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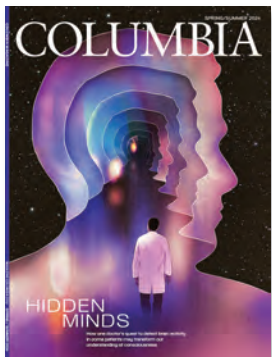
LETTER FROM THE EDITORS

This past year has been an extremely difficult one for Columbia. Global events have divided our community and challenged our sense of self. Now University leaders are working on ways to use the critical and sometimes painful lessons they have learned and move forward.

For *Columbia Magazine*, that means redoubling our efforts to foster community and strengthen the bonds between the University and alumni and between alumni and each other. We will continue to do this by showcasing the life-changing research and countless intellectual and cultural contributions of our amazing alumni, faculty, and students.

In this issue, for example, our cover story outlines the social, economic, and political realities of climate migration in the United States. Columbians are leading dozens of projects aimed at helping policymakers protect vulnerable people. The impact of those efforts will be felt for years to come.

We work at this magazine because we believe deeply in Columbia’s educational and research mission. We know that this institution creates opportunities for students, scholars, scientists, artists, entrepreneurs, and physicians as they prepare to become leaders, advance knowledge, care for patients, enrich our culture, and make discoveries that save lives and change the world. In these challenging times, we are committed to sharing their stories with you, our readers, and to maintaining this focus and purpose.



OF CHURCHES AND CURSES

I was fascinated by Paul Hond’s article “Of Gods and Games” in the Spring/Summer 2024 issue.

Yes, fans are the flock and stadiums the temples, but with a glaring difference: fans in stadiums are primarily men, while congregants in most churches are primarily women. And yes, men usually preside in both arenas.

S. Ellis Bandele '71JRN
Brooklyn, NY

Paul Hond is guilty of revisionist history in his otherwise spot-on article “Of Gods and Games” when he asserts that the Boston Red Sox’s 1975 World Series loss to the Cincinnati Reds was “widely attributed to The Curse, a championship drought that began in 1919 when the team sold Babe Ruth to the New York Yankees.”

In fact, as Dan Shaughnessy, author of *The Curse of the Bambino*, confirmed to me, “The Curse” came into public discourse after the Sox dropped the 1986 series to the Mets in spectacular fashion. Alas for this Yankees fan, Boston has won four World Series since I moved to Massachusetts after Columbia.

Mark S. Sternman '92SIPA
Somerville, MA

MINDFUL OBSERVATIONS

I read with interest David J. Craig’s article about Jan Claassen’s work on understanding consciousness in coma patients (“Hidden Minds,” Spring/Summer 2024). About fifteen years ago, a family friend had a heart attack in a subway station, falling and cracking his skull. By the time he got to the hospital, he was determined to be clinically brain-dead. After hours of effort, the doctors advised that he be taken off life support. When the family agreed, the patient immediately appeared to get goose bumps. Everyone came to the conclusion that he had somehow heard that the time had come to pull the plug, and reacted.

Vincent T. Pica '79BUS
New York, NY

3 WEB STORIES YOU MIGHT HAVE MISSED



Hot Weather Is More Dangerous Than You Think. Here’s What You Need to Know.



8 Books That Will Transport You to Another Time and Place



6 Major Artworks You Might Not Know Were Created by Columbians

Read at magazine.columbia.edu

FEEDBACK

As someone who came out of a ten-day coma after a fall as a child in the 1960s, I'm glad scientific advances continue to be made. Some of the credit for my recovery must also be given to my grandmother and her church, whose members

prayed mightily for me. We ought to allow a little room for a spiritual aspect to recovery to complement the incredible work done by first responders, doctors, nurses, and scientists.

Phil Boerner '84CC
Sacramento, CA

AN IMPERFECT PRESS

In your interview with journalism-school dean Jelani Cobb ("The Challenges of Reporting in an Election Year," *The Big Idea*, Spring/Summer 2024), Cobb blamed the lack of

trust in mainstream media partly on the decline of local news. The premise is that people who trust their local news are more likely to trust national or global news. Interesting, but isn't there a more fundamental explanation? Many Americans perceive mainstream media as steering public discourse at the behest of special interests rather than empowering consumers to draw the most informed conclusions possible. Nowhere is this more evident than in what the news chooses *not* to report, such as President Biden's cognitive decline or the origins of COVID-19. More local news would be great, but how would it alter this structural

KEY TO ABBREVIATIONS

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

I was ~~was~~ am really into music.

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flaw at the heart of Americans' distrust of mainstream media?

Sean Moylan '98CC
Flagler Beach, FL

Jelani Cobb asks, "When do we call something a lie?" I'd argue that it is not the journalist's responsibility to be the arbiter of truth. It is to report the facts. Period. The truth is embedded in the facts. Contrary to Cobb's claim that consumers tend to silo news that conforms to their worldview, news consumers seek truth. People distrust the mainstream media because of inaccurate and biased reporting. The true threat to democracy is bad journalism by our mainstream media.

David Cromwick '80SEAS
Saugus, MA



Alice Guy Blaché

ALICE IN MOVIELAND

I read with great pleasure Paul Hond's article on the Women Film Pioneers Project ("Reel Equality," College Walk, Spring/Summer 2024). It's important that people understand the contributions that women made during the early years of film production, not just as stars but also as directors, writers, editors, and more. Alice Guy Blaché's pioneering work cannot be understated. Unfortunately, the photo that illustrates the article, captioned with Blaché's name, is actually of Mary Pickford. Alice Guy Blaché deserves to have her face recognized as someone who made jaw-dropping contributions to film.

Maria Alba Brunetti '86BC
Eastchester, NY

NUPTIALS NOSTALGIA

"Going to the Chapel" (College Walk, Spring/Summer 2024) brought back warm personal memories for us. We met at Columbia as graduate students and, fifty years ago, had our wedding reception on campus. Our Quaker marriage ceremony was held not in St Paul's Chapel but in Earl Hall, which at the time hosted a small but robust Quaker meeting. As befitting the Quaker tradition of simplicity, the room was very plain but welcoming to our guests, few of whom had ever been to a Quaker meeting. It felt right that we were among not only our "chosen community" of family and friends but also the larger Columbia community that had brought us together.

**Thomas Blank '76GSAS and
Ilene Staff '76GSAS**
Hartford, CT

Your "Going to the Chapel" article was a particular delight for me, since I got married at St. Paul's Chapel in August 1972. The guest list included sixteen Columbians — classmates and professors from five schools: business, dental, nursing, physicians and surgeons, and social work. The chapel provided the perfect venue for a wedding and a gathering of friends with Columbia ties.

Monica Donnelly Williams '71NRS
Port Jefferson, NY

If you are interested in booking a wedding at St. Paul's Chapel, please contact Heather Lee, associate director of events and sales, at hl3660@columbia.edu.

**QUESTIONS?
COMMENTS?**

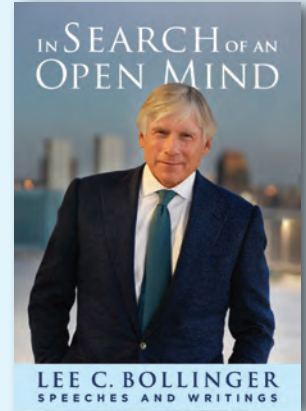
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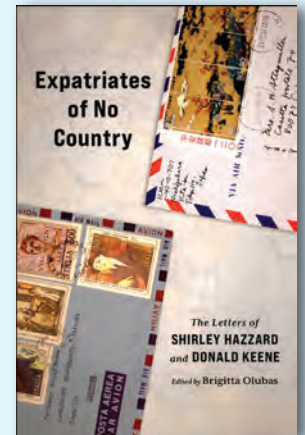


New from
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"[Lee Bollinger's] reflections on two extraordinary decades at the helm of one of America's greatest universities are a treasure trove of subtle insight and wise guidance."

—Laurence H. Tribe, Carl M. Loeb University Professor Emeritus, Harvard University



"The extensive, decades-long correspondence between Shirley Hazzard and Donald Keene—superbly edited by Brigitta Olubas—opens many doors into the cosmopolitan life, psyche, and literary genius of Shirley Hazzard. Her letters to Donald Keene contain some of her very best prose. Keene's letters in turn are full of erudition and insight."

—Robert Pogue Harrison, author of *Juvenescence: A Cultural History of Our Age*



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COLLEGE WALK

NOTES FROM
116TH STREET
AND BEYOND



The Zs Have It

Voters under thirty — Generation Z — could tip the balance of the 2024 election. But will they turn up at the polls?

“In close elections, every vote counts,” says political scientist Robert Shapiro, a professor of government at SIPA. “Any subgroup of voters can have a decisive impact on the results.”

Much attention over the past year has been focused on the attitudes of the subgroup known as Generation Z — the more than forty million young people, including eight million newly eligible voters, who were born roughly between 1995 and 2006. Shapiro thinks the votes of this important segment of the electorate will be driven by issues of particular concern to them: not just the economy (jobs, housing, inflation) but also reproductive rights, gun violence, and climate change. “That’s why the Democrats have been doing well among younger voters over the last twenty years,” he says. “But the question now is, what could offset that positive effect?”

Over the past year, a sense of discontent with the political system as a whole, combined with financial worries and anger over the Biden administration’s Mideast policy, has raised the possibility that many young people will stay home on Election Day. “I wouldn’t describe it as apathy, though,” says Grace Fitzgerald, a Columbia senior and

president of the multi-partisan Columbia Political Union (CPU), a student organization founded in 1935 to foster political dialogue and civic engagement on campus and in the community. “It’s more like a protest. It’s a very intentional decision.”

At the same time, says Fitzgerald, President Joe Biden’s withdrawal from the race in July and the candidacy of Vice President Kamala Harris have greatly energized many disaffected Gen-Zers, including some who find fault with Harris’s record as a prosecutor. The result has been an unusual sort of embrace: “Gen Z is rallying around Harris in a way that is ironic, making jokes on TikTok and X to show they don’t fully support her but will rally around her,” Fitzgerald says. “Ironic praise allows people to support her without committing themselves to saying they support all her policies.”

Jack Lobel, a junior at Columbia College, believes his generation, snark aside, will show up — and in record numbers. “Gen Z is one-fifth of the electorate,” says Lobel, who is press secretary for Voters of Tomorrow, a nonprofit group that promotes youth-voter turnout through social-media outreach and on-the-ground organizing. “And we are motivated.”

While unrest on college campuses over the Israel-Hamas war has highlighted youth activism, recent polls out of Harvard and the news website Axios show that most young voters are concerned mainly with domestic issues. “This is the first presidential election post-*Dobbs*,” says Lobel, referring to the 2022 Supreme Court decision that overturned the constitutional right to an abortion. “We are angered by that decision, and it will likely push young people to vote in greater numbers than ever before.”

Because the US elects its president through the Electoral College rather than the popular vote, it’s in the battleground states — Shapiro names Michigan, Pennsylvania, Wisconsin, Nevada, Georgia, and Arizona, and potentially New Hampshire, North Carolina, and Minnesota — where the youth vote could be pivotal. Voters of Tomorrow is targeting young people in these states through texts, phone calls, and social media. “When young voters are contacted about elections, they are more likely to vote,” Lobel says. “And we want to ensure that Gen Z elects the candidates that are responsive to their concerns.”

No demographic group is monolithic, and there are plenty of political disagreements among young voters. But Lobel, who says youth-voter registration has skyrocketed with Harris’s candidacy, sees consensus around what young people *don’t* want: “When your agenda is to take us back in time, restrict our freedoms, deny climate change, and make it easier for assault weapons to fall into the hands of people who should not have access to them, you’re going to have a hard time winning over any meaningful segment of Gen Z.” — *Paul Hond*

Corals on the Edge

As warming seas threaten these essential marine creatures, Braddock Linsley explores their history

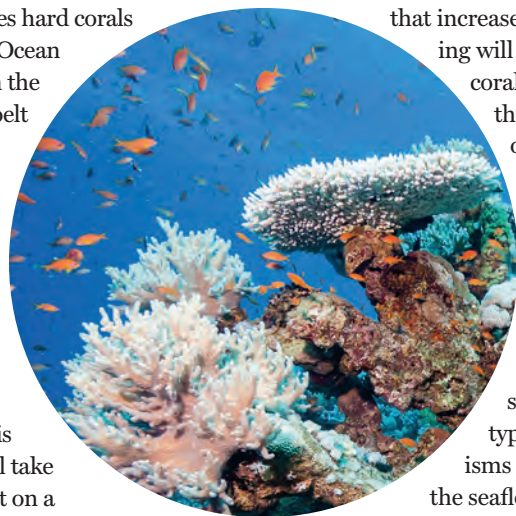
This past spring, the National Oceanic and Atmospheric Administration announced that the world was undergoing a “global coral-bleaching event” due to the record-setting warmth of our oceans — the fourth such event ever recorded and the second in the past ten years. For Braddock Linsley, a research professor at the Lamont-Doherty Earth Observatory, it’s another worrying twist in a story he’s been investigating for four decades.

Linsley studies coral. More specifically, he studies hard corals in the Pacific Ocean that lie within the tropical rain belt that extends around the equator. He has been to the coasts of Panama, Fiji, Tonga, and Samoa in search of samples for his research. He’ll take out a boat, put on a snorkel, and look beneath the water’s surface until he sees the massive, branching architecture, the mushroom-like protuberances, the blooming, varied colors of a coral reef. Then he’ll get to work.

Called the “rainforests of the sea” for their dazzling biodiversity, coral reefs cover less than 1 percent of the ocean floor but provide habitat for more than a quarter of all marine life. As Linsley explains, there are some six thousand known species of coral, each made up of colonies of tiny tentacled creatures called polyps, whose often vivid hues come from symbiotic algae that help the coral grow its

limestone skeleton. “When you look at a large coral that’s ten or twenty feet high, only about a half centimeter of material is the living tissue — it’s like a skin — and underneath is this calcified mass that the coral has generated over the years,” Linsley says. “When the water temperature is elevated, the algae can produce harmful toxins and so the coral expels them, leaving the translucent tissue with the white skeleton below it.”

This “bleaching” is a sign of distress and poor health, and scientists warn



that increased warming will kill off the corals. “They’re the foundation of the marine ecosystem,” Linsley says. “Coral reefs break wave energy, which allows all sorts of other types of organisms to colonize the seafloor, which then brings in fish. Without a healthy coral structure, the whole ecosystem will collapse.”

Linsley wants to know more about undersea warming patterns, and coral is an ideal instrument through which to peer into the ocean-climate past. On the reefs, Linsley and his team use drills to retrieve cylindrical core samples about three inches in diameter and up to twenty feet long and then fill the holes with concrete plugs, which the coral will grow over. In the lab at Lamont, they cut the cylinders into slabs and use X-rays to reveal annual growth rings, similar to those of trees. “There are also chemical

COLLEGE WALK

tracers in the coral that are sensitive to water temperature and salinity, so we can measure the geochemistry of the skeleton,” Linsley says. He has studied many aspects of coral, from the effects of growth rates and water depth on skeletal carbon isotopes to the harms of acidification. Now he’s looking at past El Niño events: “Are these events becoming more frequent? Less frequent? Are they getting stronger? The jury’s still out.”

El Niño is a weather pattern that pushes warm water in the equatorial Pacific east to the west coast of the Americas. It occurs every two to seven years and can raise temperatures a couple of degrees on the

Pacific side of Panama. Linsley went to Panama in 2018 and visited some coral that he knew had been bleached during the big El Niño event of 2015–16. But when he found the reef, he saw, to his surprise, that it had started to regrow tissue.

Linsley’s team took core samples and identified “dead zones” in the coral’s history, including the El Niño of 1997–98. “We figured out exactly when it had died during that event and could calculate that it started growing again eighteen months later.” The reef, which had succumbed twice in the past twenty years, was able to recolonize polyps and begin calcifying again. “It looked perfectly

healthy when we were there,” Linsley says.

Such resiliency is limited, however: each bleaching makes coral more vulnerable to starvation, sickness, and ultimately a final, irreversible death.

This pattern is particularly evident in the Great Barrier Reef, a 1,400-mile-long system of reefs and coral islands off the Australian coast — the largest animal-made structure on the planet. Linsley is a coauthor of a paper published in August in *Nature* titled “Highest ocean heat in four centuries places Great Barrier Reef in danger.” A 2018 underwater heat wave killed almost a third of the reef. It has endured five

bleaching events in the last eight years, with the current one proving to be the most devastating on record.

Linsley, at sixty-four, has seen a lot of changes underseas, many of them, in his words, “scary and sad.” He often reflects on the large tropical coral colonies from which he quarried boatloads of core samples, knowing that some of them might now be dead.

For now, though, his real work is on land. “We’ve got a lot of corals to be analyzed, so I’ve been trying to focus on what’s in the lab,” he says. But he can’t help thinking about the future of the planet’s reef builders, fighting for survival in the warming seas. — *Paul Hond*

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The Turnaround

Under coach Megan Griffith '07CC, the Columbia women's basketball team has leapt to the top of the Ivies. How far can these Lions go?

Before Megan Griffith '07CC became coach of the Columbia women's basketball team, the Lions were limping. The team had tasted just one winning season since joining the Ivy League conference in 1986 and would go through eight head coaches over the next twenty years. Their historically bad season in 1994–95, when they went 0–26, was bracketed by years of almost equal futility. As an assistant coach for the Princeton Tigers, the apex predators of the Ivy League conference, Griffith had watched Columbia's woes from across the court. And it hurt. She was a former Lion herself, an intense competitor, and she still bled Columbia blue.

And so in 2016, when Columbia's athletic director, Peter Pilling, offered her the job of head coach at the school she loved, Griffith pounced. "I knew that nobody would do a better job than me," she says. "Not because of my experience, or who I was as a coach, but because nobody was going to care about the program like I would."

Today, Griffith, thirty-nine, is the winningest coach in the program's forty-year history. In 2022–23 she led the Lions to their first-ever Ivy League title, and she repeated that feat in 2023–24. "I've always been passionate about this place," she says, sitting in her office in Dodge Fitness Center, surrounded by team photos, plaques, framed jerseys from her Columbia playing days, and a video screen where she studies film of opposing teams.

"It was clear that Megan knew what it was going to take to be successful," Pilling says. "She was young, but she understood the Ivy League process and had a very detailed plan about how to build a championship program."

The problem, as Griffith saw it, was that the Lions lacked distinctiveness.

They had no particular strengths or style. "They were good players just playing basketball," says Griffith, "and so I felt we needed to establish an identity. I wanted to be different." Being different in the Ivy League, she decided, meant playing an up-tempo game, and Griffith set out to find the players to fit that model. She cast a wide recruiting net, scouting high-school players in the South (Florida, Georgia) and internationally (the UK,



Megan Griffith celebrates a Lions victory over Princeton.

Australia, Spain). "You have to go out and present Columbia to prospects," Griffith says. "Obviously, this is an amazing place to go to school, one of the best universities in the world. Admissions standards are extremely high, and there is needs-based financial aid."

The trick, then, was to convince talented, sought-after players to be part of a rebuilding project. She met with student athletes and their parents

and recruited Abbey Hsu '24CC and Kaitlyn Davis '23CC, two players who would become the core of a Columbia juggernaut.

"Coach G. really sold it to me, like, 'Hey, you could come here and make an impact right away,'" says Hsu. "I saw all the effort that she and her staff put in and how much belief they had in this dream that they were painting. My parents loved that Columbia was an Ivy League school, and my dad, who was Chinese, loved that Coach G. is half Chinese [Griffith's mother is from Hong Kong]. So it was just a perfect scenario."

Davis, too, was sold on the plan and recalls not just the practices and games but also Griffith's semiweekly team meetings. "We talked about our team and about things that were going on in the country," she says. "We reflected, we journaled. Coach G. pushes you to work hard on and off the court. But she also shows you how much she cares about you as a person in a way that just makes you want to run through walls for her." Hsu agrees: "Coach G. is a natural-born leader, and she coaches us extremely hard. On the flip side, she cares and loves us so much harder."

With players and a plan in place, the Lions began to gel. In 2019–20 they went 17–10 (8–6 in Ivy League play), and in the three years since the COVID-canceled season of 2020–21 they have been the terror of the conference, going 25–7 (12–2), 28–6 (12–2), and 23–7 (13–1). This past season they finished in the top thirty nationally in scoring, assists, and field-goal percentage. "We're one of the best offenses in the country right now," Griffith says.

That's a big statement to make about any Ivy program, let alone

Columbia's. Certainly it is not something Griffith could have predicted when she first arrived at Morningside Heights in 2003, recruited out of Villa Maria Academy High School in suburban Philadelphia. Griffith, who played guard, became the star and captain of the team at a tumultuous time (she had four coaches in four years) and was a two-time All-Ivy selection. In 2016, the year she became the Lions' head coach, she was inducted into the Columbia Athletics Hall of Fame.

But for all her prowess on the court, Griffith will probably be best remembered as the coach who engineered one of college basketball's greatest turnarounds. This past March, Columbia earned its first bid in the NCAA women's tournament, an achievement Griffith calls "absolutely momentous." (The Ivy League has a competitive disadvantage in relation to other conferences: by its own rules, it does not award athletic scholarships and does not permit year-round practice.) And though they lost 72–68 in the First Four round to Vanderbilt, the Lions proved they belonged on college basketball's biggest stage.

Yet for all the team's success, Griffith says that her proudest moment as a coach came earlier this year, when Hsu and Davis were drafted into the Women's National Basketball Association (Davis was selected by the New York Liberty, Hsu by the Connecticut Sun). And it thrills her that the stands in 2,700-seat Levien Gymnasium in Dodge, which were virtually empty during her own playing days, are now packed with sellout crowds.

"Fans are showing up not just because it's entertaining but because they are *with* us, cheering for our players," Griffith says. And the Lions feed off that energy: there's a swagger in their gait these days. As Griffith gears up for the 2024–25 season (the home opener against Stony Brook University is on November 4), aiming for an Ivy conference three-peat, her confidence is palpable.

"If you want to win championships, you've got to talk, walk, and act like a champion," Griffith says. "I don't think there's a limit to what we can do."

— Paul Hond

Body of Knowledge

Columbia's Anatomical Donor Program gives students the education of a lifetime



It's not unusual for people to donate their bodies, or parts of their bodies, to science. In fact, almost 170 million Americans are registered organ donors, and people with specific medical conditions often donate their bodies for disease research. But giving your body to a medical school so that students can learn anatomy — the fundamental basis of medicine — is not an option you can check off while renewing your driver's license. That may help explain why many institutions, including Columbia, are currently experiencing a body shortage.

