statistics and those that are truly explanatory or predictive," says Jones. "By bringing students behind the scenes and showing them how different types of statistics get generated, we're helping them make those determinations."

Witten points out that the new courses supplement the University's existing portfolio of interdisciplinary data-science offerings; more technically focused data-science courses are available to Columbia students enrolled in degree and certificate programs that focus specifically on training journalists, economists, social scientists, and others in big-data techniques. But he suspects that more and more Columbia students will likely seek out at least some training in big-data analysis in the years ahead.

"It's simply going to be seen as a part of a well-rounded education," he says.

JACOB LEW JOINS SIPA AS VISITING PROFESSOR

Jones (left)

and Chris

Wiggins

co-teach

analytics

course for

students.

humanities

a data-

Jacob Lew, the outgoing US treasury secretary, has joined Columbia's School of International and Public Affairs as a visiting professor. An expert on international economics and fiscal and trade policy, Lew will teach graduate students and work with faculty members from across the University on a range of public-policy issues.

"SIPA is at the forefront of tackling critical policy challenges facing the global community," says Lew. "I am delighted to have the opportunity to share my experience with talented young people who aspire to engage in the world of public policy and international affairs."

Before serving as treasury secretary, Lew was White



House chief of staff and director of the Office of Management and Budget, both under President Barack Obama '83CC. Previously, he was chief operating officer of Citigroup and executive vice president and chief operating officer of New York University, where he was also a professor of public administration.

BULLETIN

MENDELSON FAMILY GIFT SUPPORTS UNDERGRADUATE BUSINESS TRAINING

The University recently announced the establishment of the Mendelson Center for Undergraduate Business Initiatives, a joint program of Columbia College and Columbia Business School. The center was established with a \$10 million gift from the Mendelson family, whose relationship with Columbia spans four generations.

Through the Mendelson Center, Columbia undergraduates will be able to enroll in specially designed courses with business-school faculty that combine elements of business and liberal-arts education — for example, showing the roots of finance in the principles of economics, and the way marketing works upon psychology.

"With this gift, the Mendelsons have made an enduring contribution to Columbia, creating a dedicated home for undergraduates interested in studying business," says President Lee C. Bollinger. "By bringing together Columbia College and our business school in this novel shared initiative, the Mendelson family's generosity and commitment will benefit students for generations to come."

The gift was made by Laurans "Larry" A. Mendelson '60CC, '61BUS and his wife Arlene; Eric Mendelson '87CC, '89BUS and his wife Kimberly; and Victor Mendelson '89CC and his wife Lisa. Larry, the chairman of the board of the aerospace and electronics company HEICO Corporation, was a University Trustee from 1995 to 2001; his sons, Eric and Victor, co-presidents of HEICO, currently serve on the Columbia College Board of Visitors.



and Victor

Mendelson

For the Mendelsons, attending Columbia is a family tradition dating back to Samuel Mendelson, an immigrant from Lithuania who graduated from the College in 1906. The family's prior philanthropy at Columbia includes the establishment of the Samuel and Blanche Mendelson Memorial Scholarship Fund and the endowment of two professorships: the Mendelson Professorship in Economics and the Mendelson Family Professorship in American Studies.

"My time at Columbia College and Columbia Business School was transformative," says Larry Mendelson. "There is nothing better than participating in intellectual exploration while gaining practical ability in business. I hope the Mendelson Center will provide Columbia undergraduates with opportunities like the ones I had." 5 More Reasons to Celebrate Columbia Athletics



The men's soccer team just won its first Ivy League championship since 1993, sharing the title with Dartmouth.

2 Javier Loya '91CC was honored by the Ivy Football Association in January. Loya, who played defensive end and outside linebacker for the Lions, lettered in all three of his varsity seasons.



3 Both the men's and women's fencing programs took the top spots in the first College Fencing 360 poll of the 2016–2017 season. The men's team has now been ranked no. 1 in seven straight polls.

4 In mid-January, the men's squash team ranked no. 2 in the nation, according to the Dunlop Men's College Squash Association poll. This marks the highest-ever ranking in program history.



