FALL 2020

COLUMBIA

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CHELSEA MILLER '18CC, COFOUNDER OF FREEDOM MARCH NYC, SPEAKS OUT

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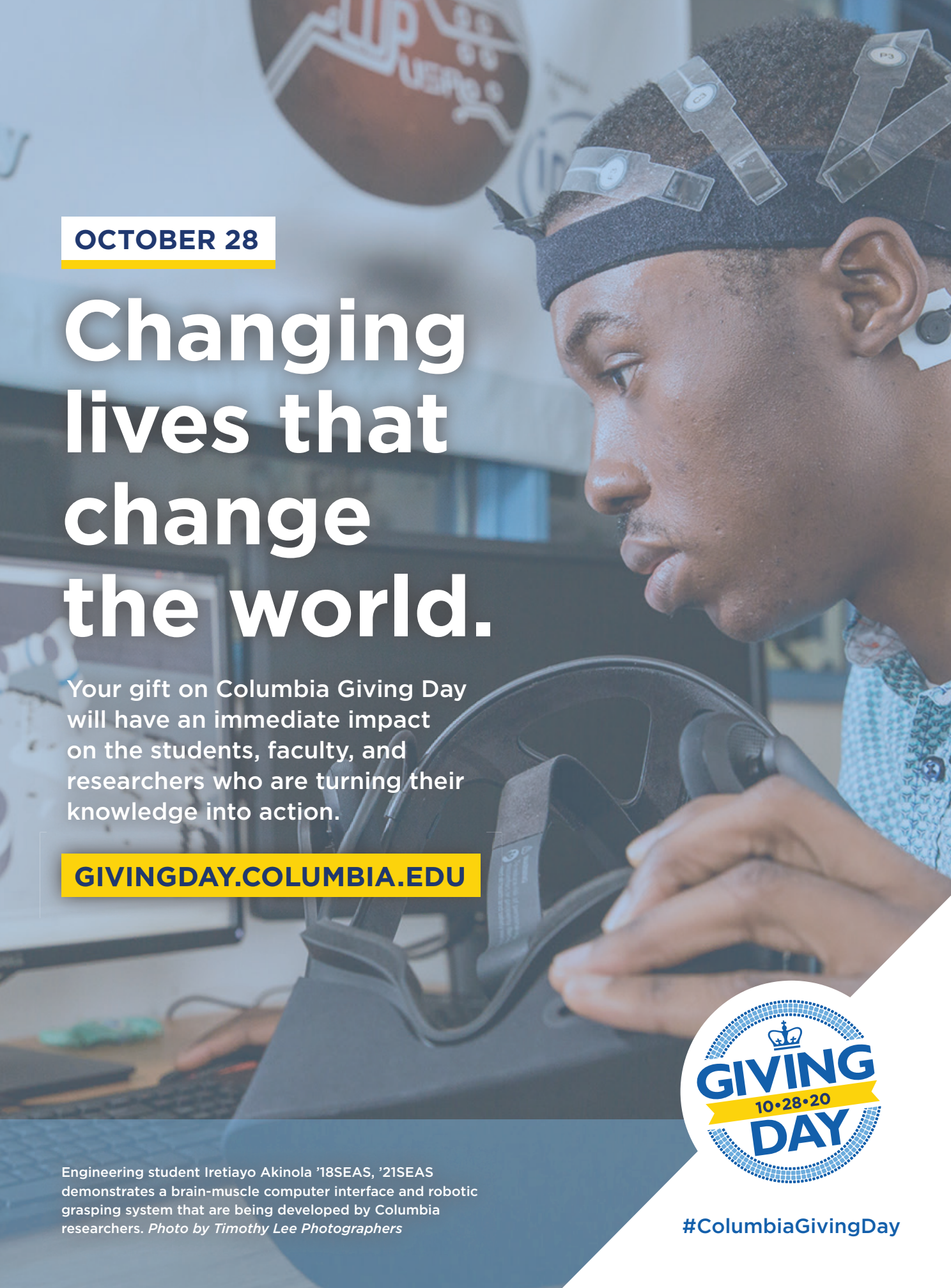