This is an urgent problem, because for first-year medical students, a cadaver is the ultimate learning tool. "In a sense, that body is a student's first patient," says Paulette Bernd '77GSAS, '80VPS, director of the Anatomical Donor Program at CUIMC. Bernd, who runs the clinical gross-anatomy course at Columbia and gives most of the lectures, maintains that regard-

less of the increasing sophistication of 3D computer models, there is no better teacher than the human body itself. "An actual body is obviously more realistic," she says. "The artery or the nerves or the muscles might not look like they do in the textbook, so there's an act of discovery that students have to do on their own."

At Columbia, all first-year medical, dental, and physical-therapy students take a human dissection course, and the rewards of studying real bodies can't be overstated. "For those who are going into surgery — which is a pretty good number of medical students here — it's invaluable," says Louie Kulber, a second-year MD-PhD student. "They're never going to have another opportunity to do a full-body dissection, where it's OK to make mistakes." Then there's the human side: "You have to care for your cadaver and keep it properly covered. You have to make sure you're being respectful."

Last spring, Kulber helped organize Columbia's annual anatomical-donor memorial service, which dates to the 1970s. More than 150 students and faculty gathered in the Vagelos Education Center at CUIMC to honor the donors with whom they had become so powerfully connected. Bernd, along with University chaplain Jewelnel Davis and dean of students Jean-Marie Alves-Bradford, offered remarks, and then the students got up to talk about "the incredible selflessness of the donors," Kulber says.

During Bernd's course, which runs from August to December, two moments of silence are observed. One comes at the beginning, when the cadavers are first brought out. The other comes toward the end. "In the class, we start with the chest and then work our way to the arms and legs, then back to the chest and abdomen," says Kulber. "The last thing we do is the head." Up to that point, the head is covered with an opaque bag, and students take time to silently express their gratitude before the bag is removed. "As the semester goes on, little by little, the work becomes more mechanical," explains Kulber. "But when you see the face, it all comes back: this is a person. So there's this very emotional response."

Because of the body shortage, and because dissection takes time, Bernd has two groups of students sharing one donor. "If the first group does the upper arm, then the next group will do the forearm," Bernd says. "And they'll learn from each other's dissections." And because the lab is open at all hours, students can return at night and on weekends to

examine other cadavers. "You can see big people, small people, people of different ethnicities, people with different conditions or comorbidities and different causes of death," Kulber says. "The lab is accessible to the entire class."

To qualify as a donor, a person must be over eighteen at the time of death and within sixty miles of the University (visit pathology.columbia.edu to learn more). The body cannot be morbidly obese or emaciated and cannot have had a communicable disease or recent major surgery. Columbia will pick up the body and bring it to the morgue at CUIMC. The embalming process takes six months, since the embalming fluid must diffuse through all the body's systems and tissues. Once the body is prepared, it becomes available for Bernd's lab.

Donors benefit in multiple ways, says Bernd. One is knowing that, after they die, they will provide an unparalleled training opportunity for future physicians; another is saving on the cost of burial. Columbia pays for the donor's cremation, gets the death certificate, and returns the ashes to the family. Alternatively, the ashes can be interred, for free, in a Columbia plot at Green-Wood Cemetery in Brooklyn, the gentle-sloped, verdant resting place of Horace Greeley, Boss Tweed, Leonard Bernstein, and Jean-Michel Basquiat.

There, among the elms, a granite monument reads: *In memory of those individuals whose bequeathal to Columbia University advanced medical science.* IN LUMINE TUO VIDEBIMUS LUMEN.

— Paul Hond

THE SHORT LIST



SEE The Wallach Art Gallery presents **Shifting Shorelines**, an exhibition focused on the natural and

industrial character of the Hudson River from Albany to the Atlantic. Co-curated by Annette Blaugrund '87GSAS, the show will feature works by George Bellows, Aaron Douglas '44TC, and other notable artists. From October 4 to January 12. wallach.columbia.edu

ROAR Bring your Lions pride to **Homecoming 2024**, a weekend full of family activities, including a Saturday football game against Dartmouth. From October 25 to 26 at the Baker Athletics Complex. college.columbia.edu/alumni/Homecoming-2024

LISTEN Miller Theatre's fall lineup includes a performance by Grammy-winning singer **Luciana Souza** and jazz guitarist **Chico Pinheiro** on October 5, followed by a dual recital from pianists **Simone Dinnerstein** and **Awadagin Pratt** on October 24. millertheatre.com



MOVE Cycle to end cancer with **Velocity**, an annual fundraiser for Columbia's Herbert Irving Comprehensive Cancer Center. Choose from three rides starting in Purchase, New York, on October 6 or participate remotely with a physical activity of your choice. velocityride.org

LEARN At the annual **Lamont-Doherty open house**, a free public event at Columbia's premier earth and climate research center, science buffs of all ages can learn about the planet from world-class experts. October 19 in Palisades, New York. openhouse.ideo.columbia.edu



In search of safer ground

**AMERICA'S GREAT CLIMATE MIGRATION HAS
BEGUN, AND COLUMBIA RESEARCHERS**

WANT TO MAKE SURE



NO ONE IS LEFT BEHIND

BY DAVID J. CRAIG

For people whose lives have been turned upside down by climate change, who have survived wildfires and droughts, lived through hurricanes, and experienced unrelenting heat or unprecedented floods, it is a last-ditch survival strategy: you pull up stakes and move.

Around the world, people are now routinely fleeing their homes to escape the effects of global warming. In the African Sahel, a semi-arid region that sits south of the Sahara, altered rainfall patterns are causing farmers to throw down their tools and seek refuge in cities. In Honduras, Nicaragua, and El Salvador, prolonged droughts are killing crops and prompting impoverished families to set out in search of more fertile ground. In Southeast Asia, the rising sea is inundating rice paddies, forcing farmers to quit their livelihoods and retreat inland.

There's no doubt that the climate crisis disproportionately affects poor countries. Populations that depend on farming or fishing are extraordinarily vulnerable to nature's whims. Indeed, one report by the World Bank, coauthored by Columbia geographer Alex de Sherbinin, predicts that more than two hundred million people in low-income countries may migrate as a result of climate change by 2050.

But could Americans experience similar upheavals? Could we, despite our relative wealth and long history of bending nature to our will, one day find that large sections of our country have become uninhabitable?

"We'll likely see population shifts in the US in the coming decades because of climate change," says de Sherbinin, who directs the Columbia Climate School's Center for International Earth Science Information Network (CIESIN) and

NATHAN KEISINGER

teaches a course on climate migration. “Not everybody is necessarily going to go far. But we could see significant movements, probably away from the coasts and toward the north.”

According to de Sherbinin, some studies have indicated that tens of millions of Americans could be uprooted by global warming this century. However, there is great uncertainty about how many people may move and when, in part because individual decisions about whether to migrate are highly complex, involving not just environmental factors but economic, cultural, and social ones. “In other countries, we’ve observed that climate change is rarely the sole

environment will be utterly transformed by mid-century, with profound implications for people’s health, safety, and quality of life. This will be true even under optimistic climate scenarios, such as if the world’s largest economies accelerate their transition to renewable-energy systems and hold average global temperatures to five or six degrees Fahrenheit above preindustrial levels. Scientists now know with a fair degree of certainty, for example, that sea levels will rise one to two feet along the Gulf Coast and Eastern Seaboard by 2050, putting millions of homes at risk for regular flooding. “We’ll probably figure out ways to protect large sections of

periods of drought and flooding that will make farming much less productive, and that parts of the South will be so hot and humid in the summertime that it will be dangerous to go outdoors. Climate models suggest that the heat index or “real feel” temperature — which describes the combined effects of heat and humidity — could regularly exceed 130 degrees Fahrenheit in many southern states, a level that has rarely been observed anywhere and that is life-threatening even to strong, physically fit people at rest.

Solomon Hsiang ’11SIPA, an economist who studies the effects of rising temperatures on human behavior, has argued that such extreme conditions

**COULD WE ONE DAY
FIND THAT LARGE SECTIONS
OF OUR COUNTRY
HAVE BECOME
UNINHABITABLE?**



Americans are beginning to reconsider settling in the Southwest because of extreme temperatures and dwindling water supplies.

reason people decide to relocate,” says de Sherbinin, who has led several landmark studies on global migration patterns. “If people still have their livelihoods and there’s infrastructure to keep them reasonably safe, they’ll often stay and try to adapt, even in the face of pretty extreme environmental pressures.” So the amount of migration that we should expect to see in the US, he explains, will be strongly influenced by the public investments we make in supporting and protecting people in the least hospitable places. “The big question then becomes: how many resources do we put into adaptation efforts, and for whom?”

One thing that climate scientists know for sure is that America’s natural

New York City, Boston, and Miami, because they contain huge numbers of people and billions of dollars in infrastructure, but countless other coastal communities situated in between major cities are going to have a more difficult time adapting,” de Sherbinin says. “State and local governments don’t have the resources to build seawalls around every seaside town. So all along the coasts you’re going to see homeowners and businesses trying to relocate. And where residents are too poor to move, we may see stranded assets as insurers pull out.”

Also by mid-century, climate scientists expect that large sections of the West will be turning into desert, that the Great Plains and the South will be stricken by heat waves and oscillating

could soon cause large numbers of people to leave the South, the Midwest, and the West. “People will definitely move. The question is just whether we’ll see this happen in the next few decades, given the current rate of warming,” says Hsiang, who conducted groundbreaking research as a Columbia graduate student and is now a professor at the University of California, Berkeley. He points out that extreme heat has been shown to decrease economic productivity in agriculture, manufacturing, and many other industries, which may lead businesses to relocate from the hottest parts of the US, with workers likely to follow. “At first, we’ll probably see an outflow of people in their twenties and thirties, who tend to be the most mobile,” he says.

MARIO TAMAYO / GETTY IMAGES

Global warming is already causing subtle demographic shifts in the US. Climate-driven natural disasters like wildfires, hurricanes, and floods — which have all grown more frequent, intense, and destructive this century — now force two to three million Americans from their homes annually, and Census Bureau surveys indicate that many displaced people are choosing to permanently relocate out of harm's way. The US government is also actively encouraging people to clear out of vulnerable areas. The Federal Emergency Management Agency (FEMA) has in recent years ramped up its efforts to acquire properties that routinely flood, many of which are being restored to estuaries, marshes, and wetlands that act as natural buffers against future storms. Meanwhile, old industrial northern cities, from “Climate-Proof Duluth,” Minnesota, to Burlington, Vermont, are billing themselves as “climate havens” in an effort to lure newcomers and revitalize their economies.

“Northern states could see an influx of people, because their summers will still be fairly pleasant and their winters less severe,” says de Sherbinin. Particularly well-positioned geographically, he says, are states near the Great Lakes, since fresh groundwater will be an increasingly precious resource as the planet warms. De Sherbinin frequently gives lectures in New England and the Great Lakes region about the need for policymakers and urban planners to prepare for the arrival of climate migrants. “Cities and towns throughout these regions could benefit economically and culturally,” he says. “But they need to start planning to provide housing, education, health care, and other services for more people.”

The total number of Americans who might already be considered “climate migrants” is modest but growing. This past winter, Jeremy Porter, a sociologist who teaches at Columbia’s Mailman School of Public Health and at CUNY, published one of the first empirical studies on the subject. In a paper in

the journal *Nature*, he and colleagues revealed that approximately 3.2 million people in the US have moved in an effort to escape flooding over the past two decades. In that time, climate change has made flooding worse across the entire country, not just along the coasts. “Inland communities that rarely faced flooding in the past are now getting washed out by heavier rainfall,” says Porter, whose team used big-data techniques to confirm that flood risk was causing people to move out of their neighborhoods. “In response, people in just about every county are now fleeing low-lying areas.”

Those who are leaving flood zones aren’t necessarily going long distances. In fact, the majority of them are moving to higher ground in the same county, Porter found. But in a forthcoming paper, he and his colleagues reveal that homebuyers are starting to avoid entire states because of their vulnerability to wildfires, extreme heat, and windstorms. “Several of these states, like California, Texas, and Florida, are still experiencing population growth, but we found evidence that they’re now growing more slowly than they would be if not for these climate hazards,” says Porter. “Some people, it seems, are finally taking these risks into consideration when choosing where to live.”

You might wonder why it’s taken them so long to do so. Climate scientists have for years been warning Americans that they are endangering themselves by settling in places like the parched, wildfire-prone woodlands of California and Nevada; the eroding coastlines of Florida and South Carolina; and the sweltering Southwestern states. Yet Americans have continued to flock to these places, causing their populations to grow dramatically in recent decades. They continue to do so today, notwithstanding the small deceleration in growth detected by Porter, despite the costs in deaths and dollars. In 2023, the US experienced a record-breaking twenty-eight climate and weather disasters that each caused \$1 billion or more in damages; these events killed nearly five hundred people.

Environmental journalist Abraham Lustgarten ’03JRN, in his new book, *On the Move: The Overheating Earth and the Uprooting of America*, considers why so many Americans live in high-risk locations and what it might take for them to leave. The reason for our current population distribution, he asserts, is largely economic, since US elected leaders, with the backing of financial institutions, have long encouraged the construction of homes just about anywhere possible, including in the paths of wildfires, hurricanes, droughts, and floods. For a long time, this aggressive development strategy paid off, because natural disasters were relatively rare and the costs of repairing properties when catastrophes did occur were easily shouldered by insurance companies. But in recent years, disaster-recovery costs have skyrocketed, causing insurance companies in California, Florida, and several other states to start losing money. Property owners have so far been largely insulated from these losses, says Lustgarten, because state leaders, fearing that a mass exodus of residents would destabilize their real-estate markets and shrink their tax base, have — through regulation and subsidy — prevented insurance companies from significantly raising their rates. But sooner or later, Lustgarten argues, homeowners in vulnerable areas will have to shoulder the true cost of their coverage, which will cause property values to plummet. In the meantime, he says, subsidy programs are giving homeowners a false sense of security, making them unaware of the full extent of their financial exposure.

“The cost of insurance is an indispensable signal,” Lustgarten writes. “It’s not the only tool that represents the risks of climate change, but just as an auto-collision policy is more expensive for a teenage boy than for an adult driver, a high cost for homeowners’ coverage offers a clear, market-based sign of danger ... Subsidizing insurance distorts that warning signal. It minimizes the perception of the real risk that people face.”

There are signs that the costs of climate hazards are pushing the US insurance

industry to a breaking point. *New York Times* reporter Christopher Flavelle '09SIPA revealed in an investigative series this year that insurance companies are now routinely losing money on homeowners' policies in at least eighteen states — primarily because of wildfires, floods, and intensifying windstorms — and that in response many companies are refusing to sell or renew policies in certain at-risk areas, leaving homeowners scrambling to find coverage. Some state regulators, in a desperate attempt to persuade the companies to continue to provide coverage, have permitted them to raise rates, which have jumped 50 percent or more in some areas, with further increases expected. Flavelle called the development “a flashing red light” for the US economy. Without affordable insurance, “banks won't issue a mortgage; without a mortgage, most people can't buy a home,” he writes. “With fewer buyers, real-estate values are likely to decline.”

Lustgarten, in *On the Move*, predicts that the first big, conspicuous waves of climate migration in the US will begin when the bottom falls out of housing markets in the most vulnerable regions. If these markets do crash, he writes, they are likely to crash quickly, without much warning. And then, he writes, “a Darwinian game of financial survival” will ensue. Homeowners with enough cash liquidity to purchase new homes elsewhere will do so, and everyone else will be left with stranded assets, living in hollowed-out communities with less money for schools, police, and other basic services — let alone for floodwalls, wildfire barriers, and other adaptation measures that will be urgently needed.

“If that sounds unreasonably apocalyptic, it's almost exactly what leaders in Louisiana are right now warning about,” Lustgarten writes. He notes that many parishes along the Gulf Coast have seen a flight of middle-class and wealthy residents in recent years; those left behind have watched their neighborhoods devolve into blight. “Many of the people who have remained in coastal Louisiana as others have left have no means to help their communities raise more money,” he

writes. “They themselves are desperately poor, their homes having lost so much value ... They would leave, too, if not for their inability to sell and get out.”

Columbia faculty and students are leading dozens of projects aimed at helping people whose homes have become unlivable because of climate change, both in the US and around the world. Some Columbia teams are supporting people whose entire communities may need to be relocated, such as residents of small island nations vanishing beneath rising seas and members of Native American tribes situated along sinking US coastlines. Others are helping groups of homeowners in the paths of wildfires and hurricanes develop strategies to protect their neighborhoods. Still others are creating new analytic tools that enable policymakers to make more equitable and effective decisions about how to serve constituents in threatened areas.

“In all of this work, our goal is to ensure that the people who are the most vulnerable to climate hazards are prioritized for assistance and have a voice in shaping the solutions,” says de Sherbinin, who chairs an interdisciplinary network of Columbia researchers who study issues related to climate migration and co-chairs a biennial conference on the topic. “If your neighborhood is constantly flooding and local officials are weighing whether to build a levee around it or encourage people to relocate, that's a decision that you should have a say in.”

Many of the Columbia faculty and students working on these issues say they are motivated by a desire to advance environmental justice. It is well known that socioeconomically disadvantaged people are highly vulnerable to the effects of climate change. In the US, this is true especially of Black, Hispanic, and Native American people, who, because of a history of racist housing policies, are more likely to live in poorly landscaped urban neighborhoods, flood-prone coastal plains, and areas without adequate groundwater. Experts worry that people

in such communities will also be short-changed in future infrastructure projects that aim to protect people against heat waves, floods, and other climate threats.

“People who are wealthy, highly educated, and politically well-connected have traditionally been more successful in securing public investments to protect their neighborhoods against natural disasters, even if other neighborhoods face greater risks,” says Paul Gally '83SIPA, '84LAW, an environmental-policy researcher and director of Columbia's Resilient Coastal Communities Project.

Gally's job is to break this cycle in the New York City region, specifically with regard to flood mitigation. The Resilient Coastal Communities Project, a partnership between the Columbia Climate School's Center for Sustainable Urban Development and the nonprofit New York City Environmental Justice Alliance, was launched in 2021 to promote equitable solutions to flood risks. It does so by conducting research on past flood-prevention projects and determining how such efforts can be made fairer and more effective in the future. Most importantly, it serves as a public watchdog over the US Army Corps of Engineers' massive effort to design and erect a new system of flood barriers in the New York metro area. The \$50 billion project, which is the largest of its kind ever attempted in the US, has been in the planning stages for years. The Corps has twice publicly unveiled proposals; its most recent plan, released in 2022, called for fifty miles of floodwalls, levees, and berms to protect New York City — or at least the most economically vital parts of it. The Corps, using a conventional cost-benefit methodology that prioritized the city's most valuable real estate, recommended leaving many low-income neighborhoods unprotected. The plan, which also called for unsightly, twelve-to-twenty-foot-high walls that would surround much of the city's waterfront, blocking street-level views of New York Harbor and the Hudson and East Rivers, was widely maligned. In response, Gally helped to lead a

coalition of community groups that, in partnership with state and city leaders, successfully petitioned the Corps to go back to the drawing board. Now the Corps is preparing to work up a third draft of its epic plan, giving equal weight to economic, social, and environmental considerations. To help keep the agency on track, Gallay and his colleagues at the Resilient Coastal Communities Project are helping to organize a new committee of environmental-justice advocates who will advise the government engineers on behalf of underserved communities throughout the region.

“One of the things we’ll be pressing for is protection against a broader spectrum

affecting some 2.2 million residents, and there is simply not enough money available to build seawalls around every neighborhood and to elevate every street and sidewalk that needs it. Consequently, the specter of mass relocations hangs over the planning process; other cities that have undertaken massive flood-protection projects, including New Orleans, have orchestrated the “managed retreat” of residents out of low-lying areas that were deemed impossible to protect. These relocations have generally been induced via voluntary property-buyout programs, although during the Trump administration, cities that received federal funds for buyouts were

he says. “And ensuring that people have affordable housing available to go to if they do agree to move is paramount.”

Gallay is concerned for renters, too. He notes that while public conversation about climate migration tends to focus on homeowners, rates of property ownership are quite low in cities, particularly in historically redlined districts where mortgage-lending practices once prevented Black and brown people from buying homes, accumulating wealth, and passing it down to their children. Yet kinship and social ties are extremely tight in many of these same neighborhoods, which can make the shuttering of apartment buildings terribly disruptive. “So



Climate and weather disasters like Hurricane Beryl, which struck Houston in January, are growing stronger and more frequent.

ONE THING THAT CLIMATE SCIENTISTS KNOW FOR SURE IS THAT AMERICA'S NATURAL ENVIRONMENT WILL BE UTTERLY TRANSFORMED BY MID-CENTURY.

of flood risks,” says Gallay, an attorney and a past president of the New York environmental organization Riverkeeper. He says that previous versions of the Corps’s plan focused exclusively on holding back coastal storm surges, but many New Yorkers also need protection against floods that regularly occur in their neighborhoods during heavy rainstorms or high tides. “We’ll also be calling on the engineers to expand the use of natural flood-protection measures like wetlands and reefs.”

But inevitably, no matter how well it is managed, the Corps’s ambitious project will be unable to protect every New York City block. The total area of the city that is vulnerable to flooding is expected to expand significantly by the year 2100,

told they had to back up the offers by threatening the use of eminent domain. Gallay says that few New Yorkers he has spoken to in vulnerable neighborhoods have expressed any interest in leaving their homes. “They’re more interested in finding creative ways to keep their neighborhoods safe,” he says. “They don’t want to talk about managed retreat. They want to talk about strategies to stay.”

Nevertheless, Gallay recently developed a set of guidelines for municipalities to follow should they choose to encourage residents to move out of high-risk areas. The bottom line: people whose future is at stake should be front and center at every stage of the planning process. “Nobody should be told, ‘Pick up and move.’ It’s not moral, ethical, or practical,”

a well-designed buyout program should ensure that if the owner of an apartment building is offered a buyout, protocols are in place so that tenants have their voices heard and their interests taken into consideration,” Gallay says. “They deserve a seat at the table.”

Several Columbia researchers have stepped out of their professional comfort zones to study climate migration. Marco Tedesco, a prominent glaciologist known for his groundbreaking work on the physical dynamics of melting ice sheets, remembers the exact moment he decided to broaden the scope of his research and investigate how rising sea levels and other climate hazards are affecting US population dynamics. While driving to work one morning in

the spring of 2021, he heard an NPR segment about “climate gentrification,” which is said to occur when wealthy people move out of at-risk areas and into nearby neighborhoods that were previously considered less desirable, driving up rents and pricing out poorer longtime residents. “There was anecdotal evidence that this was starting to happen but no hard data to prove it,” Tedesco says. “I thought to myself: I’ve spent decades studying the long-term impacts of ice melt and rising seas, but there are people being harmed right now. I have to help them somehow.”