5 The Columbia women's basketball team played and won the longest game in Ivy League history. The game went into four overtimes before Columbia prevailed over Dartmouth, 91–88.

LIBRARY ACQUIRES RADIO PERSONALITY BOB FASS'S ARCHIVE

olumbia's Rare Book and Manuscript Library recently purchased the archive of influential talk-radio host Bob Fass, whose program on New York City's WBAI in the 1960s and '70s, Radio Unnameable, routinely featured candid, hours-long conversations with counterculture icons such as Allen Ginsberg '48CC, Bob Dylan, Abbie Hoffman, Timothy Leary, and Hunter S. Thompson. The archive, which consists of some six hundred thousand minutes of broadcasts along with photographs



of radio sessions and Fass's personal correspondence, will soon be digitized and made available to library patrons.

"These were not structured interviews so much as casual hangouts that placed heroes of the counterculture in direct contact with listeners and one another," says Sean M. Quimby, the director of the Rare Book and Manuscript Library. "The archive is a vast untapped resource that will support term papers, dissertations, and books for years to come."

CHILEAN PRESIDENT VISITS COLUMBIA RESEARCH SHIP



Chilean president Michelle Bachelet recently toured the research vessel *Marcus G. Langseth*, which is operated by Columbia's Lamont-Doherty Earth Observatory, as it docked in the port city of Valparaíso. The ship was on a months-long voyage to assess the risk of earthquakes and tsunamis along the western coast of South America. Bachelet, a physician who in 2012 gave the Commencement address at Columbia's Mailman School of Public Health,

inspected the ship's hightech control room and met with researchers to better understand its mission. She learned about how teams of American and Chilean scientists aboard the ship are studying the vibrations of an underwater continental shelf in hopes of predicting its future movements.

"This project represents a milestone in collaboration between scientists in our country and those of Columbia University," said Karen Poniachik '90SIPA, a Chilean journalist and former government minister who directs the Columbia Global Center in Santiago and who took part in the tour. "In addition to bringing us together to face the threats of earthquakes and tsunamis, it creates ties of medium- and long-term academic cooperation, which will result in more programs, exchanges, and joint research."

BULLETIN

MARK A. CANE WINS VETLESEN PRIZE

A. Cane, an oceanographer at Columbia's Lamont-Doherty Earth Observatory, and S. George Philander, an oceanographer at Princeton University, have jointly received the 2017 Vetlesen Prize, which is widely regarded as the earth-sciences equivalent of the Nobel Prize. They will share a \$250,000 award in recognition of their insights into the complex forces that drive the weather cycle known as El Niño.

When Cane and Philander were starting out as researchers in the 1970s, most scientists regarded El Niño as a localized weather system

that periodically intensified summer rains in Peru. But Cane and Philander, working separately, showed that El Niño is just one manifestation of a much larger pattern of shifting winds and water currents in the Pacific Ocean that affects weather around the world. Their insights have since enabled scientists to forecast swings in air temperature and precipitation in locales as far apart as Africa, Brazil, and the United States; institutions worldwide now monitor El Niño to help prepare for floods or droughts.



Mark A. Cane

"This information can also be very valuable as we move forward and try to figure out what to do about human-

induced global warming, which is, of course, the major problem the whole world is facing," says Cane.

The Vetlesen Prize, established in 1959 by the G. Unger Vetlesen Foundation, is administered by the Lamont-Doherty Earth Observatory, which convenes a committee from both its own ranks and those of other major institutions to judge nominations.

Cane and Philander will receive this year's prize in April in a ceremony at Columbia.

ANTHROPOLOGY STUDENTS CURATE MUSEUM EXHIBITS

Anthropology graduate students have a new platform for showcasing their research and curatorial talents: an exhibit case in New York City's American Museum of Natural History. "It is a win for

both institutions," said David Harvey, the museum's senior vice president for exhibition. "The museum gets a great exhibit case, while the students are exposed to the roles of curators, exhibition designers, collection managers, and conservation professionals through a real-life project."

Columbia and the American Museum of Natural History jointly offer a one-year master's degree in museum anthropology, with Columbia faculty teaching the first semester and museum staff the second. In the past, students in the program have shown their work in the Low Library Rotunda. Moving forward, the plan is for each cohort of students to create a new exhibit case in a permanent hall of the museum.