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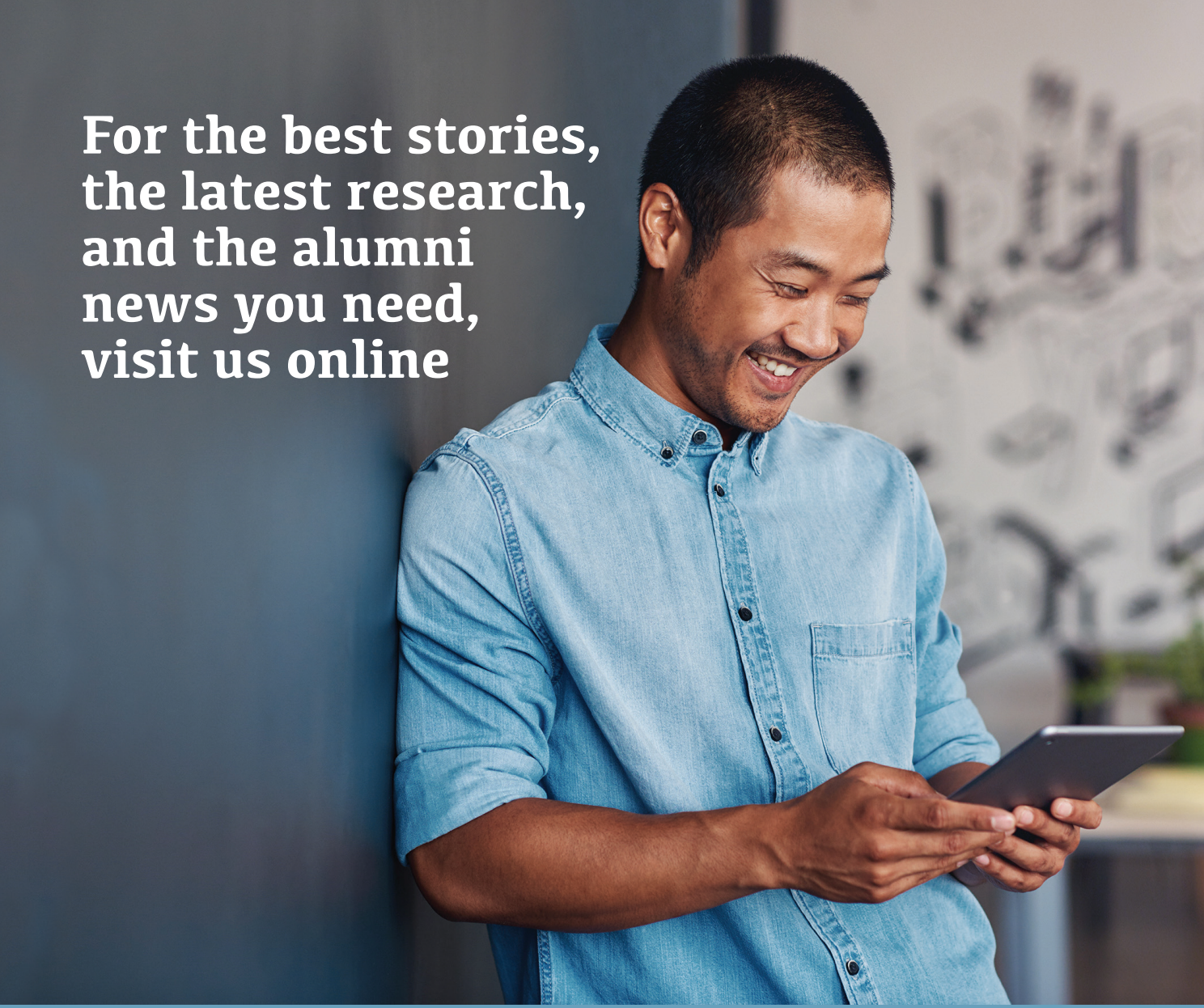
Engineering student Iretiayo Akinola '18SEAS, '21SEAS demonstrates a brain-muscle computer interface and robotic grasping system that are being developed by Columbia researchers. *Photo by Timothy Lee Photographers*