Over the next few months, Tedesco developed a novel analytic tool that

ground a few blocks inland. “Traditionally, these were places where people who couldn’t afford to live along the coast had settled,” Tedesco says. “But as floods have worsened everywhere else, they’ve come to be seen as prime real estate.”

Tedesco has worked with community leaders in Miami, New York City, and several other cities to explore how they could use SEPPER to advocate for policies that would protect people against displacement. He’s even created a special version of the tool for New York, which he hopes city officials will use to identify neighborhoods where affordable-housing investments and other initiatives are needed to stabilize at-risk residential

ers in low-income countries tailor their agricultural strategies to new climate conditions. But after watching Hurricane Sandy devastate coastal communities in New York and New Jersey in 2012 — and seeing many affected homeowners stubbornly rebuild despite climatologists’ warnings of worse catastrophes to come — she began conducting research stateside as well. She wondered: how exactly do US coastal residents perceive their own climate risks? Do they have access to the information they need to make good long-term decisions? If not, what’s the best way to get it to them?

Madajewicz has been conducting studies in oceanfront communities

**STATE AND LOCAL GOVERNMENTS
DON'T HAVE THE RESOURCES
TO BUILD SEAWALLS
AROUND EVERY
SEASIDE TOWN.**



Neighborhoods surrounding New York City's Jamaica Bay now routinely flood during full and new moons, when tides rise higher than usual.

enables researchers to identify neighborhoods that are especially vulnerable to climate gentrification and other forms of climate displacement. The Socio-Economic, Physical, Housing, Eviction, and Risk (SEPPER) dataset, as it is called, brings together huge amounts of information about climate hazards, real-estate trends, eviction rates, and residents’ demographics and housing situations in every US census tract. Tedesco made SEPPER freely available online in late 2021 and soon after published a case study, based on his own analysis of data from Miami showing that climate gentrification is real: as flood risks have increased on the Miami waterfront, rent prices and evictions have surged in low-income districts perched on higher

communities. “There also has to be close monitoring of evictions, to make sure renters aren’t getting kicked out of their homes improperly,” he says.

Not all owners of waterfront properties are affluent would-be gentrifiers, though. In fact, in many US coastal towns and cities, working-class districts occupy long stretches of shoreline. Malgosia Madajewicz, an economist at the Columbia Climate School’s Center for Climate Systems Research, is determined to make sure that people in these neighborhoods are informed about climate risks. An expert on how people perceive information about climate change and incorporate it into their decision-making, Madajewicz has spent much of her career helping farm-

along the Atlantic Coast, from Long Island to Virginia, ever since. Among her insights: most coastal residents badly underestimate the property damage they will experience as a result of rising sea levels. “Ten or fifteen years from now, the pace of sea rise is going to accelerate, which isn’t widely understood,” she says. By mid-century, she explains, many homes that have rarely if ever flooded in the past are going to be inundated regularly, possibly every year. “It won’t take huge storms like Sandy to do it. Much smaller storms will be enough.”

Few coastal residents appreciate the risks they face, Madajewicz says, because detailed information on the topic is not readily available. Government-issued flood maps show how high floodwaters

NATHAN KENSINGER

have risen in the past but not how climate change will turbocharge future disasters. And public-outreach campaigns aimed at educating homeowners about climate threats rarely include the type of practical information that is likely to alter people's behaviors, like estimates of the long-term financial cost of living in a hazard zone, she says.

To fill the gaps, Madajewicz and several Columbia colleagues are developing new types of outreach materials with clear, practical, and science-based guidance for homeowners in flood plains. To make sure the materials resonate, the researchers are creating them in partnership with representatives of those communities. "We're focused on helping coastal communities with large numbers of low-income and middle-income homeowners, because they often have the least access to scientific information," Madajewicz says.

An ongoing project that her team is leading on the socioeconomically diverse Rockaway Peninsula, along the southern edge of Queens, illustrates the power of their approach. Homeowners in the area, who are among the most vulnerable in New York City to storm surges and flooding, have long viewed their exposure to the elements with a mixture of angst and resignation. They're accustomed to floods coming every few years and with them tens of thousands of dollars in repair costs, even with flood insurance, and they know that this is expected to happen more frequently in the future. But they have only a sketchy idea of how rising sea levels will change their lives and how to prepare. They don't want to leave the neighborhood, where many of them have deep family roots, and few can afford to elevate their homes' foundations for \$150,000 or more. So they do nothing. They wait and see. "This is a problem, because there's a big gap between their perceptions of the risks they face and the risks themselves," Madajewicz says. "There's a real lack of urgency."

The Columbia researchers recently informed Rockaway residents about

their financial vulnerability for the first time. Such information didn't exist before; Madajewicz and her colleagues created it by combining past flood-recovery data from the neighborhood with the latest climate and flood models. They determined that over the next thirty years a typical Rockaway family living in a low-lying two-story house that is worth about \$500,000 can expect to be flooded out of their home twelve to fifteen times and incur nearly \$2 million in damage. "People's jaws just dropped. They couldn't believe that was even possible," says Madajewicz, whose team distributed the information online. The researchers also detailed a wide range of flood-proofing options appropriate for homes on the Rockaway Peninsula, including a lesser-known method of filling one's basement with sand and moving equipment like boilers, hot-water heaters, and circuit boxes upstairs. "That's cheaper than elevating the house and dramatically reduces the recovery costs," says Madajewicz.

And the researchers nudged residents to take a hard look at their future on the peninsula. Before investing large sums of money in flood-proofing one's home, they write in the guidebook, residents ought to ask themselves: do I foresee living in Rockaway decades from now? The Columbia researchers noted that the Corps's eagerly anticipated flood-protection project may feature a storm-surge gate at the mouth of Jamaica Bay that will only be closed during major hurricanes, thus providing Rockaway residents little if any protection against the types of routine storms that pose the greatest threat to their finances over the long run. Of course, it is possible, the researchers write, that government agencies will ultimately fund the construction of additional flood barriers that will ensure Rockaway's future as a thriving beach community. But it is also conceivable that no additional public investments will materialize and the peninsula will become a water-logged ghost town. "Your guess is as good as anyone's at this point," they write.

Since Madajewicz and her colleagues began distributing this information in Rockaway in late 2021, they say, study participants have been abuzz with speculation about the neighborhood's future and how they should prepare. Some are considering filling in their basements, gutting their ground floors, or implementing other more affordable flood-proofing tricks. "Others are talking for the first time about possibly relocating," says Madajewicz.

The Columbia researchers are now planning a follow-up study to see if their initiative is influencing people's decisions. But they say that simply sparking conversations among residents is progress. In the past, people in Rockaway reported not thinking much about rising sea levels — ironically, because they regarded the problem as too big and overwhelming to wrap their heads around. "When we would ask people how they were preparing, they'd say, 'There's nothing we can do. The government will need to solve this,'" says Madajewicz. "They felt powerless." Now, by contrast, "people are becoming more engaged and motivated to take responsibility for their futures."

Madajewicz says that millions more Americans living on coastlines, in the path of wildfires, and in other threatened areas will soon need to find the same resolve. And she hopes that her research team, by developing communication strategies that could be adopted by other educators and activists for use in their own communities, will ultimately benefit people across the country. "People in the Rockaways are on the front lines of climate change in the US," she says. "They're confronting questions that many others will soon face, if they aren't facing them already: Is my home safe? Will the government help me? Should I move? There are no easy answers. But if scientific information is made available to people in ways that resonate with the real-world decisions they're making, they'll be able to navigate the uncertainties. And everybody deserves to acquire the knowledge they need to protect themselves and their families." 📖



1A

THE SECRET-KEEPER OF New York

Kenneth Cobb '78GSAS knows where
all the files are buried

By Paul Hond

PHOTOS BY FRANKIE ALDUINO

Nearly every day for more than forty years, Kenneth Cobb '78GSAS has put on a jacket and tie, packed his lunch, and taken the subway from his home in Morningside Heights down to the Surrogate's Courthouse at 31 Chambers Street. The building, a 1907 Beaux Arts masterwork with a Siena-marble atrium, opera-house staircases, arched entranceways, and a vaulted ceiling with gold and blue mosaics, houses the New York City Department of Records and Information Services (DORIS), where Cobb is assistant commissioner. All New York City government records pass through his office.

Cobb, seventy, is a gentle-spoken, dedicated public servant who is forever delighted by the secret treasures and surprises of the vast collection. He came to DORIS as a graduate-student volunteer in 1977, and he has never left. In 2005 he became assistant commissioner, tasked with overseeing the endless paper trail of New York: hundreds of miles of boxes, the pulp and ink of fifty-odd city agencies — the DAS' offices, the courts, the education department, the mayor's office, the NYPD, the FDNY, the parks department, and dozens more — as well as birth, death, and marriage records stretching back almost four centuries.

"The minute the Dutch colonists got off the boats," Cobb says, "they began keeping records. Whatever they were doing — buying and selling property, assaulting each another — they wrote it down." This habit only grew as the city became British and then American.

By 1977 the "paperwork monster," as City Council president Paul O'Dwyer once called it, was "crowding bureaucrats out of their offices." To deal with this beast, the city created DORIS.

As Cobb explains, DORIS brings together three key city entities: the Municipal Library, which has books and other materials related to city agencies and institutions; the Municipal Records Management Division, which stores the bulk of the city's records in warehouses in Queens and Brooklyn; and the Municipal Archives, which retains records that Cobb's team has judged to have permanent historical value, and thus be of interest to researchers. (About 10 percent of all city records are in the archive.) Supervising the record-appraising process is a big part of Cobb's responsibility, along with managing digitization projects, negotiating licensing agreements for the use of DORIS materials, conducting research for government offices, and — his favorite part — assisting patrons.

"I help people find what they're looking for — maybe it's the marriage certificate of their great-grandparents or an old court record — and then I help them interpret it," Cobb says. "They get so excited. It's so powerful for them to see the actual document."

On a recent Tuesday, Cobb appears in the marble atrium to give a reporter a tour of DORIS. The first stop is a ground-floor public room with tables and computers where people can retrieve New York City birth, death, and marriage records. These are the records that people ask for the most, says Cobb.

"This is where patrons used to come to do family-history research," Cobb says. "In the past they would have needed to look at microfilm, mostly. But eventually we digitized those records. And then in March 2022, we put them online for free." Cobb chuckles at the unintended consequence of this technology. "Now we're having to rethink this space."

But not everything at DORIS is digitized, and in the Municipal Library, on the other side of the atrium, patrons sit at tables and look through books and files brought out to them by a librarian. Cobb goes in and stops to admire a long rectangular drawing on the wall: it's an 1855 topographical survey map for

a proposed Central Park, dotted with farms and settlements.

One of DORIS's top-drawer collections is the 3,300 nineteenth-century drawings of the future park, created to help sell the outlandish idea to the city. Cobb considers them works of art. They also tell their own stories. "Notice that in this drawing, the park cuts off at 106th Street, not at 110th. So what happened? Well, the surveyors later realized that the topography was so rocky past 106th Street that it could never be developed. It was better to make it part of the park."

of old reports from Brooklyn agencies (Brooklyn was an independent city before the consolidation of 1898), Cobb extracts a bound volume from the Commissioners of City Works, which contains data and drawings for such things as the latest sewer technology. "Look at this beautiful cover," Cobb says. It's tortoise green with black filigree, dated 1877. "That's before the Brooklyn Bridge was finished." Cobb often refers to the great structure of granite towers and steel cables looming just outside his office. At DORIS, the bridge is a dominant presence, and Cobb thinks about it a lot.

and twentieth centuries, Cobb takes out a box on Mayor La Guardia. The label says "Nazi Protest Meeting." "Once," recalls Cobb, "a patron saw this and said, 'Nazis? That's a European thing in the 1930s. What does it have to do with New York City?' I said, 'Let's open the box.'"

Cobb sets the box on a table and opens it. "This one turned out to contain letters, mostly from German-Americans. Here's one from 1934: 'Your Honor, [as an] American citizen resident in the city, I protest against your unfair tax on Germany and its duly elected Chancellor, Adolf Hitler.' That's in 1934. La Guardia was an extraordinary mayor in many ways, and one was that he was very aware of what was going on in Europe — he was speaking out, urging boycotts, and holding rallies — long before anybody was paying attention."

Cobb moves from mayors to crime, declaring that DORIS has the most comprehensive collection of records on the administration of criminal justice in the English-speaking world, dating from the 1600s to the 1980s. He pulls down a random box of Bs from 1892 (the files are arranged alphabetically by defendants' last names), and the ghosts of tenement-and-typhus New York float up: here are accused pickpockets, thieves, violators of liquor laws, and keepers of houses of ill repute, their alleged misdeeds handwritten on yellowed cards. Cobb thumbs through the names and exclaims at the number of women: Rose, Ruby, Sadie, Kate, Matilda, Mary. But most of the Bs are men. "Oh, here we go: Robert Buchanan, tried and convicted of murder in the first degree." (A search of another archive, the Internet, reveals that Buchanan, a doctor, was found guilty of murdering his wife with morphine — one of the first cases to rely on forensic science — and was electrocuted at Sing Sing. This underscores Cobb's remark that "each one of these little packets is a whole little drama.")

Then there is Charles Bush, accused of grand larceny for stealing a watch and chain worth thirty-five dollars. His file includes a letter to the judge from his attorney, vouching for his character



Left: Kenneth Cobb in the stacks of DORIS. Right: The archive includes (from top) a 1924 photo of Riverside Drive at W. 165th Street; the marriage certificate of Franklin D. Roosevelt '08HON and Eleanor Roosevelt, witnessed by President Theodore Roosevelt 1899HON; and original Dutch records, vol. 1, 1647–56.

Cobb's brain is filled with this sort of lore, a side effect of his daily engagement with documents churned out by the colossal machinery of local government. He turns and goes through a door into the library stacks, which are packed with books, annual reports, and vertical files of pre-Internet newspaper and magazine clippings. Stopping at a shelf

He proceeds from the library into the atrium, where afternoon light dapples the marble floor, and descends the staircase into the basement, to what he calls "the secret vaults" — the Municipal Archives. One room is filled with aisles and aisles of metal shelves holding thousands of white boxes. Stopping in front of mayoral files from the nineteenth

“upright and honorable in every respect”). Nonetheless, Bush was convicted and sent to the state penitentiary. Says Cobb, “If you happen to be a descendant of this man, you would be thrilled to find this.” The same applies to James Buckley, age nineteen, a laborer living at 269 W. 124th Street, who wrote “I am not guilty” on his court questionnaire.

“There’s a good chance,” says Cobb, “that this record of poor James Buckley is the only record of his existence. James Buckley did not write a diary that you can find in a library. That’s really the value of this stuff: it tells you that these people existed, that they lived.”

Cobb grew up in Poughkeepsie and studied economics at SUNY Albany. But he’d always loved history, and in the fall of 1977 he entered Columbia’s master’s program. One of his classes was Kenneth T. Jackson’s New York City seminar. That October, when the Yankees won the World Series and the Ramones played CBGB and Congressman Ed Koch campaigned for mayor, Jackson took the class downtown to tour the Municipal Archives.

At the time, the archive was located at 23 Park Row. Cobb had never been in an archive, but he could feel a current running through those stacks of boxes. At one point during the tour, Jackson gave his students a choice: they could either write a paper or volunteer at the newly established DORIS. Cobb perked up. He didn’t see himself becoming a professor and often wondered what other jobs were out there for history lovers. He raised his hand.

Cobb’s services were welcomed at DORIS. He was assigned to help process records from the Department of Buildings that dated back to the 1860s. If you wanted to build something in New York, you had to send the department your rolled-up plans. These fragile scrolls were the recipe for the built environment, the very building blocks of New York real estate. Cobb found the whole thing so fascinating that he applied for an internship, which led to a part-time job, which led to his taking the civil-

service exam and getting a full-time position. He followed DORIS through two moves, first to the Tweed Courthouse at 52 Chambers Street and then, in the early 1980s, across the street to the Surrogate’s Courthouse.

The Department of Buildings records are one of DORIS’s most popular collections. Andrew Dolkart ’77GSAPP, a professor of historic preservation at Columbia’s Graduate School of Architecture, Planning, and Preservation, has been using it since the 1970s, when he was on the research staff of the Landmarks Preservation Commission, writing landmark designation reports. “You always want to know who the architect of the building is, the date of the building, and who built it,” says Dolkart. “The Municipal Archives has something called docket books, which contain a chronological list of every building application. You can go down and find all the basic information about a building.”

Dolkart and Cobb have worked together throughout their careers. “Ken is incredibly knowledgeable about the holdings,” Dolkart says. “There’s this vast array of records there, plus maps and atlases and photographs, and Ken really has his finger on all of it.”

Today, Dolkart sends his students to DORIS to research buildings through photographs and tax records from the Tax Department. And in his own recent work — he is writing about the garment industry — he has been looking at records of garment factories. “Not only does Ken know the collection,” says Dolkart, “but he is enthusiastic about sharing it, which is important. Not all archivists are like that. Ken really loves what he does.”

Last year, in recognition of this devotion, the Fund for the City of New York, a nonprofit created by the Ford Foundation in 1968, awarded Cobb its prestigious 2023 Sloan Public Service Award, which honors civil servants “who exhibit an extraordinary level of commitment to the public.”

The award is well deserved, but the unassuming assistant commissioner

would rather talk about that bridge. DORIS, he says, holds all the original technical drawings for the Brooklyn Bridge: a spectacular trove of ten thousand items rediscovered in 1969 in one of the city’s carpentry shops in Brooklyn. The drawings date from the late 1860s (construction began in 1870 and was completed in 1883), and many are signed by bridge engineer Washington Roebling. As with the Central Park drawings, Cobb considers them to be artworks, and in 2021 DORIS received a federal grant to preserve them. Today, in DORIS’s conservation lab, conservators work to clean, flatten, and mend these delicate artifacts, the largest of which are more than fifteen feet long.

In the same room, against a wall, stands an enormous cabinet — a safe — and this is where Cobb concludes the tour. The vault is so big that Cobb has no idea how it got there and jokes that the building must have been constructed around it.

He unlocks the cabinet and opens the doors, revealing shelves of boxes marked “Original Dutch Records.” These are divided by periods (vol. 1, 1647–56; vol. 2, 1656–60; vol. 3, 1660–62, and so on). Here lie the oldest items in the archive, the elemental matter of the city’s bureaucracy: reams of pages of council minutes, proceedings, and resolutions, created in New Amsterdam and written by hand in seventeenth-century Dutch (they have since been translated into English). Cobb takes out one of the books and opens it. The pages are dense with ink, fashioned into an elegant script no longer written.

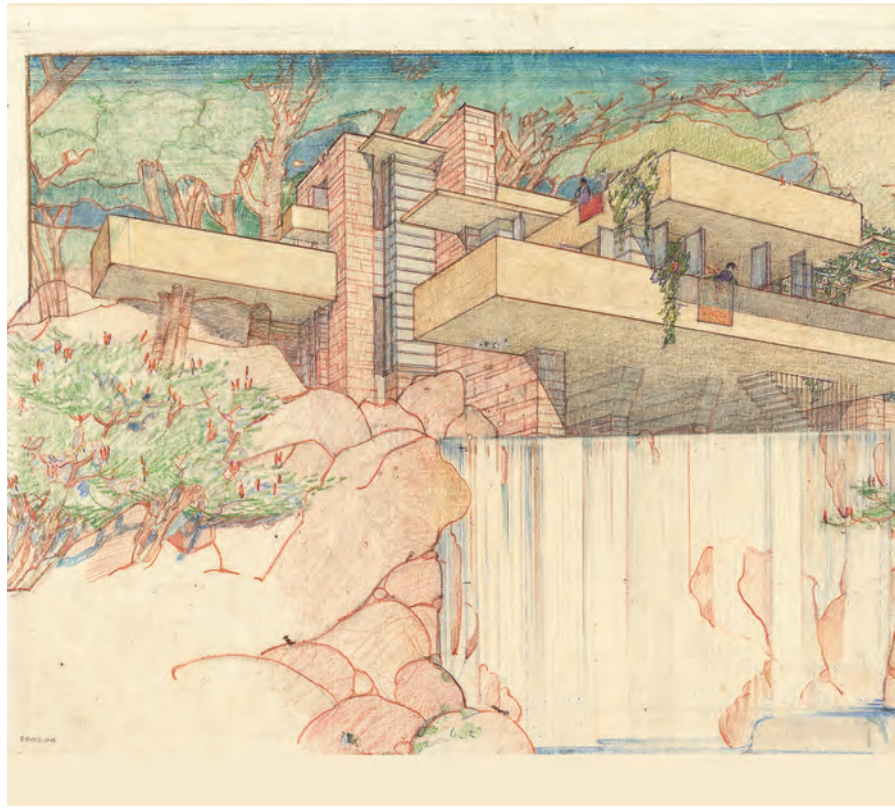
This primary-source evidence of European settlement on the island of Manhattan, beginning with the year of director-general Peter Stuyvesant’s arrival in 1647, forms an instant bridge across time. And it induces a silence that Cobb, after a moment, ventures to fill.

“You can see why, if you’re interested in New York City history, this is where you want to be,” he says. He closes the book, puts it away, and closes the safe. “That day in October 1977 when I first volunteered here — that was a lucky day for me.” ▣

COOL COLLECTIONS TO SEE ON CAMPUS

Discover some of Columbia's most fascinating (but lesser known) archives and art spaces

Visitors hoping to see art on campus usually make their way to the Lenfest Center's Wallach Art Gallery. With a full schedule of world-class exhibitions and a range of events and programs, it's Columbia's best-known public visual-arts space. But the University has plenty of other gems on display — from fascinating literary ephemera to blueprints for some of New York's most beloved buildings to an archive of dirt that just might save the world. You only need to know where to look.