The first case is in a hall named for the cultural anthropologist Margaret Mead '28GSAS, who taught at Columbia for several decades. The hall is devoted to Pacific Islanders' history and culture. In designing the exhibit, Columbia students consulted with New York–based Pacific Islanders, who donated several artifacts. The items on display include a feathered belt, a carved spirit figure, and a navigation chart made of wood, shells, string, and paper.

"The exhibition project is important because it's something you cannot easily teach in a classroom," says Columbia anthropologist Nan A. Rothschild '62GSAS, who started the museum anthropology master's program in 2003.

- Gary Shapiro '93LAW

Artifacts of Pacific Islander culture at a studentorganized exhibit.

ABOUZAID RECEIVES MATH HONOR

ohammed Abouzaid, a Columbia mathematics professor, has received the New Horizons in Mathematics Prize, a prestigious \$100,000 award given to early-career physicists and mathematicians. Abouzaid was recognized for his groundbreaking research in topology, or the study of the shape of space.

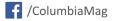
"Certain patterns just exist, and we try to understand them for their intrinsic value," says Abouzaid, who joined Columbia in 2012. "The great range of modern-day applications of mathematics to real-world problems has grown out of centuries of such inquiry by men and women who pursued the mysteries that arise in mathematics and studied them for their aesthetic beauty. I hope that future generations will view the work I and my colleagues are doing in a similar light."



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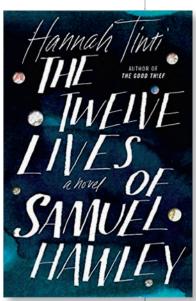
magazine.columbia.edu

BOOKS

The Twelve Lives of Samuel Hawley

By Hannah Tinti (Dial Press)

here's a summer tradition in the fictional fishing village of Olympus, Massachusetts, where Columbia writing professor Hannah Tinti sets her second novel, *The Twelve Lives of Samuel Hawley*. A



Her writing is vividly cinematic, in the tradition of Quentin Tarantino or the Coen brothers. flag is hung at the end of a seventyfive-foot wooden mast, which is suspended from a pier, and the first man to climb out over the water and capture the flag wins a year's worth of free drinks - and, more importantly, the town's respect. But the mast is covered in grease, making this a nearly impossible task. Then one day a strange loner named Samuel Hawley moves to

Olympus with his teenage daughter, Loo. With the entire town watching, Hawley scales the pole and gets the flag. The crowd cheers, but no one is prepared for what they see when Hawley takes off his shirt: the round, knotty scars — at least six — from bullet holes. Who is this new neighbor? they wonder. What kind of life has he led?

The only one not gawking is Loo, though in actuality, she doesn't know much about her father's past either. The pair spent the first twelve years of her life on the run, exchanging one dingy hotel room for another. The only constants were an arsenal of guns, an old bearskin rug, and a box with a random assortment of her late mother's things. Every time they moved, Hawley would pack up the box and then painstakingly reassemble the items into a shrine in the bathroom.

When Hawley suddenly decides that it's time for them to settle down, he picks Olympus, where Loo's mother grew up. Aside from the bizarre bathroom artifacts, Loo knows little about her mother. Lily, who drowned mysteriously just before Loo's first birthday. But in Olympus, Loo is surrounded by people who remember Lily, including a grandmother who seems to want nothing to do with Loo and her father. As Loo's questions become more pressing, Tinti toggles back to Hawley's deeply violent past, telling the story of each bullet hole in a series of gruesome but gorgeously drawn flashbacks.

Tinti, who cofounded the inventive literary journal One Story, is a master of the macabre. Her first novel. The Good Thief, followed a one-armed boy recruited by a band of murderous robbers in nineteenth-century New England, and the same gothic undertones permeate this novel, though it is set in the present day. Her writing is vividly cinematic, in the tradition of Quentin Tarantino or the Coen brothers, and in her nuanced voice, violence feels haunting or lurid rather than thrilling. In one scene,

Hawley is speeding away from Whidbey Island, a windswept, tree-covered rock off the coast of Seattle, when his boat is nearly capsized by a giant gray whale: "He was staring over the port side, at a widening plane of flatness among the waves. And from this open place, the whale appeared rising like a dark and crusted slice of doom."