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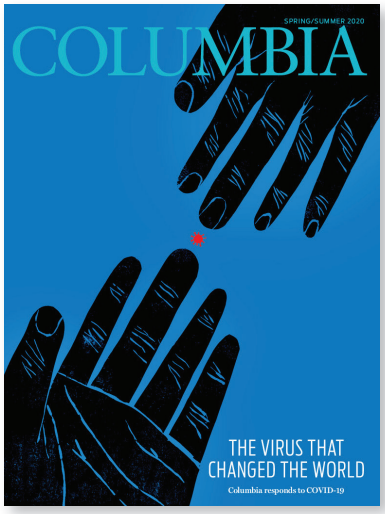

LONG-DISTANCE RELATIONSHIP

Columbia Magazine has been an ongoing pleasure for many years. I just finished reading the Spring/Summer 2020 issue, and every story — about the pandemic, about the organization of emeritus professors, about sexuality at twenty-first-century Columbia — was deeply meaningful.

I am retired in Florida and no longer able to return to the campus, but I feel deeply connected to Columbia and grateful for my time there.

James J. Griffith '48CC
Sarasota, FL

COVID-19 LESSONS

Many *Columbia Magazine* readers survived the 1957–58 influenza pandemic known as the Asian flu ("What We Have Learned from the Pandemic [So Far]," Spring/Summer 2020). It was very contagious, and almost everyone got sick and miserable. There was no attempt at either containment or distancing. It was disruptive socially and economically. There were no antivirals, and hospital ICUs were in their infancy. Flu vaccine became available only after the pandemic had begun. Mortality in the US due to the flu was estimated to have been between 70,000 and 116,000, but at that time the total population was half what it is today.

I look forward to my annual flu vaccine and hope that there will soon be a vaccine for COVID-19.

Stanley Gering '63CC
Phoenix, AZ

Your COVID-19 feature passes over major medical advances and seems to suggest that complacency has led to the current pandemic.

It notes that many infectious diseases have been brought under control. But it does not consider that these new epidemics — AIDS, Ebola, West Nile — may have arisen because of the success in controlling earlier infections and the slow but meaningful increase in life expectancy.

Having lived through measles, polio, various influenzas, and bacterial infections and having seen criticism of failures to anticipate them, I know that the epidemiologists' current complaints are valid. The suggested programs should be employed. But our planet will always be a breeding ground for human annihilation. History testifies to our ability to eventually recognize the threats and, fairly successfully, to deal with them.

So I will shelter in place and wear my mask when I go to the drugstore for all those pills that have helped keep me around to weather, I hope, another disaster.

Irvin Herman '52CC
Oakland, CA

LOVE STORY

It was heartwarming to read Ankur Paliwal's essay "The Laws of Love" (Spring/Summer 2020), an honest and forthcoming true story. Coming out is a personal process that deserves much self-reflection and action, akin to finding oneself. It must be especially challenging in the Indian context, and I was glad to read that

THREE CHEERS

Thanks for a great periodical. Always well-written, and wonderful topics!

Joan Katter '77GSAPP, '80BUS
New York, NY

I'm impressed with Columbia University, and *Columbia Magazine* has brought it to life.

Peter Hanson '63BUS
New Canaan, CT

Many thanks for the magazine. It's my solid connection to Columbia — in addition to the myriad e-mails, fund drives ...

Rao Kolluru '89PH
Portland, OR

Columbia and New York City played a role. Paliwal's story will no doubt inspire others to take charge of their own sexual identity, which is essential to being truly happy. I wish Paliwal all the best for the future he deserves.

Rajiv Mehta '77SEAS
Troy, MI

SWEET SPOT

Wonderful piece on Eli Lichter-Marck and beekeeping in the Spring/Summer 2020 issue ("A Taste of Honey"). Paul Hond really nailed the intricacies and intelligence of the honeybee society and the honor of caring for them.

It's great to see narrative profiles like this that throw a warm spotlight on this troubled species and help move folks from a place of fear and misunderstanding to appreciation. Like the psychology professor he interviewed, Kathleen Pike, I like to bring people in protective gear up to the hives, and it only takes a minute for them to go from freaked out to fascinated — even, and maybe especially, young kids. One of the nine-year-olds came back months later with his allowance in his fist, asking to get his mom honey for Christmas.