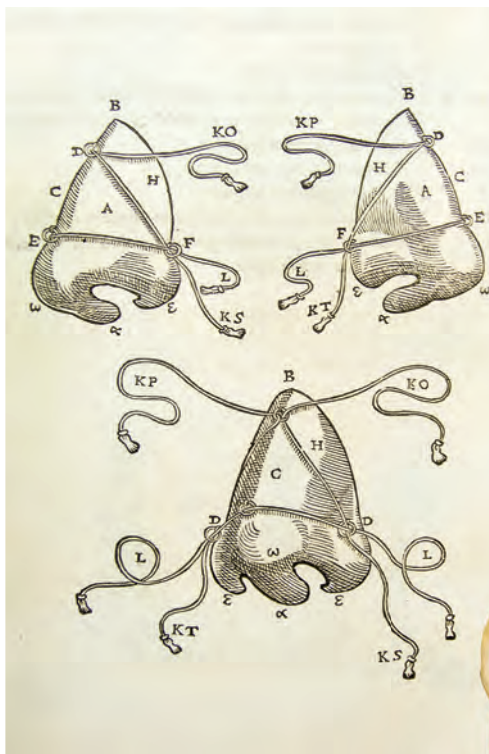


TOP: FRANK LLOYD WRIGHT FOUNDATION ARCHIVES; THE MUSEUM OF MODERN ART / AVERY ARCHITECTURAL AND FINE ARTS LIBRARY; BOTTOM ROW: LEN SMALL

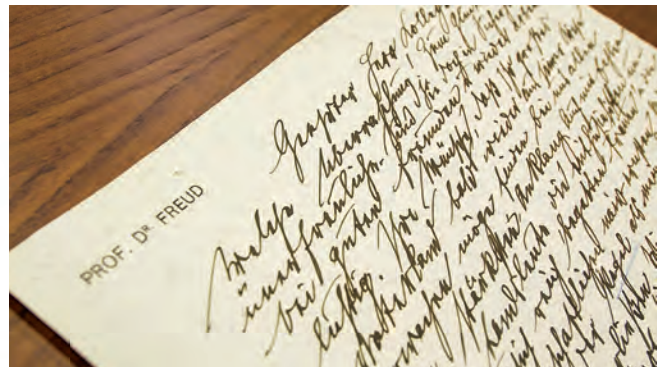
Where to See an Elizabethan Nose Job

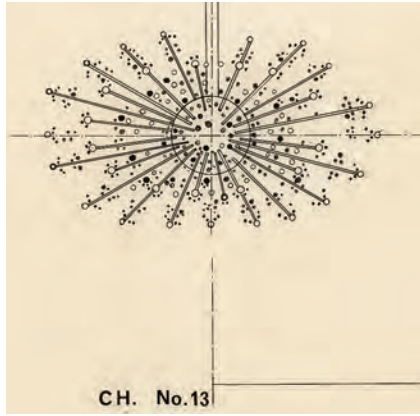
LONG HEALTH SCIENCES LIBRARY The Archives and Special Collections department at Columbia University Irving Medical Center's Long Health Sciences Library houses over 27,000 books, journals, and photographs covering the history of health sciences dating as far back as 1476. You can read the letters of Florence Nightingale, the founder of modern nursing, or delve into Sigmund Freud's personal library. But perhaps the most unusual resource is the Jerome P. Webster Library of Plastic Surgery — the world's most comprehensive collection on the subject. There are seven first-edition copies of Gaspare Tagliacozzi's 1597 treatise *De curtorum chirurgia per insitionem*, the earliest published work on reconstructive surgery, and thousands of books, photographs, and drawings documenting the centuries of plastic surgery that followed.

- *The Archives and Special Collections are accessible by appointment only.*



Above: Illustrations of a nose skin graft from Gaspare Tagliacozzi's sixteenth-century treatise on plastic surgery. Right: A sculpture of Jerome P. Webster crafted by members of the Class of 1943. Far right: A letter from Sigmund Freud.





Left: Drawing of Frank Lloyd Wright's Fallingwater.
 Top: Rendering of a Lincoln Center chandelier.
 Bottom: Penn Station under construction.

A Master Architect's Plans

AVERY ARCHITECTURAL AND FINE ARTS LIBRARY

Whether you're bonkers for Beaux Arts or mad for mid-century modern, the basement of Avery Library is a treasure trove of architectural wonders. The crown jewel of the collection is the complete paper archives of Frank Lloyd Wright — 23,000 architectural drawings, over 50,000 photographs, more than 140,000 letters, and 2,785 manuscript drafts — which Columbia acquired in 2012. But Wright's work is in good company at Avery, which holds the legacies of a pantheon of American architectural genius. Make an appointment to get a close-up look at Wallace K. Harrison's drawings of Lincoln Center or the original renderings of Penn Station, designed by McKim, Mead & White. You can also drop by anytime to check out notable pieces that include blueprints for Wright's Fallingwater, on display in the hallway outside the Drawings and Archives Room.

- *The Drawings and Archives Room is located on the second floor of Avery Library. The archives are available by appointment Tuesday through Friday, 1:00 p.m. to 4:00 p.m. As of August, the Frank Lloyd Wright Digital Archive is online.*



Above: Students use an etching press at the LeRoy Neiman Center for Print Studies. Right: *Tie Dye Self Scarf*, by Heidi Howard '14SOA.

A Print Nerd's Dream

LEROY NEIMAN GALLERY For nearly thirty years, the LeRoy Neiman Center for Print Studies has been a place for students and professional artists to work side by side and share their art with the community. The grant that established the print shop also included money for an adjacent gallery space, which hosts a variety of exhibitions throughout the year, showcasing work by School of the Arts faculty and students,

as well as pieces produced by guest artists. Stop in this fall to catch an exhibit of paintings by Heidi Howard '14SOA, and be sure to peek into the windows of the not-for-profit print shop to see artists at work.

- *The LeRoy Neiman Gallery is located on the first floor of Dodge Hall and is open Monday through Friday, 9:00 a.m. to 5:00 p.m.*

TOP: AVERY ARCHITECTURAL AND FINE ARTS LIBRARY; BOTTOM LEFT: COLUMBIA UNIVERSITY; BOTTOM RIGHT: PHOTO BY CHARLES BENITON



Patrons attend a gallery opening at the Italian Academy.

The Quickest Route to Europe

THE ITALIAN ACADEMY If a ticket to Rome isn't in the cards, then perhaps console yourself with a visit to the Italian Academy on Amsterdam Avenue. Founded as Casa Italiana in 1927, with funds raised at a now-legendary thousand-person dinner of prominent Italian-American New Yorkers, its gracious building has provided space for scholarship, a robust fellowship program, events, and exhibitions. In two distinct gallery spaces on the first floor, the academy hosts rotating exhibits from faculty, students, and fellows. This fall, a photography and video installation provides a fascinating introduction to the archaeological site of Su Nuraxi di Barumini, in Central Sardinia, which features one of the best-known examples of a *nuraghe*, a distinctive Bronze Age defensive structure. In the gallery next door, get a quick introduction to the academy's history through a display of photos, including one of the massive dinner party that started it all.

- *The Italian Academy's ground-floor galleries are open to visitors Monday through Friday, 10:00 a.m. to 4:00 p.m. Buzz at the street entrance for access.*

Where to Dig in the Dirt

LAMONT-DOHERTY CORE REPOSITORY

Cross over the George Washington Bridge and head north along the Palisades to find one of Columbia's most unusual libraries. The Lamont-Doherty Core Repository houses over 20,000 marine sediment and rock samples, including specimens from every major ocean and sea on earth. Curator Nichole Anest — or “the mud librarian,” as she calls herself — says that these unassuming tubes of dirt may be “the keys to understanding climate change.” The sediment cores are made up of the debris that settles on the ocean floor, including the remains of microscopic organisms. While similar sediments exist on land, underwater specimens are far more valuable, because they've been untouched by weather and human wear and tear. By studying marine sediment cores, scientists can not only learn about the history of the earth's climate dating back thousands of years but make predictions about our climate future.

- *The Lamont-Doherty Core Repository hosts visits from school groups, special-interest groups, and the general public. To schedule a visit, contact corelab@ldeo.columbia.edu.*



Visitors examine core samples at the Lamont-Doherty Core Repository.

TOP: ITALIAN ACADEMY; BOTTOM: LAMONT-DOHERTY EARTH OBSERVATORY



John James Audubon's *The Birds of America*.

The Room Where It Happens

RARE BOOK AND MANUSCRIPT LIBRARY Do you want to see a copy of the King's College roster from 1774, featuring future Founding Father Alexander Hamilton? Or read letters by his rival Aaron Burr? Perhaps you're in the mood for a laugh, and the very first *Mad* magazine fold-in is what you're after. Maybe you're a Broadway fan wanting to check out Patti LuPone's scrapbook collection.

You can find it all on the sixth floor of Butler Library, where the Rare Book and Manuscript Library boasts an enviable collection of primary-source material. You'll need to make an appointment to see most of the holdings. But for a more casual experience, the exhibition cases outside the reading room showcase plenty of highlights.

Stop by any time the library is open to see some of the permanent display pieces — like a stunning original folio by John James Audubon or the mantlepiece from the room where Edgar Allan Poe composed “The Raven” (chamber door unfortunately not included). Other cases might highlight items from the library's extensive collection of comic books and graphic novels, such as a display of “fanzines” acquired in 2020.



A copy of the letter Alexander Hamilton wrote to his wife Eliza before his fateful duel with Aaron Burr in 1804.

The library is currently featuring the exhibit “Extras Between the Sheets,” a selection of unexpected items accidentally left in books or boxes being transferred to the library. There are pressed flowers and feathers but also an invitation to Aaron Copland's birthday party, a Christmas card with an etching of Sing Sing prison, and, perhaps most surprising, a prescription made out to Tennessee Williams for Seconal, the very drug that would end up killing him.

● *The Rare Book and Manuscript Library is on the sixth floor of Butler and is open Monday through Friday, 10:00 a.m. to 4:00 p.m. Most materials can be seen by appointment only.*



A “nasty card” by Al Jaffee from *Mad Follies*.



A student exhibit at the Macy Art Gallery.

The Best-Kept Secret

MACY ART GALLERY Tucked away in the maze of interconnected Gothic halls at Teachers College is a large suite of windowless rooms that Jennifer Ruth Hoyden calls “Columbia's best-kept secret.” Hoyden, a doctoral candidate in the college's art and art education program, is the coordinator of the Macy Art Gallery, one of Columbia's oldest and most storied exhibition spaces.

The gallery was established in the early years of the twentieth century by fine-arts department chair Arthur Wesley Dow, who envisioned a studio and gallery existing side by side. He wanted to teach his students — including the then unknown artist Georgia O'Keeffe — to understand the relationship between making and displaying art.

Today those lessons live on. The Macy Art Gallery is staffed by doctoral students, who are responsible for selecting, curating, installing, and promoting the shows. And while the gallery does display work by faculty, alumni, and the occasional non-Columbia-affiliated artist, the bulk of the exhibitions are student work. With shows featuring advanced pieces from Teachers College's studio courses and winners of the school's annual Myers Art Prize, the gallery is one of the best places on campus to see innovative student-made art.

● *The Macy Art Gallery is located on the fourth floor of Macy Hall and is open Monday through Friday, 11:00 a.m. to 6:00 p.m., and by appointment.*





THE PSYCHEDELIC PRESCRIPTION

AS NEW CLINICAL TRIALS SHOW THAT PSILOCYBIN AND LSD MAY HELP TREAT DEPRESSION AND ANXIETY, MENTAL-HEALTH PROVIDERS GET READY FOR A REVOLUTION BY PAUL HOND

Earlier this year, the American Psychiatric Association conducted its annual poll on anxiety. Americans, the survey found, are more worried than ever. They're worried about the economy, politics, gun violence, runaway technology, and climate change, on top of the usual angst over relationships and health. They're also more depressed: according to the Centers for Disease Control and Prevention, major depressive disorder, also called clinical depression, afflicts sixteen million people a year and is a leading contributor to other illnesses and to disability, absenteeism, and substance abuse. Anxiety and depression often overlap, and in the past twenty years prescriptions for antidepressants have risen nearly 50 percent.

"It's a massive problem," says David Hellerstein, a research psychiatrist at the New York State Psychiatric Institute and a professor of clinical psychiatry at CUIMC. "Yet in the last several decades, there's been a significant underinvestment in solutions."

Hellerstein is one of a growing number of clinicians who are investigating a potential answer: the little understood, highly promising, very illegal class of drugs known as psychedelics. These substances, which include psilocybin (a hallucinogenic compound found in more than two hundred species of mushrooms) and LSD (derived from the ergot fungus, which infects grains such as rye), deeply alter perception and mood, and new clinical trials suggest that they may help a host of

psychological conditions, including depression and generalized anxiety disorder — with only minor side effects and virtually no risk of addiction.

As expectations grow for the medical acceptance of these drugs, Columbians are helping to shape the psychedelic-therapy future. They are conducting clinical trials and studies, synthesizing new compounds, training students in psychedelic-assisted therapy, and insisting that the emergent industry be guided by ethics, sound science, equity, and respect for the wisdom and welfare of Indigenous communities that have used psychotropic plants for millennia.

Hellerstein became interested in the medical possibilities of psychedelics in the 1990s and is now a site principal investigator on the largest analysis of a psychedelic drug in history: an international multisite study of psilocybin for treatment-resistant depression, sponsored by the biotech company Compass Pathways. Because the US government lists psychedelics as Schedule I drugs — meaning they have "no currently accepted medical use and a high potential for abuse," according to the US Drug Enforcement Administration — clinical trials are difficult to arrange. Thus the government and mainstream pharmaceutical companies have largely refrained from funding psychedelic research, leaving a few small biotech startups to raise money and navigate the regulatory maze. "You have to jump through a lot of hoops to get licensing to secure sourcing and storage of the drugs," Hellerstein says.

To be eligible for FDA approval, a drug must pass three phases of investigation, with increasingly large numbers of subjects, to establish its efficacy, side effects, and safety. In 2022, the *New England Journal of Medicine* published the results from phase two of the Compass Pathways study, which compared the effects of different doses of synthetic psilocybin on 233 people and found that the largest dose was the most therapeutic. “A day after treatment, there was a profound change in depression symptoms in the patients treated with the high dose of twenty-five milligrams,” Hellerstein says. “That’s really different from the SSRIs, such as Lexapro or Zoloft, which have a very gradual onset.”

SSRIs (selective serotonin reuptake inhibitors) are the most commonly prescribed medications for depression and anxiety. These drugs prevent neurons in the brain from reabsorbing serotonin, a neurotransmitter that regulates mood. It can take weeks or months before patients start to feel better. “With psychedelics, most studies have found improvement in just one or two treatments,” says Hellerstein. “And the effects can last for months. These are very rapidly acting drugs that have a major disruptive effect on brain activity.”

As Hellerstein explains, in people with depression there is often overactivity in parts of the brain that involve negative self-talk, so that they get stuck in a rut of despair, repeating bad thoughts like a broken record. “Psychedelics seem to scramble those neuronal connections and help people to skip over the grooves and move into new ways of thinking,” he says. “There’s more growth of connections between brain cells, whereas depression and other psychiatric disorders are characterized by fewer connections from one nerve cell to another.”

Whereas SSRIs work by gradually altering serotonin activity in the brain, psychedelics stimulate a subtype of serotonin receptors, the 5-HT_{2A} receptor (a receptor is a protein on the membrane of a brain cell), triggering a chain of chemical events inside the neuron. “These drugs have a different mechanism of

action than existing antidepressants,” says Hellerstein. “They seem to induce communication between different brain networks that do not normally talk to each other, so that the network connections that we have in normal life — you see a tree and think ‘tree,’ or you hear a horn and see a car and put it together in your brain to construct meaning — are scrambled. Instead, you may see sounds or hear colors or have other distortions of perception and thinking. This scrambling of connections causes these very profound, intense experiences during the trip. After the trip has faded, the patterns of brain connection can persist for days and weeks, and in some yet-to-be-understood way seem to have



David Hellerstein

a positive effect on mood and other psychiatric symptoms.”

The Compass Pathways study for treatment-resistant depression is now in phase three. But close on its heels in the race for FDA approval is the nonprofit drug manufacturer Usona Institute, which is in phase-three testing of psilocybin for major depressive disorder. Natalie Gukasyan, an assistant professor of psychiatry at CUIMC, was a co-investigator on the Usona study. She points out that what makes the psychedelics studies different from others, and so tricky to negotiate with the FDA, is that they include a psychotherapy component — an anomaly for an agency designed to assess food and drugs.

The trials typically work this way: after a lengthy screening process, people with depression participate in a several-hour preparatory session. Therapists talk with each participant about their case history and explain what to expect from the drug. Participants are then seated in a quiet, comfortable room and swallow a pill of synthetic psilocybin (or a placebo). They can put on eyeshades for darkness and headphones for music. The therapists then mostly “sit back and let the person have their experience,” Gukasyan says. “They monitor the person’s blood pressure and tend not to interfere with what’s going on. They’re just there to support them. It’s not unusual for the person to start talking or to seek some reassurance or comfort.”

After the treatment, participants attend a series of follow-up “integration” sessions in which they process the thoughts and feelings they had experienced while medicated. Gukasyan notes that what occurs in the integration visits depends partly on the style of the therapist. “We need some better research on what works in therapy,” she says.

Like the Compass Pathway trials, the Usona study has been promising: on average, participants who took the drug became less depressed than they had been and less depressed than those who got the placebo, and Gukasyan has led further research showing that these positive effects can last for up to a year. “The caveat there is that a lot of things can happen over the course of the year to keep those scores low,” says Gukasyan. “Some subjects go off to get their own therapy or go back into conventional treatment. But there’s at least some evidence that for a subset of people, the effects can be quite durable.”

Psilocybin isn’t the only hallucinogen in the spotlight. While depression gets the mushroom treatment, generalized anxiety disorder is being put, you might say, to the acid test.

Daniel Karlin ’01CC, ’05GSAS, chief medical officer for the pharmaceutical startup MindMed, recently led a twelve-week phase-two clinical trial for generalized anxiety disorder, a condition

affecting 6.8 million Americans and marked by obsessive and debilitating worry over small, everyday matters. The drug under investigation is arguably the most controversial of all psychedelics: lysergic acid diethylamide, or LSD. The MindMed study is the first trial for LSD in the US in more than fifty years.

First synthesized in a lab in the late 1930s, LSD, known to recreational users as “acid,” was a burning topic of psychiatric inquiry through the 1950s and early 1960s. But as it seeped into the general population and became synonymous with countercultural excess and paranoid freak-outs, the media began touting its dangers, real and invented. The US outlawed LSD in 1968, and in 1970 President Richard Nixon signed the Controlled Substances Act, which banned all psychedelics and ended further medical research. So strong was the backlash against LSD, with its anti-establishment and psychotic associations, that when researchers began reexploring psychedelics in the 1990s, starting with mescaline and psilocybin, LSD was still considered too hot to handle.

No longer. Karlin and his team of researchers tested the efficacy of LSD at four different doses and saw remarkable results. “The day after dosing, folks had significantly improved anxiety symptoms versus placebo,” Karlin says. “In the one-hundred microgram group we saw about 50 percent go into remission from their generalized anxiety disorder. And that remission persisted out to week twelve. So people went into remission earlier and generally stayed in remission through the end of the study.”

Unlike the psilocybin studies, the MindMed LSD trials, while closely monitored for safety, do not include psychotherapy. “In essence, there’s sort of an autotherapeutic process that occurs, so we didn’t do therapy,” Karlin says. “The process is more inward: people have this internal experience where they see themselves through a different lens.”

The buzz around these studies reflects a dramatic shift in attitudes about psychedelics, one driven by disparate voices, from military veterans suffering

from treatment-resistant depression and PTSD (earlier this year, the VA announced it would fund new research into psychedelics) to writers like Michael Pollan’s *8IGSAS*, author of *How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence*. In that book, which was published in 2018

and adapted into a Netflix series, Pollan consumes LSD and psilocybin, and his account of ego loss while under the influence may elucidate the high success rate of the clinical trials.

“When the ego dissolves,” writes Pollan, “so does a bounded conception not only of our self but of our self-interest. What emerges in its place is invariably a broader, more openhearted and altruistic — that is, more spiritual — idea of what matters in life.”

The term “psychedelic” was minted in 1957 by British psychiatrist Humphry Osmond, one of a small number of doctors who performed experiments with the drugs (he used LSD to treat alcohol addiction), which were new to Western medicine. LSD was first synthesized in 1938 by Albert Hofmann, a Swiss chemist who was trying to develop a drug to stimulate the circulatory and respiratory systems. In 1943, Hofmann accidentally ingested the substance and had such an incredible adventure that he began dosing himself intentionally and chronicling the effects (“Kaleidoscopic, fantastic images surged in on me, alternating, variegated, opening and then closing themselves in circles and spirals, exploding in colored fountains”).

Word of this magical drug spread to psychiatrists around the world, who took it themselves and cataloged their own response: feelings of connection to nature, intense perceptions of beauty, detached introspection, openness, loss of fears and anxieties, and spiritual elation.

They believed that these extraordinary effects could be harnessed for use in psychotherapy.

One of these intrepid psychiatrists was Sidney Cohen, who studied pharmacology at Columbia and conducted many LSD experiments in the 1950s. Cohen first tried LSD in 1955, advocated for psychiatric trials, and published several books

“PEOPLE HAVE THIS INTERNAL EXPERIENCE WHERE THEY SEE THEMSELVES THROUGH A DIFFERENT LENS.”

on the drug. Historian Benjamin Breen, a former Columbia postdoc and the author of *Tripping on Utopia: Margaret Mead, the Cold War, and the Troubled Birth of Psychedelic Science*, calls Cohen “one of the most consequential people in the history of psychedelic therapy.”

“Cohen was pretty open about using LSD and benefiting from it himself,” says Breen. “This was really important — the whole idea of a participant observer. He was trying to find a middle path where these substances would be legal but could be safely used with oversight. And he was also very open to the non-Western and nonscientific uses of psychedelics, which was unusual among white-lab-coat-wearing 1950s scientists.” Breen observes that the challenge of treating the mental-health effects of World War II on soldiers — what we now call PTSD — absorbed psychiatrists in an age before modern antidepressants. “Psychedelics were the shiny new thing, and LSD was one of the first substances to be seen as a cure for the age of postwar trauma and anxiety that we’re all still kind of living in.”

It was Cohen, Breen surmises, who introduced LSD to the playwright and politician Clare Booth Luce and her husband, Henry Luce, publisher of *Time* and *Life* — which led to plenty of psychedelic-positive press, most famously a 1957 first-person essay in *Life* called “Seeking the Magic Mushroom,” by R. Gordon Wasson 1920JRN. “We chewed and swallowed these acrid mushrooms, saw

visions, and emerged from the experience awestruck,” wrote Wasson, a vice president at J. P. Morgan who had traveled to a remote village in southern Mexico with his mushroom-hunter wife and a *Life* photographer — the original psychedelic tourists. There, a *curandera*, or healer, introduced them to an ancient religious rite unknown to the West. Nothing had prepared Wasson for what he called the “astonishing effects of the mushrooms,” which provided a “beatific sense of awe and ecstasy.”