The book's violence is cut by the surprising tenderness with which Tinti treats her characters. We come to find how easily Hawley can maim or kill, and yet the book is ripe with his grief and regret. It is heartbreaking to watch him carefully unwrap his dead wife's used shampoo bottle, desperately trying to preserve her scent. Loo, too, seems to be following in her father's path - reluctant to make friends and prone to lashing out: "There was a taste that filled Loo's mouth whenever she was getting ready to hit someone. Tangy, like rust. She could feel it in the glands on either side of her jaw." Hawley isn't a traditional father when Lou is caught stealing a car, for example, his response is to teach her how to do it better — but he does want. above all, to spare his daughter the pain that has followed him through life. It is that fervent, familiar desire that gives the book depth, making it more than a gothic fable or a heart-pounding thriller. At its core, it's a story about a father and his daughter. - Rebecca Shapiro

EXCERPT A Mother's Tale

By Phillip Lopate '64CC The essayist and director of Columbia's nonfiction writing program reflects on his mother, based on interviews he did with her thirty years ago.

Was she a good mother? Yes, I think so: "good enough," to use the practical terminology of English psychologist D. W.

Winnicott, who counseled that a mother didn't have to be perfect, she could be depressed or angry, but if she somehow was able to shepherd her children into a reasonably intact adulthood without their turning into serial killers or going insane, that was sufficient. Neuroses are a given: as Freud maintained, we're all neurotic. But that doesn't mean that you should keep blaming your parents for fucking you up (*pace* Philip Larkin). I've never been happy for long, but I've managed to stay engrossed, even creative, and to the degree I've lived a productive life, I owe an enormous debt to my mother and her love for us as children, which was never in dispute.

The Body Builders: Inside the Science of the Engineered Human By Adam Piore '94JRN (Ecco)

echnological interventions that can transform the body and mind beyond its "natural" state have in recent years become not just feasible but commonplace. Bioengineering is largely being used to help patients suffering from disease or disfigurement — for example, bionic prosthetic legs for amputees — but the possibilities

are endless, and they bring with them a complex set of ethical questions. As Adam Piore '94JRN puts it in his enthralling

new book, *The Body Build*ers: Inside the Science of the Engineered Human, "Why not build better versions of ourselves? Why not enhance,

THE BODY BUILDERS NASIDE THE SCIENCE OF THE SCIENCE

ADAM PIORE

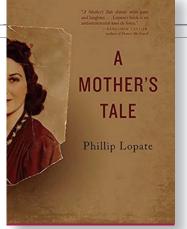
Piore, a journalist who has written about medicine and technology for

Newsweek, Popular Science, and MIT Technology Review, blends deft reporting and fluid storytelling to explore the science behind this "quiet revolution," which, he says, is moving faster than most had anticipated. In three sections covering different types of bioengineering, Piore profiles both pioneering researchers and some of the patients who have been helped by this technology.

In the book's first part, "Moving," Piore highlights the techniques that scientists use to restore mobility, from ultrasophisticated prosthetics to the regeneration of amputated limbs. "By hacking into the body itself and rewriting or redirecting the body's cellular instruction manual," he writes, "scientists are coercing the body to rebuild or transform."

Part two of Piore's book. "Sensing," covers new avenues of research that challenge long-held assumptions about neuroplasticity. Piore meets a woman who has recaptured her ability to "see," through a computer program that converts pixels of visual images into patterns of sound. This remarkable circumvention of her eyeballs suggests that "for decades scientists have perhaps missed the point . . . To restore 'sight' or sound, all engineers need to do is create a device that can translate sensory information into signals that can be conveyed into the brain in a consistent manner." The brain can then rewire itself to form new processing pathways.