But the popularity in the early 1960s of Timothy Leary, the Harvard psychologist who encouraged young people to “turn on, tune in, drop out,” raised alarm among doctors. Cohen, for one, worried that the drug was being mishandled

by recreational users who erroneously believed that simply by taking LSD and having “seen the glory,” they had nothing further to do. “LSD isn’t an end, it’s a beginning,” Cohen insisted at a talk at UCLA in 1966. “It’s an *opportunity* for change. It’s not change itself.”

Then there was Harold Abramson 1920CC, 1923VPS, a prominent New York allergist who wrote about the therapeutic benefits of LSD and who, as reported in Luce’s *Time* in 1955, hosted dinner parties topped off by a dose of the drug in a liqueur glass: “Instead of upsetting the subjects,” the article read, “it often helps them to recall and relive — in each other’s presence — experiences and emotions of childhood that previously had been too painful to face.”

But Abramson’s activities had another side. Abramson had worked on chemical weapons during the war, and now the CIA, in a Cold War *Spy vs. Spy* quest for a mind-control advantage against the Soviets, funded Abramson’s research on LSD (it was thought to hold promise as a truth serum). That research, some of which he carried out at Columbia, came to the attention of anthropologist Margaret Mead 1923BC, ’28GSAS, ’64HON, one of America’s best-known public intellectuals. Mead had been acquainted with psychedelics since at least 1930, when she attended a peyote ceremony with the Omaha tribe in Nebraska.

“Mead saw psychedelics as something that could help people to adapt to the rapid pace of modern life and to integrate different aspects of the culture,” says Breen. “She was seeking a conceptual vocabulary for psychedelics that didn’t just see them as traditional practices.”

Mead expressed strong interest to Abramson in trying LSD, but Breen hasn’t found definitive evidence that she went through with it. He speculates that Mead may have feared that secrets about her same-sex relationships might come out while she was drugged. That was apart from the legal risks: by the time Mead died in Manhattan in 1978, New York’s draconian Rockefeller drug laws were in effect, and anyone caught with as little as five milligrams of LSD — about fifty doses — faced a mandatory minimum sentence of one to eight years in prison.

THE SPIRITUAL ROOTS OF PEYOTE



For thousands of years, Indigenous people in Mexico have been harvesting psychedelic mushrooms and plants and ingesting them in religious ceremonies. One of these plants, peyote, a cactus native to northern Mexico, contains the hallucinogenic compound mescaline, which has long been central to rituals of the Wixárika people of the Sierra Madre Occidental mountains. Preserved peyote found in caves in Mexico has been carbon-dated to 4000 BC.

By the late nineteenth century, peyote, largely criminalized in North America (European colonists saw the rites as idolatrous, an attitude that persisted after independence), had spread to tribes in the US. In 1918, Indigenous peyotists in the Oklahoma Territory formed the pan-tribal Native American Church to give legal legitimacy to their ceremonies.

Meanwhile, Western anthropologists and physicians had discovered the plant’s psychotropic powers. “From the start, the Wixárika have taken in sick Westerners and researchers and taught them about peyote,” says Estrella Castillo ’19GS, a PhD candidate at Yale who studies the intersections of psychedelics, Indigenous knowledge, religion, and law. Castillo worries that the current hype around psychedelics is boosting demand for mescaline — at the expense of the Wixárika.

With Westerners, she says, “there is an extractive relationship, including the borrowing of cultural elements.” She adds that tribal elders are willing to share their knowledge, so long as the substance is not vulgarized through misuse.

But the biggest threat to the Wixárika, says Castillo, is the drug cartels that have infiltrated peyote farms in Mexico, speeding up the harvest to feed the black market. Castillo wants to see a more localized psychedelic ecosystem, with more medical research into LSD, which can be made cheaply in a lab. For her, peyote is no mere commodity.

“Peyote is a reinforcer of Indigeneity,” she says. “It connects Indigenous diasporic people like myself and gives us a way of remaining connected to the land of our ancestors.”

Though psychedelics are still illegal at the federal level, the glowing results of clinical trials across the psychedelic spectrum portend an array of FDA-approved treatments in the future. All of which leads to bigger questions: Who will have access to these treatments and who won’t? Who will benefit and who will be left behind?

For Heidi Allen, an associate professor at the School of Social Work, access and affordability are key. Allen, who studies health care among low-income populations, wants to instill social-work values in the profit-conscious world of

prescription-drug coverage and trendy therapies. “When you bring innovations in mental health into the US health-care system,” she says, “it can often widen existing disparities, which are even more pronounced when it comes to specialized mental-health care.”

Allen recently created the School of Social Work’s Psychedelic Therapy



Heidi Allen lectures at the Columbia School of Social Work.

Training Program — the first such program in the world to be offered within a graduate professional degree. Social workers play a vital role in mental-health care: they can provide talk therapy and are often on the front lines of mental-health interventions. Allen wants to prepare them for the psychedelic wave, to ensure that the new treatments aren’t confined to boutique medical clinics. “The people who need the treatments the most — even if they are poor or uninsured — should be first to receive them,” Allen says.

This fall, the program’s inaugural cohort of twenty embarked on a novel educational journey. Students take four electives focused on psychedelic-assisted therapy and must also complete a six-hundred-hour practicum in clinics in New York providing ketamine-assisted therapy, including Columbia’s ketamine program, which is led by Jeffrey Zabinski, the assistant director of interventional psychiatry at CUIMC.

Ketamine is not a psychedelic but rather an FDA-approved anesthetic. At smaller doses, it yields certain psychedelic effects and has become a last resort for patients who have fruitlessly tried

other treatments for depression. “Usually within the first four to six weeks we see a fairly good response for the majority of patients,” Zabinski says, “and a good number of them go all the way to remission.” Columbia’s clinic administers both a nasal spray (esketamine, a few molecules removed from ketamine) and intravenous ketamine infusions, which will give the

social-work students a fair idea of what to expect when full-fledged psychedelic-assisted therapy arrives. Zabinski, who in addition to an MD has a master’s in social work, welcomes the revolution.

“The hope is that patients who are suffering from conditions that previously were extremely difficult to treat will be able to access relief much more quickly,” he says. “The idea of having something you could do in an office-based setting that has a good safety profile and that reaches the level of effectiveness that we’re seeing in these clinical trials — that would be totally transformational.”

Meanwhile, the studies keep coming. At Columbia, chemist David Lankri, a researcher in the lab of chemistry professor Dalibor Sames, has synthesized the psychedelic compound found in the poison of the Sonoran Desert toad, which he believes could someday treat anxiety and depression without activating the brain’s psychedelic receptors (an alternative for those who would rather not visit the unknown interior). And Jae Sevelius, a professor of medical psychology who has studied the effects of psilocybin on long-term AIDS survivors, is conducting two new studies:

one on psychedelic drug use among transgender and gender-nonconforming people to explore how these substances affect identity and self-acceptance, and another on ketamine-assisted therapy in a group setting at the Columbia Department of Psychiatry.

As someone who treats vulnerable groups, Sevelius is especially sensitive to the concerns that troubled clinicians sixty years ago: that without regulation, underground demand for the drugs will increase, along with the risks posed by harmful additives, negative interactions with other medications, and difficult psychoactive experiences. “Because there has been so much coverage about the promise of psychedelics to treat these intractable mental-health issues — and because we have such a terrible mental-health-care system where people aren’t getting treatment — I worry that people will take these medicines on their own, or with someone posing as a psychedelic-assisted therapist, and not get the sort of guidance they truly need,” Sevelius says.

That worry is compounded by the likelihood that depression and anxiety rates won’t decline anytime soon. The long march of psychedelics to the verge of FDA approval comes at a time of widespread suffering, and Hellerstein hopes the government will help expedite psychedelic research by funding more robust clinical trials and exploratory studies, as it does for other drugs.

“Are psychedelics really as good as people believe they are?” Hellerstein says. “I would say that the question itself is an argument for government-funded studies, because if the drugs don’t work, or they’re toxic or cause other problems, that would be important to know. But they may also be paradigm-changing in terms of our understanding of effective treatments.

“So the National Institutes of Health should fund more of this research. And if the findings turn out to be less positive than we’d hoped for, that would be interesting too: the point is that you want really good research to find out the actual benefits and risks. You don’t want everything to be done by enthusiasts and proselytizers.”



John Kang and Julia Kang-Reeves

BILL WADSWORTH

THE BUSINESS OF BEAUTY

Alumni entrepreneurs are using their skin-care smarts to tap into a multibillion-dollar industry By Julia Joy

EARTH THERAPEUTICS

Bringing K-beauty innovation to essential spa products

John Kang '88CC, '91LAW had virtually zero experience with skin care when he began selling loofah sponges to Bed Bath & Beyond under the name Earth Therapeutics in 1993. He certainly didn't see himself becoming a leading beauty entrepreneur. But after quitting his budding law career to focus on the brand (an offshoot of his parents' importing business), the two-time Columbia graduate found an unexpected calling. "This was a total accident," Kang says. "There wasn't a lot of intention at the time, but here I am over thirty years later."

Today, Earth Therapeutics sells not only sponges but a variety of home-spa items, from hand cream to hair towels to "anti-stress" pillow mist. The brand, a mainstay of Ulta Beauty, Walmart, and other mass retailers, is especially known for its natural foot-care products. "I like to think I came out with the first foot lotion," says Kang, the company's president and CEO. "When I designed it twenty-five years ago, people were like, who the heck is going to buy foot lotion? But it turned out to be one of our absolute bestsellers."

Since launching that first moisturizing foot cream, Kang and his team have introduced an array of other pedicure products. "My personal favorites are the Sole Scrubber foot-wash mat used together with the foamy foot shampoo," says Julia Kang-Reeves '94GSAS, Kang's sister. Kang-Reeves, who earned a master's degree in classics from Columbia before joining the family business,

currently serves as Earth Therapeutics' marketing director.

As the Long Island-based company has evolved, Kang and his team have remained focused on the utilitarian nature of their beauty brand. "When I first started out, a lot of the products out there were based more on color and fragrance," says Kang. "I didn't want to do that. A product has to do what it says it's going to do: if it claims to heal cracked and dry feet, it's got to do that. How it looks and smells is secondary."

In recent years, Earth Therapeutics has integrated more Korean innovations

into its product line, whether through ingredients (seaweed, milkweed) or accessories (sheet masks, under-eye patches).

"Korean beauty is all about the ingredients: using less-harsh chemicals with an emphasis on healing," says Kang, who, along with Kang-Reeves, was born in

South Korea. "We're focusing now on the K-beauty segment of foot care with cutting-edge products like foot masks."

Kang-Reeves echoes the brand's ingredient-driven philosophy in her marketing and promotes Earth Therapeutics as high-quality but affordable and appropriate for a wide range of customers. "Over the past few years, beauty has become even more of a red-hot industry, fueled by trends and the influencer frenzy," she says. "But Earth Therapeutics is about more than beauty. We're a wellness brand offering reliable products for the entire body, yoked together by an ethic of quality self-care for all."



THE OUTSET

Giving clean, gentle skin care a celebrity glow-up

It's a problem familiar to many: dry, blemish-prone skin often made worse by creams and serums — even the expensive ones. For those with sensitive skin, finding the right cosmetic products can be a challenge. The Outset, a New York City-based beauty startup founded by two sensitive-skin sufferers, Kate Foster Lengyel '11BUS and actress Scarlett Johansson, aims to help solve this dilemma by making skin care cleaner, simpler, and less irritating.

"Sensitive skin is reactive," says Lengyel, a veteran of the cosmetics and fashion industries with an MBA from Columbia. "It's often the result of having a disrupted skin barrier, which is what keeps in moisture. Stress on that barrier can come from too many products, too many harsh active ingredients, or

allergens like fragrance, gluten, or nuts. We're trying to remove as many sources of irritation as possible with a less-is-more approach."

Since launching in 2021, The Outset has captured the attention of skin-care enthusiasts for its gentle ingredients and cruelty-free testing approach. "The secret sauce is our approach to hydration," explains Lengyel. "We use a proprietary botanical complex called Hyaluroset sourced from the seeds of cassia flower that's been proven to outperform hyaluronic acid." Earlier this year, the company introduced a mineral-based sunscreen called



Hydrasheer. "That was really important for me, because I have a half-inch scar on my forehead from skin cancer," says Lengyel. "Plus, 80 percent of our skin's aging comes from UV exposure, but only 29 percent of people are wearing SPF every day."

Lengyel, who started her career in beauty marketing at Victoria's Secret over twenty years ago, has had a front-row seat to the cosmetics industry's evolution. "There used to be a top-down approach of big brands dictating the trends, and now it's the consumer voice doing that," she says. The Outset, whose products are sold by Sephora, Goop, and other retailers, taps into today's digital-consumption habits through TikTok (500,000+ followers) and Instagram (300,000+ followers) and oversees an online platform of superfans who the company calls "Skinsiders."

While The Outset undoubtedly benefits from Johansson's star power, Lengyel believes that the quality of products is what primarily drives loyalty and growth. "We operate with a 'Startup 101' mentality that I learned at Columbia Business School," she says. "The brand has to be able to stand on its own; it has to deliver on and exceed expectations with or without Scarlett's attachment. There's a demand now for 'better-for-you' products, and we pride ourselves on clean ingredients that are efficacious, safe, and a joy to use."



Scarlett Johansson and Kate Foster Lengyel

CARIN BACKOFF



Ju Rhyu

HERO COSMETICS

Popularizing pimple patches in the United States

Ju Rhyu '08BUS was an expat living in South Korea when a common skin problem inspired a dramatic career move. It was 2013, and “I was breaking out, and I didn’t know why,” says Rhyu, who was then working for Samsung. “Maybe it was the different environment or different lifestyle stress, but it was really frustrating.” Around that time, she had begun noticing an odd skin-care trend on the streets of Seoul: people wearing small, round stickers on their faces to treat pimples. “I bought some and was blown away by how well they worked,” says Rhyu. “I have sensitive skin, so a lot of creams and ointments would turn my skin red, flaky, and dry. The patches did not do that.”

Rhyu, who grew up in a Korean-American household in Seattle, wondered why such a simple and effective zit solution hadn’t gained traction stateside

(“Why was I learning about this now and not when I was a teenager?” she recalls thinking). So the Columbia Business School alumna came up with an innovative idea: marketing the popular Korean product in the United States under her own American brand.

In 2017, Rhyu officially cofounded Hero Cosmetics, a skin-care company known for its Mighty Patch stickers. “They’re made with hydrocolloid, which is a fluid-absorbing gel,” says Rhyu. Although hydrocolloid adhesives have existed in the US for many years, they’ve historically been used on wounds, not acne. “When applied to an inflamed pimple, they absorb the gunk and promote fast recovery,” Rhyu explains. Since introducing the original Mighty Patch through Amazon, Hero has added stickers specifically for daytime and overnight use, for dark spots and



early-stage blemishes, and for the chin, nose, and forehead. The brand also produces cleanser, moisturizer, and other products designed to promote clearer skin.

Hero was acquired in 2022 by consumer-goods giant Church & Dwight for \$630 million, and its products can be found at retailers like Target, CVS, and Ulta Beauty. The brand is also expanding internationally; its growth, Rhyu says, has a lot to do with its appeal to adults with mild or moderate acne, like her. “Hero is talking to an ignored audience,” says Rhyu, who in addition to running the New York City-based company as CEO, supports other entrepreneurs as an angel investor. “Traditionally, acne products have been for teens and folks with more serious acne. The formulas are quite harsh and focused on drying the skin. Hero offers something for anyone and everyone who has that occasional breakout and wants control over their skin.”

13 MORE ALUMNI BEAUTY BRANDS

- ABSOLUTEJOI** skin care, founded by Anne C. Beal '93PH
- AMP BEAUTY** cosmetics retailer, cofounded by Angel Lenise Pyles '11JRN
- DELVAUX** hairstyling clay, founded by Filipe Delvaux '22SPS
- EMILIE HEATHE** makeup and nail polish, founded by Emily H. Rudman '14BUS
- GLOW RECIPE** skin care, cofounded by Christine Chang '10GSAS
- IT COSMETICS** makeup and skin care, founded by Jamie Kern Lima '04BUS
- OLFACTORY NYC** custom fragrances, founded by Joseph Vittoria '21BUS
- PEACH & LILY** skin care, founded by Alicia Yoon '04CC
- PRAKTI** skin care, founded by Pritika Swarup '21GS
- RÉVIVE** skin care, CEO Elana Drell-Szyfer '91CC
- SHESPOKE** custom lipsticks, cofounded by Kelsey Groome '19BUS
- SOKO GLAM** cosmetics retailer, cofounded by Dave Cho '15BUS
- SUNDAYS** nail polish, founded by Amy Ling Lin '16BUS

Are Tax Breaks Breaking the Country? How a zealous anti-tax campaign that went unnoticed by most Americans has altered the nation's social, cultural, and political fabric

Michael J. Graetz '61GS, the Columbia Alumni Professor Emeritus of Tax Law and an international authority on taxation, discusses his new book, *The Power to Destroy: How the Antitax Movement Hijacked America*.

Q In your new book, you say that “the modern antitax movement is the most overlooked social and political movement in recent American history.” What led you to that conclusion?

I realized it was overlooked when I started asking people to identify the most important social and political movements of the past half century or so. They'd name the civil-rights movement, the women's movement, the LGBTQ+ movement, the Christian evangelical movement, the environmental movement, and more recently the MAGA movement. But no one ever mentioned the anti-tax movement, which I believe penetrates every aspect of society. Taxes are at the heart of so many cultural and social movements, but they get overlooked because people think of taxes either in purely personal terms — their own

concerns with income or property taxes or Social Security deductions from their paycheck — or as a larger, rather obscure fiscal or economic issue that operates in a separate realm from politics or culture.

An opposition to taxation, as you note in the book, is baked into the nation's identity; it's part of our origin story, beginning with the Boston Tea Party in 1773. But you trace the modern anti-tax movement to the 1970s. What happened then?

It started in 1978 with the enactment of Proposition 13 in California, which focused on property taxes. It included a rollback of taxes, a taxation limit of 1 percent of the assessed value of the home or commercial property, which does not get revalued until it is sold, and a requirement that a tax hike be approved by a supermajority (two-thirds) of the California legislature. The bill was promoted quite effectively by an unlikely promoter of anything — a cantankerous seventy-five-year-old right-winger named Howard Jarvis, who'd failed in all his previous attempts to become an important figure in

Republican politics. He'd run several times for office and lost, and he'd tried and failed to get enough signatures for earlier anti-tax ballot measures, including one to lower income taxes that was supported by then governor Ronald Reagan. But with Proposition 13, Jarvis finally prevailed.

Why do you think that was the right moment?

There were several reasons. For starters, the economy was in terrible shape. The country was suffering from both high inflation and high unemployment — dubbed “stagflation” — a combination that Keynesian economics had long held was impossible. In the wake of Watergate and the Vietnam War, many Americans had lost faith in government. And there was a spike in the racial divisions that had long been present in American life. Many Californians complained that their property taxes were paying for “somebody else's” schools. And the property taxes kept going up, because housing prices in California were skyrocketing. Their houses were no better or worse than they'd ever been, but homeowners were



paying more and more in taxes. It was a perfect storm. Proposition 13 passed, and amazingly its core provisions have survived subsequent voter initiatives and remained intact and untouchable by politicians. And within four years after Proposition 13 passed, thirty-four other states enacted some sort of property-tax limitation or supermajority voting rule.

The official narrative was that it was all about housing inflation, which was out of control and reason enough to spur this “revolt of the haves.” But when you look closely, Jarvis and his allies were extremely skillful in separating the “us who pay taxes” from the “them who don’t pay taxes.” And the “them” carried a distinct racial animus — anti-Black and anti-immigrant. We saw that same dynamic carry over in an explicit way as recently as the 2012 presidential campaign, when the Republican candidate, Mitt Romney, was caught on video telling his wealthy donors that 47 percent of the population would never vote for him because they were takers rather than makers — people who were “dependent upon government” and who “pay no income tax.” That is just one

example of why I insist that taxation issues are cultural issues.

The growing momentum of the anti-tax movement was also helped along by the evangelical movement. It was fascinating to read about the way evangelists like Jerry Falwell exploited cultural issues to protect the tax-exempt status of the racially segregated religious schools they’d begun operating after the *Brown v. Board* decision of 1954. These private schools were integral to the massive resistance to integration efforts in the South. It wasn’t until the early 1970s that courts finally decided that the so-called segregation academies were not entitled to deductible charitable contributions or tax-exempt status — which were these schools’ financial lifeblood. For many complicated reasons, the schools managed to ignore the regulations for more than two decades after the *Brown* decision. Finally, in 1978, during Jimmy Carter’s administration, the IRS came out with a much tougher rule that outraged the evangelicals: for the first time, a private school had to do more than merely *say* it was open to anyone of any race. There

actually had to be students of different races enrolled in the school. Reagan ran for president in 1980 promising to reverse the IRS position, making him the first Republican presidential candidate to garner important support from Christian evangelicals. That was a turning point. It spurred the Moral Majority into existence.

Can you remind readers what the Moral Majority was and why it became such an important force during the Reagan era? The two main Republican operatives who were instrumental in persuading Falwell to launch the Moral Majority were Paul Weyrich, an important socially conservative political operative who cofounded the Heritage Foundation in 1973, and Richard Viguerie, who was really the genius behind the financial success of the Republican Party, because he introduced the highly effective method of direct-mail solicitation to political fundraising (which now has morphed into e-mail and text solicitations). Weyrich and Viguerie were both devout Catholics and passionately antiabortion, and Viguerie in particular saw evangelicals as an untapped growth

area for conservative causes. After the 1973 *Roe v. Wade* decision, the two men tried to enlist Falwell and the evangelicals to enter politics on the abortion issue but failed. At that time — hard as it is to believe now — southern Protestants thought of abortion as a “Catholic matter” and had no objections to it in cases where the mother’s mental or physical health, broadly defined, was threatened. And Falwell was leery of getting into politics, because he thought it might dilute his effectiveness as a religious figure. It was only when the Carter administration got tough about denying tax-exempt status to segregated Christian schools that

homosexuality. But abortion was not one of their issues. Until it was. And it all started with the desire to avoid taxes.

It’s interesting to imagine how the abortion issue might have evolved if there’d been no tax incentive for the segregated schools and if the evangelicals had stayed out of it.

It does make you wonder. But Weyrich and Viguier weren’t the only Catholics who influenced them. Evangelicals were very much opposed to the ERA, and Phyllis Schlafly, who led the STOP ERA movement, was also a devout Catholic — and as such, fiercely anti-abortion. So there was overlap between

described by Newt Gingrich as the single most effective conservative activist in the country. Norquist’s intense dislike of taxation was formed, he says, during family outings to the local Dairy Joy when he was a child. His father would take one lick from Grover’s ice cream cone and say, this is the federal tax. He’d take another lick and say, this is the state tax. A third lick was the city tax. This left a deep impression on young Grover and set the stage for his lifelong anti-tax zealotry.

Norquist became most famous for his anti-tax pledge, introduced in 1986, which he managed to get Republican candidates at all levels — presidential, gubernatorial, and legislative on both the federal and state levels — to sign. The pledge calls for the candidate to promise never to vote for tax increases, regardless of the economic or fiscal circumstances. Never ever. The pledge even bans closing a tax loophole without reducing taxes elsewhere. And the number of people who’ve signed is stunning: more than 1,800 elected Republican officials, including forty-two current Republican senators, eighteen governors, and 191 representatives. After first refusing to sign the pledge, George H. W. Bush finally capitulated in his 1988 presidential campaign, telling Americans in a campaign speech, “Read my lips: no new taxes.” When, as president, Bush was forced to retreat from that promise, he arguably doomed his chances for a second term.

The other part of Norquist’s brilliance was that he understood the importance of creating coalitions that could advance legislation at both the federal and state levels. In 1993, he began convening what were famously known as his “Wednesday meetings,” first in DC and eventually in statehouses around the country, where he gathered Republican political operatives, think-tank types, and various other right-wing ideologues to discuss how to make government go away. He understood that being anti-tax was the one position that everybody in the Republican



Michael J. Graetz

Falwell decided to sign on to the idea of a Christian evangelical organization focused on conservative issues.

Of course, Falwell couldn’t come out and say that the Moral Majority is designed to keep private schools segregated and funded by tax advantages. So he talked about a whole series of social “problems” that Christian evangelicals were worked up about: people cohabiting without benefit of marriage; the Equal Rights Amendment [ERA], which was then before the states for ratification; the rampant spread of what evangelicals saw as the evils of feminism, communism, pornography, and

Schlafly and the southern Protestants in their opposition to the ERA and the women’s movement, which considered the right to abortion one of its fundamental principles.

The Power to Destroy is filled with colorful, if often baffling, personalities who somehow come to wield extraordinary power despite never holding public office. Among these is Grover Norquist. Who is he, and how did he achieve such prominence?

Grover Norquist, who founded a not-for-profit organization called Americans for Tax Reform in 1985, was once

coalition agreed on. That was the glue, and Norquist was the enforcer. He made sure that nobody ever lost sight of his movement. He believed that if you win the tax issue, you win all issues.

You tackle an interesting paradox in the book: the so-called “death tax” — a.k.a. a tax on the estates of wealthy people — is largely opposed, even by lower-income Americans who have zero chance of accumulating enough money for their heirs to be subject to it. What’s that about?

It’s complicated, but basically, in rebranding the estate tax as a “death tax,” Republicans very effectively put the undertaker and the IRS side by side. Death and taxes, as Ben Franklin noted, go together, and the Republicans exploited the connection, telling stories of hardworking everyman entrepreneurs who’d died unexpectedly, leaving huge estate-tax bills. An eighty-three-year-old Mississippian named Chester Thigpen, a grandson of slaves, testified at a congressional hearing in 1995 to urge the repeal of the estate tax on family businesses, because he feared that his children would otherwise be faced with a tax bill so steep they’d be forced to break up and sell off the tree farm he’d built over many decades of back-breaking labor. Supporters of the estate tax viewed Thigpen as a front for the wealthy donors who were financing the repeal machine, but his heartfelt testimony came to epitomize the evils of estate taxes. Ultimately, of course, his estate did not owe any taxes, because its value was assessed below the minimum to which taxes applied.

And that has always been the Democratic fallback: “You won’t have to pay; estate tax only applies to the top 2 percent.” But that argument does not convince ordinary people. Americans are remarkably optimistic: they genuinely believe they will become wealthy. In a survey that goes back about twenty years, 39 percent of those polled said that they were or someday expected to be in the top 1 percent of wealthy Americans. That percentage might be

lower today, given the income inequality and economic insecurity we’ve seen since then, but the polling on the estate tax has stayed steady at about 60 percent in favor of repeal. Of course, that’s also true of other taxes people get asked about — if the pollster doesn’t mention that repeal would mean cutting programs they like, such as Medicare, Social Security, and a strong national defense. Republicans have perfected

than economic growth. The income-tax cuts the Trump administration enacted in 2017 are set to expire in 2025, but if they are extended, the cost would exceed \$4.5 trillion over the next decade. The interest on the federal debt has become the second-fastest-growing expenditure in the federal budget, outpaced only by Social Security. Debt interest is growing faster than defense spending. Faster than Medicare. And

The American people don’t realize it and don’t feel it, but all this interest they’re paying on the federal debt is a kind of secret tax.

polling in a way that Democrats have not. That’s a big reason the anti-tax movement has been so successful and why even a Democratic president with a Democratic Congress won’t be doing anything soon to raise the estate tax — though merely lowering the threshold at which it currently kicks in (a healthy \$13.6 million) would generate billions of dollars in revenues.

You paint a bleak picture at the end of the book when you lay out the hard numbers of the country’s deficit. There is, of course, a school of thought, exemplified by adherents of modern monetary theory [MMT], among others, that deficits don’t matter. I assume that you are not a proponent of such theories?

I am not. The underlying thesis of MMT depends on economic growth being greater than interest rates. That is not the case right now. The deficit is bigger than it has been at any time since the Second World War, and the Congressional Budget Office is predicting interest rates over the next decade, or even several decades, that are higher

thirty cents on every dollar we pay in interest is going to foreigners. Even MMT has a problem with those numbers. The American people don’t realize it and don’t feel it, but all this interest they’re paying on the federal debt is a kind of secret tax. And the high cost of that is crowding out both public and private expenditures that could help build infrastructure or provide health care for the American public — an aging American public, I should add.

So we need to make some adjustments. The line I always return to was voiced by Herb Stein, a University of Virginia economist who was chief economic adviser to the Gerald Ford administration. In a hearing on the deficit, he said, “If something can’t go on forever, it will stop.” This simple phrase became famous as Stein’s Law. I’m a great believer in Stein’s Law. Refusing to raise taxes and instead borrowing our way out of the shortfall can’t go on forever. The problem for me right now is that I don’t know how it all stops — or when.

— Lorraine Glennon

EXPLORATIONS

FRONTIERS OF
RESEARCH AND
DISCOVERY



What really happened on Easter Island?

A millennium ago, a brave group of Polynesians sailed thousands of miles across the Pacific to settle one of the world's most isolated places — a small, previously uninhabited island they named Rapa Nui. There they erected hundreds of “moai,” or gigantic stone statues of ancestral spirits, to protect them. In time, the island population ballooned to fifteen thousand souls or more, which proved to be unsustainable. They killed off the island's seabirds, exhausted its soils, and chopped down its trees. Consequently, the civilization collapsed, and when Europeans arrived in 1722 and renamed the place Easter Island, only a few thousand people remained. At least that is the long-told story, recounted in academic papers and popular books like Jared Diamond's 2005 *Collapse*.

A new study by Columbia archaeologist Dylan Davis challenges this narrative, claiming that the Rapa Nui people did not overpopulate the island but rather maintained a small and stable settlement right up until the Europeans arrived. The evidence: a comprehensive survey of the island's farmland that indicates that its inhabitants grew only enough crops to feed four thousand people at any given time.

“This shows that the population could never have been as big as some of the earlier estimates suggested,” says Davis, who is a postdoctoral research fellow at the Columbia Climate School.

Davis and his colleagues were able to calculate the islanders' agricultural productivity because their farming method — scattering broken rocks in fields to protect small plants from wind and ocean spray — left an enduring archaeological record. Mapping these “rock gardens” has long been regarded by scientists as a valid way to estimate Rapa Nui crop yields. But Davis and his colleagues developed a new, highly sophisticated analytic approach that produced vastly different results. First, members of the research team conducted detailed on-the-ground investigations of Easter Island's rock gardens, painstakingly documenting their geological characteristics. Then they trained a series of machine-learning models to analyze satellite images of the island and detect any patches of land that had historically been used for rock gardening. Whereas simpler satellite-based analyses conducted by other groups had previously estimated that anywhere from 2 to 12 percent of the landscape had once

been used for growing food, Davis's team determined that less than one-half of 1 percent of the island, or about 188 acres, had been cultivated.

"There are natural rock outcrops all over the place that had been misidentified as rock gardens in the past," says Davis, whose coauthors include Robert DiNapoli of Binghamton University, Terry Hunt of the University of Arizona, and independent Rapa Nui researcher Gina Pakarati.

The new study is likely to intensify a scholarly debate that has been brewing for years about the history of the Rapa Nui people. Traditionally held up as a cautionary tale of how unchecked population growth and consumption can lead to ecological ruin, the islanders' experience now reads to some as an ecological success story, one in which people found creative ways to thrive in a previously barren environment. For example, Davis and his coauthors point out that rock gardening, in addition to protecting crops from the elements, causes phosphorus, potassium, and other crucial minerals to leach out of broken stones and into the ground, thus maximizing the potential of the volcanic island's nutrient-poor soil.

"The lesson is the opposite of the collapse theory," says Davis. "People were able to be very resilient in the face of limited resources by modifying the environment in a way that helped."

— *Kevin Krajick*
'76GS, '77JRN

Study reveals risk factors for long COVID

Women, adults with a history of cardiovascular disease, and people who are not vaccinated against SARS-CoV-2 are at heightened risk for developing long COVID, whose symptoms include fatigue, brain fog, and joint and muscle pain that persist for three months or longer after initial infection, according to a recent study by Columbia University researchers.

The study, which involved 4,700 Americans who had COVID-19 between 2020 and 2023, found that the average

saw a team of nearly fifty medical and scientific experts who contributed to the new analysis.

A person's chances of developing long COVID also appear to be slightly higher if they have other preexisting conditions — including diabetes, obesity, lung disease, or depression — or a history of smoking. But the associations found in the Columbia study between those factors and recovery time are quite weak and would require additional research to verify. "It's possible that what we call long COVID is actually a number of



recovery time is twenty days and that about one in five people experience symptoms lasting longer than three months. It also found that people who catch Omicron variants, which have accounted for the vast majority of infections in the US since late 2021, are less likely to develop long COVID than those exposed to more virulent strains of SARS-CoV-2. People who are vaccinated recover more quickly from all strains.

"Our study underscores the important role that vaccination against COVID has played, not just in reducing the severity of an infection but also in reducing the risk of long COVID," says Elizabeth C. Oelsner '08VPS, '24PH, a Columbia physician and epidemiologist who over-

related syndromes, each involving different risk factors like diabetes or lung disease, and that these factors will stand out more clearly if we examine specific subsets of patients," says Oelsner.

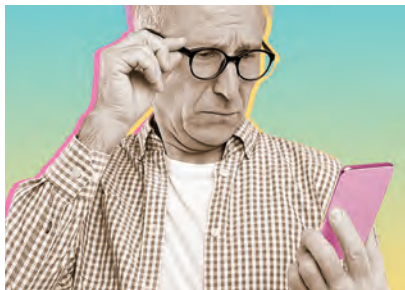
Certain demographic groups, including American Indian and Alaska Native participants, were found to be disproportionately affected by long COVID, although the reasons for this are unclear.

Oelsner says that her team's findings open up new avenues of research. "By identifying who is likely to experience a lengthy recovery, we have a better understanding of who should be involved in ongoing studies of how to lessen or prevent the long-term effects of SARS-CoV-2 infection."

How susceptible are Americans to fake news?

The spread of fake news online has been called one of the greatest threats to democracy, with fabricated stories regularly racking up hundreds of thousands of views on social media. Some say that the onslaught of misinformation is fueling political polarization and dysfunction, since these materials are often designed to inflame partisan passions.

But new research by economists Andrea Prat of Columbia and Charles Angelucci of MIT shows that the vast majority of Americans can reliably discern real news stories from fake ones and that a bigger threat to democracy may be lack of access to reliable news sources. In a series of laboratory experiments involving nearly fifteen thousand participants, Prat and Angelucci found that only a small percentage of adults are routinely fooled into believing that fabricated articles are true. Moreover, they discovered that Republicans and Democrats are only slightly more



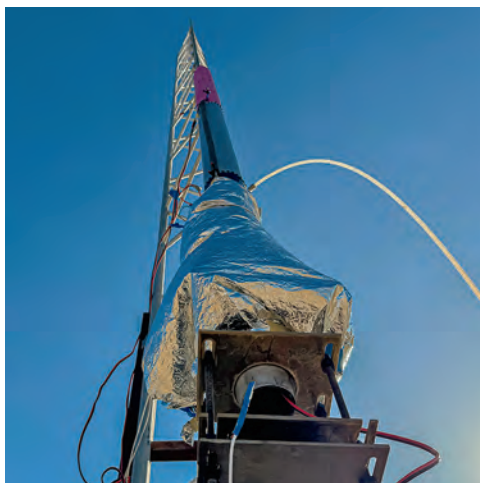
likely to believe fake news articles that smear the other side — a finding that the authors say belies the notion, widely held among pundits, that Americans no longer share a common view of the facts.

“The debate on political news has centered around ‘the death of truth’ and the existence of ‘parallel narratives,’ sometimes leading to urgent calls for drastic reforms,” such as new limitations on online speech, the authors write in *American Economic Review*. “Our work casts doubt on this narrative.”

But the researchers do conclude that a person’s ability to spot fake news is

significantly influenced by their demographic characteristics. For example, they find that older, college-educated, and high-earning Americans are up to 18 percent more likely to detect fake news stories than younger, less-educated, and poorer individuals.

And this finding, Prat says, indicates that new efforts to improve media literacy and political engagement across all segments of the US population are necessary. “The key message is that there is brutal information inequality in US society,” he says. “Some people are informed; others are not. And this doesn’t correspond to the country’s ideological divide. Rather, it runs along socioeconomic lines.” Prat says that subsidizing access to serious journalism, such as by providing people vouchers, could help. “As a society, we’re devoting enormous resources to fighting misinformation and fake news. We should also be devoting resources to making sure that everybody gets access to real news.”



Blastoff, Mojave style

In June, members of the **Columbia Space Initiative**, a student club devoted to space engineering, traveled to California’s Mojave Desert to compete in FAR-OUT 2024, a national rocketry competition. Columbia’s budding aerospace scientists won second place in their division, launching a nitrous-paraffin hybrid rocket that they designed and built to an altitude of about one mile. Their rocket produced over a half ton of thrust, accelerated at 16 Gs, and deployed parachutes to land and be safely recovered. The Columbia students also won the event’s “podium presentation,” in which they showcased their design innovations. Visit columbiaspace.org.



A male oldfield mouse and his pups.

Of mice and men: In search of the “good dad” hormone

The male oldfield mouse, a diminutive rodent native to the southeastern US, towers over almost all other creatures in one regard: his fathering skills. Not only is he among the less than 3 percent of males in the animal kingdom who mate with a single female for life, but he also takes on an equal share of parenting duties, building elaborate nests for his offspring, dutifully grooming and cuddling with them, and retrieving any that inadvertently stray from home.

Now a team of Columbia scientists has achieved a major breakthrough in understanding this mouse’s paternal instincts, discovering that its adrenal glands contain a previously unknown type of cell that produces large amounts of a hormone called 20α -OHP, which appears to make the mouse a doting dad. “The hormone from these cells was actually first discovered in humans many decades ago, but nobody really knew what it did,” says Andrés Bendesky, a Columbia neurobiologist who led the research.

Bendesky’s team made the discovery by comparing the hormonal systems of oldfield mice and deer mice, a closely related species whose males are promiscuous and do not participate in parenting. Deer mice were observed to have smaller adrenal glands that lack the special cells for boosting 20α -OHP production and lower levels of the hormone circulating in their bodies. But when the male deer mice were injected with extra 20α -OHP, they too went into dad mode, constructing nests and caring for their pups for the first time.

The Columbia researchers say their insights could have implications for understanding the mating, bonding, and parenting behaviors of other mammals, including humans. “I hope that our study motivates further investigation into the link between 20α -OHP and parenting in people,” says Jennifer Merritt, a Columbia postdoctoral researcher and joint first author on the paper. “We have so much to learn about the role this hormone plays.”

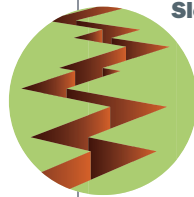
STUDY HALL RESEARCH BRIEFS

Gene may protect against Alzheimer’s disease Columbia medical researchers have discovered a gene variant that

may allow toxic amyloid plaques to be cleared out of the brain before they cause Alzheimer’s disease, thereby reducing the odds of developing the condition by up to 70 percent. Their discovery could herald a new direction in drug development.

Snake-tooth solution With an eye toward improving rotator-cuff surgery, Columbia biomedical engineers led by Stavros Thomopoulos ’95SEAS have created a new type of implantable suture inspired by the sharp, backward-curving teeth of pythons. When used to reattach tendon to bone in an injured shoulder, the suture doubles the joint’s strength.

Baby blues going untreated Nearly one in eight new mothers experience postpartum depression, but only half of them get help, and for Black and Hispanic women the rate drops to 37 percent, according to researchers at Columbia’s Mailman School of Public Health.



Sleepless in Seattle Geologists led by Columbia’s Suzanne Carbotte have completed the first comprehensive assessment of the Cascadia subduction zone, a gigantic fault that runs along the Pacific Northwest coast.

They found evidence that the most dangerous section of the six-hundred-mile-long fault, which is about four hundred years overdue for a major slippage, lies beneath Seattle and Tacoma.

Who does a fish need to know around here? Biologists have discovered that cichlids, small freshwater fish that cooperatively raise their young, engage in a form of nepotism, turning a blind eye to relatives who shirk their child-rearing duties even while physically attacking other group members who display the same behavior.

Cold gas yields quantum leap By cooling gas molecules to -459.66°F , Columbia physicists in the laboratory of Sebastian Will have succeeded in creating a rare quantum state of matter called a Bose-Einstein condensate, first theorized by Satyendra Nath Bose and Albert Einstein a century ago.

NETWORK

YOUR ALUMNI
CONNECTION



Angela Co in Brooklyn's Prospect Park.

Air Patrol

Through nonprofit work and a fashion brand, architect Angela Co conserves and champions New York City's wild birds

In 2016, Angela Co '05GSAPP was living in Brooklyn and working as an architecture professor when she had a life-changing experience involving a set of binoculars. Her husband's aunt, a bird-watcher, "took us birding in New Jersey, and it really grabbed hold of me," she recalls. "I had no idea so many birds could be seen here. Looking at a field guide and getting a sense of what might arrive was thrilling."

Since catching the birding bug, Co has managed to turn that avian enthusiasm into a full-time career. The New Jersey trip inspired her to join a local bird-watching group, where she met graphic designer Tina Alleva. In 2019, they cofounded Bird Collective, a brand of apparel and accessories featuring original artwork of birds found in the region — owls, loons, warblers, and more. The online retailer, which donates a portion of its proceeds to conservation, has

generated nearly \$150,000 for groups like American Bird Conservancy and HawkWatch International. "We want to raise awareness about native birds in North America and the shocking fact that we've lost so many — approximately 25 percent of the total population over the past fifty years," Co says.

A licensed architect who grew up in Los Angeles before attending grad school at Columbia, Co left her faculty post at Syracuse University in 2022. But her design background continues to inform her advocacy work. "Cities aren't just for people," says Co, who also serves on the board of directors for NYC Bird Alliance (formerly NYC Audubon), a conservation nonprofit. "A whole host of wildlife has continued to live in or pass through this area since the last ice age. There are so many things that people can do to make the city safer for birds, and design is a part of this."

LEN SMALL

One of those things is constructing more crash-resistant buildings. “Birds can’t see glass,” notes Co. To reduce collisions, NYC Bird Alliance successfully advocated for Local Law 15, a city mandate that requires new buildings to use bird-friendly facade materials — patterned glass, for example — up to 75 feet high. The law went into effect in 2021. Earlier this year, when a Eurasian eagle-owl named Flaco, who had escaped from the Central Park Zoo, died after crashing into a building, the cause gained extra resonance among New Yorkers. “Flaco really raised awareness about some of the human-caused threats that birds face,” says Co.

While the perils of urban development are out of most civilians’ control, there are smaller ways to help our feathered neighbors, says Co, like turning off lights at night (birds are attracted to artificial light) and supervising pets. “Cats are one of the biggest killers of birds. They’re amazing companions, but they’re not part of our native ecology.” As for dogs, it’s important to keep them leashed in wooded



Apparel from Bird Collective.

areas of parks: “Dogs can destroy the very little habitat birds have in the city.”

Co acknowledges that birding culture is having a moment, one that Bird Collective is meeting. “Birding exploded during the pandemic and became more mainstream,” she says. And as the chair of equity, diversity, inclusion, and accessibility at NYC Bird Alliance, Co is eager to bust the stereotype that birding is only for retirees. “Anyone can bird at any age or level. There aren’t a lot of barriers to start.”

For the bird-curious, Co recommends starting out by listening. “Birds make a lot of sounds. Start noting where you see birds, what they look like, and how they are behaving.” Those who want an enhanced experience should get hold of binoculars (“to see the rich colors and detail”) and a field guide, download a birding app, or join a guided walk. While urban oases like Central Park are great for scoping out native and migrating species, Co says that “one of the best places in the city, hands down, is the Jamaica Bay Wildlife Refuge. It has habitats for forest birds, brackish birds, saltwater birds, freshwater birds, wading birds, and birds of prey.”

Whether out in Jamaica Bay or in her local Prospect Park, Co believes there is more to birding than observing an elusive animal. “Birds tune us in to the seasons, because they come through at different times, and they link us to faraway places,” she says. “I think birds are a really incredible way to connect with something much bigger than ourselves.” — *Julia Joy*

6 Podcasts for News Junkies

For election commentary and more, stream these alumni-hosted programs

ON WITH KARA SWISHER

Tech journalist Kara Swisher ’85JRN hosts this twice-a-week news podcast in which she interviews major figures from business, politics, entertainment, and more.

UNCERTAIN THINGS

Cohost Vanessa M. Quirk ’15JRN, a reporter focused on urban issues, discusses controversial subjects with notable media figures.

HONESTLY

Known for its candid commentary on timely topics, *Honestly* is hosted by journalist Bari Weiss ’07CC, founder of the media company The Free Press.