New insights into the brain's circuitry also reveal mechanisms underlying some of the more ineffable aspects of being human, such as intelligence and creativity. In part three,



BOOKS

"Thinking," Piore meets with researchers developing ways to boost brainpower with a pill, or to correct rogue neurons by implanting electrodes deep in the brain. As with genetic engineering, the potential to cure mental illness and alter behavior by changing the brain's biochemistry is staggering; but the possibility that the technique might be manipulated for more nefarious means looms large.

"Why not build better versions of ourselves? Why not enhance, augment, transcend?"

Piore is clearly in awe of all these advances in human engineering, but he remains acutely aware of the larger ethical issues they provoke. He presents the crucial questions in every chapter - for example, should we be able to use this technology for self-enhancements like superhuman strength or musical talent? – but largely lets readers draw their own conclusions about where the lines should be drawn. Despite these ethical caveats, Piore presents his material with contagious enthusiasm. Reading the book, it's hard not to feel hopeful that science may soon be able to profoundly help patients with a range of debilitating conditions. That we may someday have the option to ascend to new mental and physical heights seems inevitable, and Piore provides a welcome guide to this future.

- Angela Leroux-Lindsey

The Perpetual Now By Michael D. Lemonick '83JRN (Doubleday)

onni Sue Johnson doesn't remember her wedding day. She doesn't know where she grew up or whether she went to college, and she wouldn't recognize a lifelong friend if she saw her on the street. She has almost no memories of the past and is virtually incapable of making new ones. In fact, if you met her, she'd cheerfully reintroduce herself every ten or fifteen minutes.

Since 2007, Johnson — previously a successful illustrator known for her *New Yorker* covers — has been severely amnesic, a condition triggered by a violent bout of viral encephalitis. Amnesia is used frequently as a plot device in novels and films, but long-term, real-life cases are rare. In *The Perpetual Now, Scientific American* opinion editor Michael D. Lemonick '83JRN interweaves Johnson's tragic personal story with a light summary of the scientific community's decades-long investigation into the neuroscience of memory.

Lemonick, who has casually known Johnson's family since high school, writes affect-

ingly about

her personal-

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has remained

her. Remark-

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the significant

obstacles that

presents, she

optimistic,

even joyful.

To Johnson,

everyone is a

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FHE Perpetual NOW

MICHAEL D. LEMONICK

A Story of Amnesia, Memory, and Love

stranger, which seems like a terrifying way to navigate life. But Johnson copes by treating everyone like a friend: "She's having a blast, and she wants you to join her," Lemonick writes.

For neuroscientists, Johnson is a rare and important case. Lemonick helps the reader understand this by providing a general overview of the relevant researchers of the past century (William James, Sigmund Freud, Santiago Ramón y Cajal, Columbia professor Eric Kandel). He also profiles landmark patients — mainly Henry Molaison (1926–2008), or "H. M.," as he was known during his lifetime, whose brain damage "would ultimately do more to answer [questions about memory] than any other single event in the history of neuroscience."

In the cases of both H. M. and Johnson, the area that received the most damage was the hippocampus: "brainswithin-a-brain" that "help us transform the chaotic jumble of sensory impressions that pour into our brains at every minute into a comprehensible whole." In other words, the hippocampus helps translate external cues such as sights, smells, thoughts, or feelings into memories, and it holds a "backlog of partially processed memories." Before H. M., scientists knew next to nothing about the hippocampus (it was thought only to regulate smell). Now, Johnson's case "promised to answer a whole new set of deeper, more complex questions."

Researchers at Johns Hopkins, Princeton, and elsewhere have focused their attention on Johnson's three main loves in life: art, music, and aviation. In these areas, Johnson has shown the most progress in recapturing her skills, even if in altered forms. She can still play her viola and improves each time, even without remembering that she has played before. Her impulse to create art has returned and "showed at least some elements of her pre-encephalitis work." She can also describe in detail not only the mechanics of piloting a plane but the exhilarating feeling that it once gave her. In other words, she has retained more memories in areas where she had unusual talent or knowledge, a finding that scientists find especially interesting.