MEDIA BUZZMETER

This spinoff of Fox News’ *Media Buzz* is hosted by Howard Kurtz ’75JRN, who analyzes media coverage of the latest stories.

MO NEWS

Cohosted by former CBS anchor Jill Wagner ’03GSAS, *Mo News* sums up the stories of the day with a promise to curate “verified, balanced news.”

THE DAN ABRAMS PODCAST

Dan Abrams ’84LAW, a mainstay of ABC News and NewsNation, brings his legal expertise to top stories in this podcast edition of SiriusXM’s *The Dan Abrams Show*.





**ASK AN ALUM:
THE ART OF
THE ACCENT**

Michael Walsh '17SOA, a dialect coach with degrees in acting and linguistics, teaches actors and other professionals how to master new ways of speaking.

What exactly do you do?
I mainly work with actors across film, TV, theater, and commercials. First we identify a goal: Do they need a particular accent or dialect for a role? Do they need to sound like a specific person? Or are they trying to build the skills to have an accent in their back pocket for auditions? Then I work with them on how to isolate specific vowel and consonant sounds.

In addition to actors, I've worked with lawyers, authors, and people who are afraid of public speaking. I occasionally get clients from other countries who are looking for "accent reduction," which I think is a ridiculous term because I'm just teaching them a different accent — an American one.

How did you get into this profession?

Completely by accident. While I was at Columbia

pursuing an acting degree, there was a class taught by dialect coach Susan Cameron, who I now consider my mentor. We were studying the International Phonetic Alphabet, and I started looking up different accents and writing out the sounds for fun. Over time, I started getting jobs as a dialect coach for various productions.

What's the difference between an accent and a dialect?

An accent is a group of vowel, consonant, and intonation differences, whereas a dialect also has differences in vocabulary and grammatical structure. Transatlantic, the British-American hybrid used by old Hollywood stars, is an example of an accent. New England American English is considered a dialect, but within that dialect are different accents for Boston, Maine, etc.

One of the things I love about accents and dialects is how they're influenced by everything you can think of — culture, immigration, time, even weather. For example, if you grew up in a blindingly sunny part of the world, the way you speak might be influenced by how often you use the muscles of your face to squint.

What is your particular area of expertise?

I'm most familiar with RP ("received pronunciation") British, which characterizes high-class English accents, as well as German. RP British is one of the most commonly used accents in theater — virtually every local theater company does *A Christmas Carol*. When people come to me, I teach them how to find those little sounds that signal an RP accent. Two common ones are the o sound, as in "nose," and aw, as in "claw."

Which dialects or accents do people find most difficult to learn?

I think people really underestimate cockney English. Dick Van Dyke's accent in *Mary Poppins* is one of the most infamous examples from film or TV. It was so bad that Van Dyke has actually apologized for it. But his performance is what's in a lot of Americans' ears when they think of cockney. When I start teaching people the dialect, they sometimes do this thing where they're like, "Aw right, innit, mate?" and it sounds like they took a giant bite of an apple and kept it in the center of their mouth. I think Appalachian is also very difficult and very underestimated. Cajun is the hardest dialect I have ever tried to make sense of, break down, and teach somebody else.

British and Australian actors are often better at American accents than the other way around. Why is that?

I think it's because their early training centers more on American accents, which are required for many Hollywood jobs. Brits and Australians are also more inundated with American pop culture than we are with their media. Over the years, American media has even influenced accents and dialects in other languages. Germans speaking English in the 1930s sounded different from Germans speaking English now, because then the accent was more influenced by the UK. Nowadays, it's more influenced by the US. And the reason for that is film and TV. — *Julia Joy*

WALSH WEIGHS IN

Accent All-Stars 👍

<p>Idris Elba in <i>The Wire</i> (Baltimore American)</p> <p>Meryl Streep in <i>Sophie's Choice</i> (Polish)</p>	<p>Renée Zellweger in <i>Bridget Jones's Diary</i> (Estuary English)</p> <p>Leonardo DiCaprio in <i>Blood Diamond</i> (South African)</p>
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Accent Atrocities 👎

<p>Dick Van Dyke in <i>Mary Poppins</i> (Cockney English)</p> <p>Mel Gibson in <i>Braveheart</i> (Scottish)</p>	<p>Jared Leto in <i>House of Gucci</i> (Milan Italian)</p> <p>John Lithgow in <i>The Crown</i> (RP British)</p>
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STREEP: ALASTAIR PICTURE LIBRARY LTD. / ALAMY; ELBA: IGH COLL. / ALAMY; DICAPRIO: PREE / SHUTTERSTOCK; ZELWEGER: AJ PICS / ALAMY; GIBSON: MOVIESTORE COLL. LTD. / ALAMY; VAN DYKE: DISNEY / RBR COLL. / ALAMY; LITHGOW: ALEX BAILEY / NETFLIX; LETO: COLL. CHRISTOPHEL / ALAMY

Pulitzer Pride

Alumni won coveted awards in journalism and the arts this year



Alex Mierjeski '17JRN shared the prize for public-service journalism with his ProPublica colleagues for their reporting on corruption at the Supreme Court.



Tyshawn Sorey '17GSAS took home the Pulitzer for music for his saxophone concerto *Adagio (For Wadada Leo Smith)*.



Ilyon Woo '04GSAS was awarded a prize in the biography category for *Master Slave Husband Wife*, about abolitionists Ellen and William Craft.



Nathan Thrall '06GSAS won for general nonfiction for his book *A Day in the Life of Abed Salama: Anatomy of a Jerusalem Tragedy*.



Gerard Papa coaches Flames players in Brooklyn.

A Team Grows in Brooklyn

Gerard Papa is the founder of Flames, the biggest, most diverse youth-basketball program in Brooklyn

Gerard Papa '72CC, '74SIPA, '75LAW talks fast and moves fast. He graduated from high school at fifteen, Columbia College at eighteen, and Columbia Law at twenty-one. “I just look dumb,” he jokes. His accent is pure old-school Bensonhurst, a southern-Brooklyn neighborhood where Papa lives in an old Victorian house with faded yellow shingles and a statue of the Virgin Mary in the backyard. He has always lived here.

A retired Wall Street lawyer, Papa is the founder of Flames, a local youth-basketball program that he started in 1974, and which he integrated at a time when “you could get killed for being in the wrong neighborhood,” he says. Bensonhurst was no different: heavily Italian, the enclave was notoriously hostile to outsiders, especially Black people.

Inside Papa’s house is a long shelf jammed with trophies that Flames teams have won over the years, and also basketballs signed by inmates from Queensboro Correctional Facility (Papa takes his best players to compete against prison teams around New

York State). “I haven’t dusted these trophies since my mother died,” Papa says. Elena Papa passed away in 2015. Papa calls her “the grandmother of Flames” — her grandchildren being the more than twenty-two thousand boys who have donned a Flames uniform in the past fifty years.

At seventy-one, Papa still runs Flames himself, with his own money. Much of that money came to him as civil damages for the night in 1986 when undercover cops ambushed him on a dark stretch of road near Coney Island Creek. They fired at his car, then dragged him out and beat him senseless. A grand jury ruled it a case of mistaken identity, though Papa maintains that it was a vendetta for his having blown the whistle on local pols who had misspent funds intended for youth programs.

But Papa, a devout Catholic, doesn’t hold grudges. More than a few Flames alumni became cops themselves. He’s sociable with all sorts — “That’s the story of my life — being friends with people different from me” — and doesn’t push any savior narratives about himself. “I just wanted to coach a damn basketball team,” he says. His

NETWORK

all-white team that first year was lousy, and so, wanting better, Papa crossed an unthinkable line. He started recruiting Black kids from the nearby projects.

A priest in Bensonhurst let Flames set up hoops in the church's bingo hall, which allowed Papa's kids to compete in the citywide Catholic Youth Organization (CYO) basketball league. "That's when all hell broke loose," Papa says. The white parishioners were furious. Papa faced death threats. Someone slashed the tires of his blue Thunderbird. Fights erupted on the courts, in the bleachers, on the streets. "These were the only Black kids in the league. Every game, home and away, was like, 'How are we going to not get people killed?'" The following year, Flames won the CYO championship. "That put us on the map," Papa says. "Now everybody wanted to play for us. We integrated both the neighborhood and the CYO."

These days, Flames is based out of a gym at John Dewey High School in Gravesend. Papa paid for the backboards and the clock, and he controls the space. He's a rules guy, and there are strict rules of conduct at Flames. But he can't control everything; he's been to too many funerals to imagine otherwise. Nor can he stop his world from changing: about twenty years ago, he says, Russians, Middle Easterners, and Chinese people started moving in to the neighborhood, a shift that is reflected in the players. "The Italians went to Staten Island and New Jersey. If you wanna hear a Brooklyn accent, you have to go to Staten Island."

Earlier this year, to celebrate fifty years of Flames, Papa held a banquet in the St. Regis Hotel on E. 55th Street. The crowd was like a hard-boiled Pete Hamill column come to life: cops and firefighters, judges and bishops,

prison guards and journalists, and a couple of Columbia deans. Jackets, ties, clerical collars. Flames alumni, Black and white, had gathered from all over the country. Old teammates met again in middle age, still separated by culture but connected in deeper ways. Papa moved through the room, greeting people and posing for group pictures. In the end, he feels he has touched more lives through youth basketball than he ever would have, had he become (as he once considered) a priest or a politician.

Having walked the walk, Papa has little patience for what he sees as liberal pieties about social issues: "The best way *not* to solve the race problem is to have a 'national conversation' about race," he says. "You gotta move on and do positive things together. That's what I do. That's what Flames is. Just do it." — *Paul Hond*

Gold Standard

Jackie Dubrovich finishes the Olympics on top



Jackie Dubrovich fences at the 2024 Olympics.



Fencer Jackie Dubrovich '16CC took home gold in the women's team foil event — helping the United States to secure its first-ever Olympic gold medal in a fencing team competition. Dubrovich, who fenced for the Lions at Columbia, also won team gold (and individual bronze) at the Pan American Championship earlier this year. Dubrovich

was joined at the Paris games by épée fencer Anne Cebula '20BC, rowers Charlotte Buck '18CC and Alexander Hedge '19CC, rhythmic gymnast Evita Griskenas '24CC, and basketball player Maodo Lô '16CC, who competed with Team Germany. Foil fencer and Columbia College junior Bogdan Hamilton also competed, representing Team Canada.

Vodka and Brine

ISCO bottles the sea

In a crowded craft-beverage market, the Industrious Spirit Company (ISCO) — a Providence distillery opened in 2020 by Manya K. Rubinstein '07BUS, Doug Randall '08BUS, Dan Neff, and John Curtin — is known for a unique offering: liquor distilled with oysters. The company's popular Ostreida vodka doesn't just pair well with seafood; it actually tastes a little like the Atlantic.

"The whole oyster goes in — shell, meat, and all," explains Rubinstein, the CEO, about the final stage of distillation. "Next, we add pure water to dilute the alcohol to a drinkable strength, and you end up with a creamy, delicious spirit with notes of minerality and brine."

This year, ISCO began partnering with the Billion Oyster Project to donate a portion of Ostreida's proceeds to the restoration of New York Harbor's oyster reefs, which are a natural defense against storm damage. The distillery also just launched an oyster gin called Seaflow (flavored with citrus, seaweed, and flowers), one of several new and upcoming spirits that channel what Rubinstein calls an "obsession with everything maritime."

— Julia Joy



NEWSMAKERS

● Writer **V. V. Ganeshanathan '07JRN** won the 2024 Carol Shields Prize for Fiction and the United Kingdom's Women's Prize for Fiction for *Brotherless Night*, a novel about an aspiring doctor caught up in the Sri Lankan civil war.

● At the 2024 Empire State Senior Games in Cortland, New York, **Robert Gamer '72GS**, a veteran of the United States Air Force, won four gold medals in swimming for men ages 80 to 84. The achievement qualified him for the 2025 National Senior Games.

● Food and travel reporter **Diana Hubbell '18JRN** won the James Beard Foundation award for feature writing for her article "Saving the Hogs of Ossabaw Island," published in *Gastro Obscura*.



● *Shōgun*, a historical TV drama set in 1600s Japan, received 25 Emmy nominations, including one for outstanding drama series (the first Japanese-language show nominated in that category). Executive producer **Justin Marks '02CC** co-created and cowrote the series, with **Jonathan van Tulleken '10SOA** directing the first two episodes.

● *Suffs*, a Broadway show about the women's suffrage movement produced by **Jill Furman '97BUS**, won Tony Awards for best book of a musical and best original score. *Jaja's African Hair Braiding*, written by **Jocelyn Bioh '08SOA**, won for best costume design.



● **Ellen Francis '16JRN**, a journalist at the *Washington Post*, was named the publication's Brussels bureau chief after

previously serving as a breaking-news reporter in London.

● **Jargalan Batbayar '05BC**, **Bolormaa Enkhbat '14SIPA**, **Nominchimeg Odsuren '15LAW**, and former Columbia researcher **Saranchuluun Otgon** were elected to Mongolia's parliament.

● **Anika Collier Navaroli '13JRN**, a writer and lawyer known for blowing the whistle in 2022 on Twitter's content-moderation policies while working for the company, was featured in the documentary *Hacking Hate*, about far-right extremism on social media.

● *Before the End*, an installation composed of four tombstone-like figures by sculptor **Huma Bhabha '89SOA**, was unveiled in Brooklyn Bridge Park in April and will be on view through March 2025.

● Labor lawyer **Joseph R. Landry '16LAW** landed a Supreme Court clerkship under Justice Ketanji Brown Jackson for the term beginning in October 2024.

● Several alumni were elected to the American Academy of Arts and Sciences this year, including a number of faculty members (see Bulletin, page 56). Non-faculty alumni include Howard University president **Ben Vinson III '98GSAS**; journalists **Raney Aronson-Rath '95JRN** and **Carlos Lozada '05JRN**; translator **Mark Polizzotti '82GSAS**; sociologist **Prudence Carter '99GSAS**; historian **Barbara Ransby '84GS**; and authors **Jhumpa Lahiri '89BC** and **Tracy K. Smith '97SOA**.



KATRINA ARMSTRONG NAMED INTERIM PRESIDENT, REPLACING MINOUCHE SHAFIK

Katrina Armstrong, the chief executive of Columbia University Irving Medical Center and dean of the Vagelos College of Physicians and Surgeons, was named interim president of the University on August 14, following the resignation of Minouche Shafik.

Shafik, an economist who led Columbia for one year, stepped down after months of campus tensions related to the Israel-Hamas war. “I have had the honor and privilege to lead this incredible institution, and I believe that — working together — we have made progress in a number of important areas,” Shafik wrote in a letter to the Columbia community. “However, it has also been a period of turmoil where it has been difficult to overcome divergent views across our community ... Over the summer, I have been able to reflect and have decided that my moving on at this point would best enable Columbia to traverse the challenges ahead.”

“While we are disappointed to see her leave us, we understand and respect her decision,” wrote David Greenwald ’83LAW and Claire Shipman ’86CC, ’94SIPA, co-chairs of the University Trustees, in a letter on behalf of the board. “In this difficult year, Minouche has worked, inspired, and led tirelessly. Her wisdom, empathy, and deep commitment to our community have guided us through challenges that are both unique in scale and unique to this moment.”

After recognizing Shafik’s accomplishments as president, the Trustees said

they were “taking all necessary steps to ensure a smooth leadership transition” and expressed gratitude that Katrina Armstrong, who has led Columbia’s medical center since 2022, had agreed to step in. “Katrina has distinguished herself as a physician, investigator, teacher, and leader with a unique ability to listen actively to all voices, incorporate lessons from across disciplines, advance innovative teaching that positions learners of all backgrounds for success, and bring together teams from across communities to work together toward a common purpose,” wrote the Trustees. “Authentic and direct, she has exhibited exemplary, values-driven leadership while managing the largest and most complex division of our University.”

In her own letter to the Columbia community, Armstrong wrote that she was “deeply honored to be called to serve as interim president of our beloved institution.” Acknowledging that Columbia is at a pivotal moment, she said that “challenging times present both the opportunity and the responsibility for serious leadership to emerge from every group and individual within a community ... Never has it been more important to train leaders capable of elevating society and addressing the complexity of modern life. Columbia University has a long history of meeting the moment, and I have faith that we will do so once again.”

SARAH COLE NAMED DEAN OF THE SCHOOL OF THE ARTS

Sarah Cole, a professor of English and former department chair and divisional dean, has been appointed to lead the School of the Arts.

A member of the Columbia faculty since 1999, Cole chaired the Department of English and Comparative Literature for two years before becoming dean of humanities in 2018. She served in that position, which gave her responsibility for thirteen academic departments and sixteen interdisciplinary centers and institutes, until being chosen to serve as interim arts

dean in 2023, when Carol Becker stepped down after sixteen years in the job.

The School of the Arts is composed of the departments of film, theater, visual and sound arts, and writing; its dean also oversees the Lenfest Center for the Arts and Miller Theatre.

Cole, a graduate of Williams College and the University of California, Berkeley, is an expert in nineteenth- and twentieth-century literature. She is the author of books on H. G. Wells, literary depictions of male friendship



in World War I and its aftermath, and the influence of political violence on British and Irish modernism.



DANIEL ABEBE TO LEAD COLUMBIA LAW

Daniel Abebe, a legal scholar and accomplished academic administrator, has been named dean of Columbia Law School.

Abebe comes to Columbia from the University of Chicago, where for the past six years he served as vice provost for academic affairs and governance. In that role, he was responsible for stewarding critical aspects of university-wide academic life and important strategic assignments, such as articulating the principles that underpin the university's widely emulated commitment to free expression. Previously, he was deputy dean of the University of Chicago Law School.

An expert on the constitutional law of US foreign affairs and public international law, Abebe earned his bachelor's degree from Maryville University of St. Louis, his law degree from Harvard, and his doctorate in political science from the University of Chicago. After clerking for Judge Damon J. Keith of the US Court of Appeals for the Sixth Circuit, he worked at Cravath, Swaine & Moore in New York before returning to academia. He is an elected member of the American Law Institute.

At Columbia Law School, Abebe succeeds Gillian Lester, who led the school for almost a decade.

NEW COMMITTEE TO EVALUATE FOSSIL-FUEL FUNDING

In a major step toward answering questions regarding its use of fossil-fuel-industry funds for research, Columbia University has appointed a committee to evaluate the issue and to put forward recommendations for consideration.

Concerns about the potential undue influence of the fossil-fuel industry on academic research have been reported in the press and in scholarly publications in recent years. And while Columbia's conflict-of-interest policies address these concerns to some degree, they do not answer the question of whether funding from fossil-fuel companies should receive special scrutiny.

The new faculty committee will consider questions such as: Going forward, should Columbia receive support from fossil-fuel companies for its research? What are the potential risks and benefits of doing so? Does the type of research in question matter? Do all fossil-fuel companies warrant the same approach? In addition, the committee will consider what criteria should be used to assess fossil-fuel funding opportunities as they arise, and whether broad guidance can be developed to stand in for case-by-case evaluation.

The committee, to be chaired by arts dean Sarah Cole and engineering professor Keren Bergman, is expected to issue a final report by the fall of 2025. To carry out this work, the committee will seek input from students and student groups, faculty, researchers, and other constituents from across the University.



DANIEL ZARRILLI NAMED CHIEF CLIMATE AND SUSTAINABILITY OFFICER

Daniel Zarrilli, a civil engineer and climate-policy expert who joined Columbia as a special adviser on climate issues in 2021, has now been named the University’s first-ever chief climate and sustainability officer.

In this role, Zarrilli will lead and coordinate the University’s wide-

-ranging efforts to achieve its climate commitments and related sustainability goals. This will include overseeing the implementation and delivery of Columbia’s “Plan 2030” sustainability strategy, serving as an adviser to multiple University climate-related policy-development initiatives, and cultivating relationships with stakeholders across the University community. Zarrilli will also chair a new steering committee for climate action to align climate leadership across Columbia’s schools and campuses; collaborate with external partners to support Columbia’s sustainability initiatives; and advise senior leadership.

Zarrilli, who served as chief climate-policy adviser in the New York City mayor’s office before joining Columbia, now reports to chief operating officer Cas Holloway. Columbia’s Office of Sustainability, led by Jessica Prata, has become part of Zarrilli’s portfolio.

ALAN KANZER FUNDS NEUROSCIENCE FELLOWSHIP PROGRAM

Alan Kanzer ’65CC, a prominent New York attorney, recently donated funds to create a postdoctoral program at Columbia’s Zuckerman Institute that will support early-career scientists who pursue high-risk, high-reward research related to the mind, the brain, and behavior.

Participants in the new Kanzer Postdoctoral Fellowship program may be trained in a variety of disciplines and will be encouraged to carry out cutting-edge brain research under the mentorship of multiple faculty members.

Kanzer, a member of the Zuckerman Institute’s board of advisers, has given generously to the institute in the past, including for its artist-in-residence and writer-in-residence programs, which bring renowned authors, musicians, and visual artists to Columbia to explore intersections between the arts and sciences.

NEW ALL-ELECTRIC RESEARCH FACILITY RISING ON MEDICAL CAMPUS

The Vagelos College of Physicians and Surgeons recently broke ground on an eight-story biomedical-research building on Columbia’s medical campus.



The facility (shown in a rendering at right), located at the intersection of West 167th Street and Audubon

Avenue, will house state-of-art research laboratories, community-engagement spaces, and open lounge areas to facilitate spontaneous interactions and idea-sharing among scientists. It will be the main hub for Columbia researchers who are pursuing treatments for some of the most significant threats to human health, from cancer to neurodegenerative disorders.

Designed by the architecture firm Kohn Pedersen Fox, the new building will be the first university-owned research facility in New York City that does not rely on fossil fuels and that fully incorporates sustainability goals into all aspects of its design and operation. The new building will use significantly less energy than similar buildings of its kind. In addition, extensive use of biophilic elements such as “green walls” of plants and natural building materials will provide health and environmental benefits.

PROFESSORS ELECTED TO NAS, AAAS

Five Columbia professors were recently elected to the National Academy of Sciences and nine to the American Academy of Arts and Sciences. The faculty joining the NAS are economist Scott Barrett, food-systems expert Jessica Fanzo, biologist Oliver Hobert, biophysicist Arthur G. Palmer, and mathematician Duong H. Phong. The new AAAS inductees are journalist Daniel Alarcón ’99CC, novelist Paul Beatty, African-studies scholar Mamadou Diouf, political scientist Fredrick Cornelius Harris, epidemiologist Quarraisha Abdool Karim ’89PH, economist Serena Ng, legal scholar Eric Talley, psychologist Nim Tottenham ’96BC, and literary scholar Gauri Viswanathan ’85TC.

TOP: EILEEN BARROSO; BOTTOM: COURTESY OF CUIMC



Imagine the future. Build it together.

The impact members of the Columbia community have on the world during their lifetime and beyond is immeasurable. Join your community and begin planning for the future impact you envision—one that thoughtfully arranges for you, your loved ones, and the causes you care about.

Not sure where to start? Contact Ryan Hart, Executive Director of Gift Planning, at gift.planning@columbia.edu or **(212) 851-7857** to help identify unexpected ways you can make an impact.

BOOKS

Someone Like Us

By Dinaw Mengestu '05SOA (Knopf)

At forty-six, Dinaw Mengestu '05SOA may finally have aged out of his long-running status as a wunderkind — an overused term that in Mengestu's case was spot-on. The publication of his first novel, *The Beautiful Things That Heaven Bears*, in 2007, when the Ethiopian-born writer was twenty-eight, set off an international cascade of book prizes, fellowships, awards, and

honors. By 2014, Mengestu, still only thirty-five, had published two more novels — *How to Read the Air* and *All Our Names* — and won a MacArthur “genius grant.”

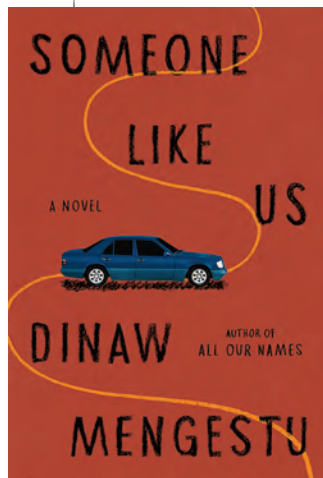
In *Someone Like Us*, Mengestu's newest novel, his fans will encounter many themes, preoccupations, and even characters familiar from the

first three (the protagonist of *The Beautiful Things That Heaven Bears* resurfaces here in a key supporting role). All four books delineate the immigrant experience in America in prose that is simple and unadorned, yet densely interwoven with recurring words, images, and motifs — and nearly always overlaid with a profound and abiding sadness. Mengestu's fiction seems at times determined to demonstrate the truth of Tolstoy's maxim about unhappy families — a truth that goes double, in Mengestu's world, for immigrant families in the US and triple for African immigrant families in the US, whose lives, in his rendering, are suffused with economic hardship, self-abnegation, alienation, and, often, despair (but each, per Tolstoy, in its own way).

When we meet Mamush, the narrator of *Someone Like Us*, his life is a shambles.

An Ethiopian-American raised in Chicago and Washington, DC, he now lives in Paris with his wife, Hannah, a French photographer, and their almost-three-year-old son, whose early vitality has deteriorated since his first birthday into near immobility, confounding French pediatricians. Mamush's career as a journalist is languishing to the point of oblivion, as is his marriage, particularly after Hannah confronts Mamush with “scattered remains of various pills and powders that I had crushed or snorted.” When he ends up traveling alone at Christmastime to the DC suburbs on what was originally intended as a family vacation that would introduce his son to his “not-quite American grandmother and almost-grandfather,” Mamush notes the “diminishing odds of our marriage surviving a weeklong separation.” This despite the intense love he and Hannah feel for each other, often expressed, as befits a writer and photographer, “through images, similes, metaphors, when something was like us, but not us.” Indeed, Hannah's most eloquent texts to Mamush often consist of a single image (reproduced here, in a meta touch, using photographs by Mengestu's wife, Anne-Emmanuelle Robicquet).

It is no spoiler to state that the other main player in this family drama — Samuel, the “almost-grandfather” who Mamush knows to be his father, though this has never been acknowledged — dies before Mamush makes it to his mother's door. The death is revealed in the novel's first sentence. Yet Samuel, an exhausted, pain-ridden, debt-laden, drug-dependent Ethiopian-born DC cabdriver with the heart and mind of a poet and eyes and ears that miss nothing, is powerfully alive throughout. Samuel is stuck in the classic immigrant bind of having fled political turmoil in his own country only to endure back-breaking, low-wage labor and constant racism in his adopted one. “It was always soldiers I was afraid of, but it's different in America,” he explains to Mamush,



after being wrongfully detained by DC police. “No one can understand the rules in this country.”

Samuel emerges in all his multitudinous contradictions via Mengestu’s intricate, almost indescribable artistry, which combines a present-day narrative with flashbacks, memories, passages from an unfinished manuscript that Samuel leaves behind, and, most heart-wrenchingly, an account of a road trip through the American Midwest during which Samuel and

Mamush have conversations they’ve avoided for a lifetime. On one stop, they visit an immigrant couple and their two children, whose festive Ohio home, decorated with Christmas reindeer and filled with palpable love, offers both men a glimpse of that elusive happy immigrant family whose existence neither has ever believed possible — a family that, in an alternate universe, Mamush begins to realize, could have been “us, or someone like us.”

The sleight of hand that Mengestu employs to depict this road trip — a magical mystery tour that helps ignite in Mamush a flicker of faith in his own future — is so deft that readers will be left gasping (through tears) and wondering, “How did he *do* that?” Whereupon they will immediately go back and reread the entire section — partly to figure it out, but mostly to savor it all over again.

— Lorraine Glennon

Woman of Interest

By Tracy O’Neill ’20JRN (HarperOne)

When the coronavirus pandemic hit the United States in 2020, it disrupted the rhythms of daily life and imbued even the most basic human interactions with potential danger. Those early months were a time of upheaval for all Americans, but for Tracy O’Neill ’20JRN, the isolation and uncertainty coincided with personal tumult. She broke up with the partner she’d been with for a decade and moved from her longtime home in Brooklyn to Poughkeepsie for a teaching job at Vassar College, deepening her seclusion. Amid this crisis of self, a period during which she found herself “unrecognizable,” O’Neill began an obsession with locating a missing woman — her birth mother.

O’Neill, a novelist and National Book Foundation “5 Under 35” honoree, was born in South Korea in 1986 and adopted as an infant by an Irish-American couple. Raised in New England, she long believed in the “O’Neill ethos,” which dictated that “family was formed not by nature but by the fact that you wanted enough to be family.” Until she was thirty-three, O’Neill hadn’t given much thought to learning more about the woman her adoption papers named as Cho Kee Yeon. But during the lockdowns of spring 2020, O’Neill — gripped by the thought that her birth mother might be dying alone in Korea — set out to find her.

In her stylish and perceptive memoir *Woman of Interest*, O’Neill documents her search. But rather than follow the typical arc of an adoptee’s quest for self-knowledge, the book mimics the form of a noir mystery. O’Neill casts

herself as the hard-boiled detective and her birth mother as the titular woman of interest, a femme fatale “whose committed crime was a birth.” The result is a darkly comic meditation on the difficulty of truly understanding others and, ultimately, oneself.

In adopting this frame, O’Neill affords herself the opportunity to play with language and form. Describing an early conversation with a private investigator who

claims to have once apprehended one of the FBI’s “most wanted,” O’Neill takes on the stylized rhythm of a character straight out of Raymond Chandler: “This is where I confess that when I began my investigation, the case had been cold over thirty years. And you can live with a cold case ... Solving is the aberration, and I’d copped no novel leads. But I had a clincher ... Namely: my life depended on this missing person. I mean she had been one of my mothers.” After the PI ghosts her, O’Neill tracks down her own leads — as she puts it, “staking out possibilities was, after all, a writer’s long racket.”

Her search bore fruit in December 2021. Thanks to a DNA test, O’Neill connected with a distant relative in Washington, who then connected her with her mother, whose name turned out to actually be Cho Kyu Yeon. O’Neill located not just her woman of interest but an entire cadre of Cho family members she had not known existed — aunts, cousins, and even three half siblings. Later that month, O’Neill flew to Daejeon, South Korea, where she spent ten days quarantining in a cousin’s apartment before staying with



her birth mother just outside Seoul.

In the chapters set in South Korea, O'Neill largely pulls back from the intense noir style, instead meditating on how her linguistic abilities and enthusiasm failed her in her pursuit of getting to know the woman who brought her into this world. Because O'Neill never learned Korean, she was forced to communicate with her birth mother and other Cho relatives using Google Translate and Naver Papago, apps that "burped" out text without tone and with questionable accuracy. "We played telephone on the telephone," O'Neill writes. Complicating matters, the story the Chos told themselves about O'Neill's birth and her birth parents' characters and relationship kept shifting. "Facts and lies are mixed," O'Neill's cousin tells her at one point, unconsciously summing up the Chos' approach to storytelling.

Woman of Interest does not end as a detective novel might, with the missing woman's true identity revealed and loose ends neatly tied up. Real life doesn't resolve so cleanly, and, as O'Neill writes, "the search is not always the search you think it is." But in reflecting on meeting the stranger who gave birth to her, O'Neill steps into a deeper conception of herself, becoming her own woman of interest.

— Kristen Martin '16SOA

Creation Lake

By Rachel Kushner '01SOA (Scribner)

"What is it people encounter in their stark and solitary four a.m. self? What is inside them?" asks Sadie Smith, the enigmatic narrator of Rachel Kushner's captivating new novel, *Creation Lake*. "Not politics. There are no politics inside of people."

And yet it is Sadie's job to surround herself with people whose politics rule their lives. A former undercover FBI agent ousted for entrapment, Sadie (not her real name) has been hired by a group of unnamed "contacts" to infiltrate Les Moulinards, a radical environmentalist commune in rural southwestern France. Its members, already suspected of arson at a construction site, are protesting a government-sponsored "mega-basin," which they believe will allow corporate farming to overtake the region.

Sadie seduces a young filmmaker to gain access both to his family's country home, near the commune, and to his childhood friend, Moulinard leader Pascal Balmy. Pascal, Sadie decides, is a rich kid gone rogue, who believes that "throwing yourself into any project in this society is useless, except for the project of destroying this society." But she becomes fascinated with Pascal's mentor, Bruno Lacombe, who has spent the last twelve years living in caves, emerging only to send periodic e-mails to the group.

Unlike Pascal, Bruno's worldview has been shaped by personal tragedy — a

difficult upbringing, war, imprisonment, and the loss of a child. And in the caves, his unorthodox views have evolved from anarchy to anti-civilization. He believes Neanderthals (or "thals," as he calls them) should have won the evolutionary race against *Homo sapiens*. And that the only hope for our poisoned planet is a return to our ancient ways of life.

As Sadie embeds further into the group and becomes more deeply engrossed in Bruno's e-mails, which she has intercepted, she begins to question her own life. "People tell themselves, strenuously, that they believe in this or that political position," she says. "But the deeper motivation for their rhetoric — the values that they promote, the lifestyle they have chosen, the look they present — is to shore up their own identity." Who, then, is the real Sadie Smith? What does she stand for? The novel reaches its climax as a national politician announces a visit to the region for an agricultural fair, and the Moulinards plan a protest, with more nefarious goals. With pressure from her "contacts" and an increasingly complicated relationship with members of the commune, Sadie has to decide what she believes and what her role will be.

Kushner '01SOA, a two-time National Book Award finalist, is known for her rich, multilayered storytelling, which in past novels has been channeled through a diverse set of voices and perspectives. In *Creation Lake*, which has already been longlisted for the 2024 Booker Prize, she uses only one narrator (two, counting Bruno's e-mails), of questionable reliability. But what a narrator Sadie is. Daring, witty, and intensely cerebral, she upends every spy-novel cliché, propelling the genre into the modern age.

— Rebecca Shapiro



READING LIST

New and noteworthy releases

THE UPTOWN LOCAL

By Cory Leadbeater '14SOA

When Cory Leadbeater was an MFA student at Columbia, his mentor — poet James Fenton — e-mailed him about a job as a live-in personal assistant to a “well-known writer.” That writer was Joan Didion, and Leadbetter spent the last nine years of Didion’s life by her side, arranging meals, ordering her Kleenex, and reading Auden poems to her before bed. For Leadbetter, who grew up “lonely and lower-middle-class,” Didion’s posh Upper East Side world was foreign. But the two shared something profound: grief. As Didion mourned the loss of her husband and daughter, Leadbetter was reeling from his best friend’s death and his father’s incarceration. His beautiful memoir about their bond would doubtless have made her proud.

LIKE MOTHER, LIKE MOTHER

By Susan Rieger

'76LAW On the surface, powerhouse journalist Lila Pereira really seems to have it all — the executive-editor job at the important Washington newspaper, beautiful children, and a hands-on husband who keeps it all together. But Lila’s youngest daughter, Grace, resents her mother’s demanding career. When Grace grows up, she writes a best-selling book about her pioneering mother, and in doing so uncovers dark secrets that help her see her family in a

new light. In her third novel, Susan Rieger, a former Columbia associate provost, writes with humor and warmth about the unique bonds between three generations of strong women.

THE PLAYBOOK

By James Shapiro '77CC

The Federal Theatre Project, established during the Great Depression as a way to employ artists, writers, directors, and theater workers, was one of the New Deal’s most successful programs. Between 1935 and 1939, more than a thousand of its productions were seen by thirty million people. The group was ahead of its time in many ways. But this risk-taking also led to the program’s downfall, when a zealous anti-Communist congressman labeled it “un-American” and pulled funding. Columbia literature professor James Shapiro’s all-too-resonant new book examines the history of the brief but influential project and the precarious relationship between government and the arts.

IN OUR LIKENESS

By Bryan VanDyke '00SOA

Graham Gooding is rising through the ranks at a tech startup when he is asked to test out a new algorithm designed to detect lies on the Internet. As he plays around with the program, Graham makes an edit in the online profile of his coworker, only to find that the change happens in real life. With the sudden power to alter reality, Graham has



some dangerous choices to make, especially when his ambitious boss finds out about this new development. In his debut novel, former tech employee Bryan VanDyke captures the both intoxicating and terrifying possibilities of the AI age.

JOHN LEWIS: A LIFE

By David Greenberg '01GSAS

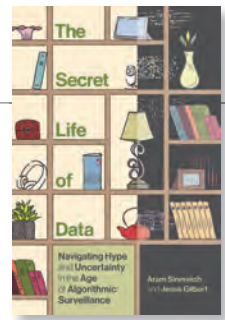
For the better part of six decades, John Lewis '97HON was known for making “good trouble” — first as a leader in the civil-rights movement and then as a member of Congress, where he served seventeen terms. Rutgers history professor David Greenberg’s new book is the first definitive biography of the monumentally accomplished politician. Drawing on interviews with Lewis and his friends and colleagues, along with archives, letters, never-before-seen FBI files, and even just-surfaced

film from Lewis’s hospital bed after he was beaten by Alabama police on Bloody Sunday, Greenberg crafts a nuanced portrait of a man some called “the conscience of Congress.”

LAZARUS MAN

By Richard Price '76SOA

Richard Price is famous for his vivid chronicles of life in urban America: his best-selling novel *Clockers* was made into a movie by Spike Lee, and Price counts *The Wire* and *The Color of Money* among his many screenwriting credits. In his latest novel, he turns to East Harlem, circa 2008. A five-story tenement has just collapsed, leaving six dead, several missing, and one miraculous survivor. Price moves seamlessly between different characters — the survivor, a city detective, a photographer, and a local funeral-home owner — creating a vibrant portrait of a community in crisis.



What Will Happen to Your Data?

In *The Secret Life of Data*, journalist, sci-fi author, and American University communications professor Aram Sinnreich '00JRN teams up with coauthor Jesse Gilbert to explore the unknown impacts of the digital age



Columbia Magazine: What do you mean by the “secret life” of data?

Aram Sinnreich: It’s what happens to data after its original purpose is complete. Our world is saturated with devices from laptops to voice assistants to smart refrigerators that know when you’re out of milk, but there’s no expiration date on the information produced by a single online event or interaction. When we upload a selfie, stream a video, look up directions, or track our sleep, these actions are recorded, analyzed, and combined with other data without our knowledge. This may be done over and over again in the future using techniques that may not exist yet.

CM: Why do corporations keep so much data?

AS: First, the cost of storage has become so cheap that it makes economic sense for companies to hold on to data in case it becomes valuable in the future. Second, there’s no legal reason *not* to do this — in the United States, we have zero federal laws against data collection.

As for how the information is currently used, tech companies have long sold data to advertisers, who use it to show us targeted ads. Now, with the artificial-intelligence revolution, those

companies are using our data to train generative-AI models. For example, if you use Gmail, Google analyzes all your e-mails. They anonymize your personal information, and they aggregate the data with that of millions of other accounts to help make Google chatbots and other AI systems more humanlike. Other companies like Meta, Amazon, and Apple are also using the photos you upload on social media and recordings captured by Alexa or Siri for their own AI models.

CM: What are some of the more troubling implications of data collection?

AS: With smart devices, data is being collected about you even when you might think you’re offline. For instance, investigative journalists recently found that General Motors’ roadside-assistance service OnStar had been sharing data about drivers’ bad habits with insurers, who in some cases raised customer premiums.

Our data can be stolen by hackers, used by repressive governments to monitor citizens, and accessed by ex-partners who want to keep tabs on us. Intelligence agents, police officers, and employees of social-media companies with access to massive databases have been known to abuse those resources by stalking or harassing former intimate partners and others.

CM: You have given examples of how data can be used for ill intent, but can’t those large and diverse data sets also be used in the public interest?

AS: Used ethically and transparently, big data can give us more nuanced understandings of everything from our political world to natural ecology. It can help urban planners reduce traffic congestion in a city by observing tran-

sit patterns. Or it can help analyze the medical records of millions of people to suggest new treatments for disease. It can make the global supply chain more efficient by assessing product demand, so that fewer gallons of gasoline are used to transport goods. There are all kinds of ways in which big data can and does improve the human condition. But without guardrails, it is just as likely — or more likely — to have countervailing consequences.

CM: Is it possible to avoid data collection — and exploitation — altogether?

AS: It’s very difficult. There’s almost nowhere you can go that’s not within range of the Internet. The latest versions of the iPhone have satellite chips. Our world is full of Wi-Fi hotspots and QR codes that merge physical and virtual spaces. Even on Mount Kilimanjaro, you can connect to a network and exchange data.

My most important tip is practicing “data kindness.” This isn’t just about protecting yourself; it’s about protecting one another. For example, you might want to ask for permission before posting pictures of your sibling’s family on social media.

The ethics of big data is a new area that society has yet to figure out. There are no simple answers as to whether it’s OK to submit your DNA — and effectively your relatives’ DNA — to a genetic-testing company, and so on. Only by being honest about technology can we begin to come up with an ethical framework. We don’t have to agree on the right policies, but we can all agree that we are producing much more data than we ever imagined, and this has many more consequences than we planned.

— Julia Joy

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Packing a Punch

How Herman Hollerith shaped the modern Information Age, from coding to voting

Shortly after Herman Hollerith 1879SEAS, 1890GSAS graduated from college at age nineteen, his engineering professor William P. Trowbridge offered him a job: statistician for the 1880 US census. Hollerith accepted, and a technological revolution began.

The Buffalo-born son of German immigrants, Hollerith witnessed firsthand the inefficiencies in a census process intended to count and categorize fifty million people. The 1880 census took seven years and cost around \$5.8 million — an exorbitant figure at the time. Given the growing US population, the 1890 census promised to be even more difficult and expensive. Hollerith believed he could do better.

His method for compiling statistics, which formed the basis of his PhD dissertation, involved punch cards using a numerical code: “If it is desired to record each single year of age, twenty spaces are used, divided into two sets of ten each, designated, respectively, from 0 to 9. One set of ten spaces is used to record the tens of years of age, while the other set is used to record the units of years of age. Thus, twelve years would be recorded by punching 1 in the first set, and 2 in the second; while 21 years would be recorded by punching 2 in the first set, and 1 in the second set,” Hollerith wrote in 1889. “Occupations may be arranged into arbitrary groups, each such group being designated, for example, by a capital letter, and each specific occupation of that group by a small letter. Thus, Aa would designate one occupation, Ab another, etc.”

An electromechanical apparatus could read data via the holes in the cards, explains Frank da Cruz '71GS, '76SEAS, an expert on Columbia's rich computing history. “A wire would pass through the holes into a cup of mercury beneath the card, thus creating an electrical circuit,” says da Cruz. “This process triggered counters and sorting bins, enabling the data to be tabulated.”

Hollerith's invention, which marked the birth of mechanical coding and prefigured the binary language of modern computers, impressed the Census Bureau, which used it for the 1890 census. Sixty-three million “Hollerith cards” — 6 5/8 inches wide by 3 1/4 inches high and printed with numbers and letters that could be punched in binary combi-

nations — were fed into forty-three Hollerith tabulating machines. The job took less than three years and saved the US millions of dollars in projected costs.

In 1896, Hollerith founded the Tabulating Machine Company, which was amalgamated into the Computing-Tabulating-Recording Company in 1911. Hollerith stayed on as a consultant until he retired in 1921. Three years later, the outfit was renamed the International Business Machines Corporation, or IBM.

Hollerith died in 1929. Shortly before this, Columbia education professor Benjamin D. Wood, seeking ways to automate test scoring, contacted the CEO of IBM,

Thomas J. Watson. In response, Watson donated data-processing machines that were based on Hollerith's principles. This allowed Wood to set up the Columbia University Statistical Bureau in Hamilton Hall, where the machines were also used by the astronomy department. Watson became a University Trustee in 1933 and funded the Watson Lab at Columbia, which spawned the world's first computing class in 1947. It also served as the workshop where John Lentz, who taught engineering at the School of General Studies, designed the IBM 610, which he completed in 1956 — arguably the world's first personal computer.

Meanwhile, Hollerith's tabulation system had spread to other fields, such as elections, starting in the 1960s. For more than fifty years it was

the standard for tallying votes, until it was supplanted by technology that would obviate problems such as those that occurred in Florida during the 2000 recount, when the term “hanging chad” — it might as well have been called a “hanging herman” — entered the lexicon. IBM's punch-card voting system, the Votomatic, was last used in two counties in Idaho in 2014.

Hollerith, who was married and had six children, lived out his years in Washington, DC, and that's where his relics are preserved today. His papers are in the Library of Congress, and his tabulating machine resides with the Smithsonian Institution, along with his framed diploma from Columbia.

— Paul Hond



Herman Hollerith's tabulating system, 1908.



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A Columbia Engineering student (left) and a Lamont-Doherty Earth Observatory postdoctoral research fellow (right) lay cables to deploy a geophysical imaging instrument across a fault line in Palisades, NY. Photo Credit: Sirin Samman

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