Lemonick's conversational storytelling is reminiscent of Oliver Sacks, who once visited with Johnson but decided not to write about her. The author poignantly captures Johnson's rich internal life, as well as the labors of her sister Aline. who has dedicated thousands of hours to making her sister's life as structured and normal as possible. He looks optimistically at the role that Johnson's condition could continue to play in helping scientists "understand more fully how the brain works" and thus "contribute in at least a small way to helping people with memory loss."

But there's also something metaphysical about Lemonick's writing; the narrative brims with the sense that neuroscience alone cannot explain what it means to be human. It may not be the most popular sentiment in our data-driven society, but it's a central motif in the author's story – and, more importantly, Johnson's. "Memories can be so vivid," Lemonick writes, "that the neuroscientific explanation for what they actually are merely a discharge of energy, the synchronous firing of brain cells in patterns laid down minutes or hours or decades in the past - threatens to trivialize their power as we experience them, to downplay the essential role they play in our lives."

- Eric Liebetrau

READING LIST New and noteworthy releases

SELECTION DAY

by Aravind Adiga '97CC For brothers Manju and Radha, there's only one path out of a Mumbai slum: becoming the best and second-best cricket players in India. Or at least that's what their obsessive, tvrannical father wants them to believe. Their future will be determined on Selection Day, when judges pick the city's next cricket stars; but Manju has other hopes and dreams. This is Adiga's fourth book and the best since his debut. The White Tiger, which won the Man Booker Prize.

A WOMAN LOOKING AT MEN LOOKING AT WOMEN

by Siri Hustvedt '86GSAS In her latest collection of essays, Hustvedt calls herself "a perpetual outsider who looks in on several disciplines." Here, those disciplines are, loosely, art and perception, gender and sex, and memory and psychology. The first section considers the works of specific artists (Picasso, Mapplethorpe, et al.), while the second and third sections deal with more metaphysical questions (what is a person? a self?).

THE UNNATURAL WORLD

by David Biello 'O4JRN Biello, an environmental journalist and the host of the PBS documentary series *Beyond the Light Switch*, argues that we already have the money and technology THE ACTIVIST DIRECTOR COUNSESSED ACCOUNTING AT MEN LOOKING AT WOMEN SIRI HUSTVEDT FINAL SOLUTION ACCOUNTION COUNSESSED COUNTION C

to make profound environmental change; what we need is large-scale motivation. With a defiantly hopeful tone, he profiles some of the most effective change-makers, from a scientist looking to fertilize the oceans to a bureaucrat in China working tirelessly to clean up his city.

WILD GIRLS by Erica Abeel '69GSAS When Julia, Audrey, and Brett meet at the liberal Foxleigh College in the 1950s, they want to avoid the fate of many of their classmates — marrying well and having babies. Instead, they forge their own paths, through the art and literary scenes of New York and Paris. It's a fun and empowering read, especially for fans of Beat culture.

FINAL SOLUTION by David Cesarani '81GSAS When legendary British historian and Holocaust expert David Cesarani died in 2015, he left two finished manuscripts to be published posthumously: a biography of Benjamin Disraeli and *Final Solution*, a controversial look at the fate of European Jews between 1933 and 1949. Using decades of research, as well as newly available Soviet archives, Cesarani argues that persecution of the Jews was not inevitable. Rather, it unfolded incrementally and largely at the local level. Cesarani's analysis is insightful and harrowing — a fitting end to a storied career.

THE ACTIVIST DIRECTOR

by Ira M. Millstein '47SEAS, '49LAW Attorney Ira Millstein – also an adjunct professor at Columbia's law and business schools has spent the last fifty years advising companies, nonprofits, and governments on how to best run their organizations. His bottom line? That the biggest corporate meltdowns are caused by passive boards who favor short-term prosperity over long-term growth. He takes readers through disasters like the Con Ed blackout of 1977 and successes like the GM turnaround of the 1990s to offer concrete advice on boardroom best practices.

62 COLUMBIA SPRING 2017

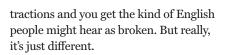
BOOKTALK

Black English?

don't see it that way.

English in Black and White

Linguist John McWhorter, an associate professor of English and comparative literature at Columbia, is the author of nineteen books, many exploring issues of language and culture. In his latest, *Talking Back, Talking Black*, he explains the history and significance of Black English.



CM: You say in the book that Black English is a "social dialect." **JM:** Yes, Black people use it when they're comfortable with each other. They can slide in and out of it depending on the situation. But that is not what the book is about. I want to get across something much more specific, which is that linguistically there is nothing unsophisticated or broken about this dialect.

CM: But it drives some people crazy when they hear the word *aks* used instead of *ask*.

JM: *Aks* and *ask* are both from Britain. The fact that *ask* became standard is just an accident. Black people say *aks* because slaves worked on plantations with people who said *aks*, that's all.

CM: Is this the way languages evolve? **JM:** This is worldwide linguistic reality. When humans have to pick up a language quickly, typically their version is streamlined. Black English is a subtraction of Standard English, and Standard English is a subtraction of Old English to an even greater degree. If an Old English speaker heard modern Standard English, they would think it barbaric and ungrammatical.

CM: The subtitle of your book calls Black English "America's lingua franca." What do you mean by that? JM: I mean that if you walk across the Columbia campus and listen to any group of white men talking casually, most of them will sound slightly "Blacker" than their fathers did at their age. That's because there are certain aspects of Black English, such as cadence, syntax, and use of slang, that have seeped into the millennials' speech repertoire. The culture of hip-hop has a lot to do with it. Black English suggests authenticity. It has also been said that it's becoming a marker of masculinity. But it's not as if a guy just decides to talk like Jay Z. None of this is conscious.

CM: Has Black English inflected the way women talk?

JM: Yes, but men tend to embrace vernacular forms more than women. So it's more pronounced in men.

CM: You say words are making the jump from Black usage to mainstream usage. Can the N-word make the jump? **JM:** There are two N-words. One is *niggah*, which Black men use to mean "buddy." The other, *nigger*, is the slur. They are different words with different sound patterns. I understand why white guys might want to call each other *niggah*, but the truth is that the N-word is loaded. There are some very good reasons why it's going to be hard for Black people to listen to that word come out of a white person's mouth. We are just going to have to treat it as taboo.

CM: So, millennials think Black English is cool. Is this a good thing? **JM:** Some people might say this is an example of cultural appropriation, but I don't agree. It's an indicator of acceptance. Racism persists in other aspects of American life, but this is evidence of a browning of our culture. People are converging linguistically, and I consider that an interesting and positive development. *— Sally Lee*

MEL MARCELO



John McWhorter: It's a dialect that is

English, but it has different expressions

differences are mistakes. They see Black

English as broken English. But linguists

CM: How did Black English develop? **JM:** When slaves were brought to Amer-

ica, they learned English from people

from Ireland or northern England who

worked on the plantations and spoke in

regional dialects. Adults don't usually

learn languages as well as children, so

they simplified those dialects. When

to shave off any unnecessary parts of

speech. The verb "to be," for example,

is complicated because it has so many

forms. But you can get your meaning

sister" clearly means "she's my sister."

across without using it. Saying "she my

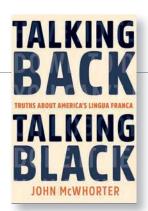
people learn a language, they tend

spoken casually between most Black

and its own complex set of rules and

grammar. Most people assume those

Americans. It's similar to Standard



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REAL ESTATE

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WATER MILL, HAMPTONS, NY: Well-known-architectdesigned Hamptons (Water Mill) home. 2,685 sq. ft., 3BR, den, 2.5BA, .92 partially wooded acres, pool, gardens. \$1,125,000. jpeterson@corcoran.com, www.corcoran.com/hamptons/Listings /Display/3788513#WebID=4428.

VACATION RENTALS

NARRAGANSETT, RI: Jerusalem beach house. Steps to ocean. Spectacular views from rooftop deck. \$2,000/week in July, and for sale by owner. \$699,000. 212-749-1268.

ROME: Spacious, stylish, renovated apartment near St. John Lateran. Two double bedrooms, two baths, Wi-Fi, elevator. \$850/week. lm603@columbia.edu, 212-867-0489. www.casacleme.com.

TUSCANY: Gorgeous apartment in lovely hilltop village of Casole d'Elsa near Siena. 2BR, 1BA, sleeps 4–6. Beautifully appointed. Wi-Fi. Large eat-in kitchen, private garden overlooks 11th-century church. \$650–750/week. Columbia alum owner Lyn '90PH: 404-274-8287, lyn.finelli@gmail.com, or see photos and details at www.imagesoftuscany.com.

BOOKS

NEW BOOK BY DR. ERIC E. CLARKE:

Living in America: Hilarious and Provocative Tales of a Foreign Student. A must-read for current students, prospective students, and their parents, or just a fun read. Amazon.com: paperback \$12.95, electronic version \$9.99. Feedback: clarkes83@hotmail.com.

PERSONALS

Vibrant, pretty Black woman. Psychotherapist. Committed to social justice. Lover of jazz, dancing, biking. Seeks loyal man 60+ with heart for loving relationship. rvrsidedrv@gmail.com.

MATCHMAKER: NYC matchmaker looking for eligible bachelors for attractive women clientele. Complimentary membership offer. Contact 212-877-5151, fay@meaningfulconnections.com.

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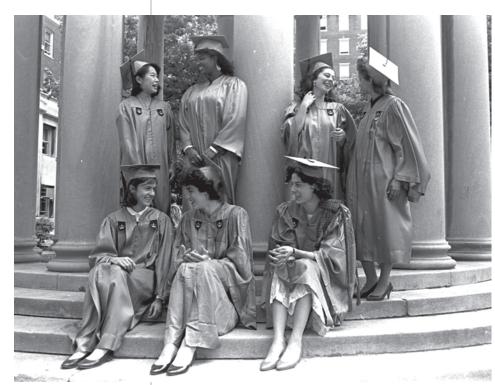
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FINALS

A First-Class Act

Thirty years ago, on May 13, 1987, Columbia College graduated its first coeducational class, becoming the last Ivy League college to do so and changing the course (and courses) of the institution forever. Test your knowledge of this landmark chapter in the University's history.



Members of the Class of 1987 at the Van Amringe Memorial: (standing, from left) Kokoro Kawashima, Vania Leveille, Marya Pollack, and Shelley Coleman; (seated, from left) Ilaria Rebay, Linda Mischel, and Hannah Jones.

- 1. Which of the following Class of 1987 positions were held by women?
- a) class valedictorian
- **b)** class salutatorian
- ${\bf c}$) class president
- d) all of the above

2. Which female author was added to the Core in 1985?

- a) Jane Austen
- b) George Eliot
- c) Gertrude Stein
- d) Virginia Woolf

3. What percentage of the first coed class was female?

- a) 15 percent
- b) 25 percent
- c) 45 percent
- d) 55 percent

- 4. Columbia's Collegiate Course for Women, a home-study bachelor's program, was created in what year?
- **a)** 1868
- **b)** 1883
- **c)** 1912
- **d)** 1919
- 5. In 1975, Columbia College dean Peter Pouncey's push to admit women was rejected by President William McGill on what basis?
- a) Columbia wasn't ready for the change
- **b)** It would be the end of Barnard
- c) The process would be too costly
- d) Alumni would object

- 6. Who was the first woman composer added to the Music Humanities course?
- a) Barbara Strozzi
- b) Rebecca Clarke
- c) Clara Schumann
- d) Hildegard von Bingen
- 7. In 2011, Kyra Tirana Barry '87CC became the first woman president of the Columbia College Alumni Association. What other position has she held?
- a) Emmy Award–winning sound engineer
- b) team leader of the US women's wrestling team
- c) CBS business-news analyst
- d) architect known for her work on historic estates
- 8. Which team won the first women's Ivy championship for Columbia?
- a) 2006 soccer team
- b) 1999 basketball team
- c) 1997 archery team
- d) 2008 fencing team
- 9. In 1983, which administrator called coeducation "the best single thing for the life and morale and the future of the College"?
- a) Michael Sovern '53CC, '55LAW, '80HON, University president
- **b)** Robert Pollack '61CC, dean of Columbia College
- c) Roger Lehecka '67CC, '74TC, dean of students
- d) Robert Goldberger, University provost

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