Lichter-Marck's path to becoming a beekeeper is an object lesson in how the fast track isn't necessarily the best one. Declaring a major doesn't always mean you know what your life's work should be, and kudos to the Shakespeare professor, Edward Tayler, who advised him to take his time. Lichter-Marck's travels through South America and experience surfing while assisting a beekeeper on the Chilean coast are great examples of the principle that following your curiosity might be the best beeline to success. We should all be so lucky as to have a professor like that in our path at the right time.

Nichole Bernier '93JRN
Wellesley, MA

WALK OF FAME

For old times' sake, it was good to see a picture inside Pulitzer Hall, once known just as Journalism Hall ("A Prize of a Desk," Rare Finds, Spring/Summer 2020). My year at 116th Street was one of the best of my life.

I even got assigned one morning to get up real early and meet former president Harry Truman and his old pal James Farley at the Carlyle Hotel and walk with them to their breakfast at the Waldorf Astoria. What a thrill for this young Columbia J-school kid. The only other walker besides Secret Service was Gay Talese, then a young *Times* reporter. I treasure a picture (below) of the four of us walking together. The president could not have been nicer to us, and what a fast walker he was, left over from his World War I doughboy days.

Columbia Journalism School prepared me well for my forty years as a daily newspaperman, mainly at the *Baltimore Sun* and *Evening Sun*, until my retirement in 1999.

Ernest F. Imhoff '60JRN
Baltimore, MD

From left: Ernest F. Imhoff, Gay Talese, Harry Truman, and James Farley.

COURTESY OF ERNEST F. IMHOFF

WELL-AGED

I enjoyed your story about retired educators, and especially their gathering to play chamber music ("An EPIC Adventure," Spring/Summer 2020). Since many chamber-music workshops are being canceled this year, perhaps these folks could organize one next fall or spring or summer that might include alumni musicians. I'd love to meet up with some of these folks for a chamber workshop and conversation.

I've discovered that chamber music is the best part of my retired life. I'm sorry I gave up music for so many years. Now I play violin and viola and sing.

Dave Rosedahl '69CC, '72LAW
Hopkins, MN

KEY TO ABBREVIATIONS

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

Over the past two decades, we have made great progress in purging our language of sex-based assumptions: we no longer take for granted that the person doing this job or that is male or female. Policemen have become police officers. Mailmen are now postal carriers. We won't get rid of "midshipman" or "first baseman" any time soon, but the trend is clear.

That's why it was surprising and distressing, in your interesting article about EPIC, to see Frances Pritchett (among others) identified as "professor emerita." There is no such title. If you take "professor emeritus" to be Latin, the adjective is masculine because the noun is masculine. If you think the expression is now English, our language does not change adjectival forms with the sex of the person described. Given that we are trying to degenderize the language, what is the point of inventing a phony title to be used only for women? *Emerita* is a genus of marine crustaceans. Leave it there.

Thomas W. Lippman '61CC
Washington, DC

We wholeheartedly share your desire to root out sexist language. The problem is that "professor emerita" is indeed a real title — one, in fact, that's written into Columbia's statutes. Then there's the question of what to replace it with: declaring that "emeritus" is suddenly gender-neutral strikes some as being like saying the same about "mailman." If only "professor emerit" had taken hold the way "alum" did! — Ed.

EQUAL JUSTICE

The remedy for special religious exemptions for Hobby Lobby and other businesses owned by conservative Christians is not to expand those exemptions to encompass progressive or humanitarian causes but to eliminate all unconstitutional religious preferences ("A new twist on religious liberty," Explorations, Spring/Summer 2020).

In a January 1, 1802, letter to the Danbury Baptist Association, Thomas Jefferson wrote, "I contemplate with sovereign reverence that act of the whole American people which declared that their legislature should 'make no law respecting an establishment of religion, or prohibiting the free exercise thereof,' thus building a wall of separation between Church & State." In fact, the "wall of separation" dates even further back, to 1644, when it was coined by Roger Williams, the Christian dissenter and founder of the colony of Rhode Island.

Breaching the wall of separation between church and state by affording special religious exemptions is a recent development dating back to 1963. Since then the courts and legislatures have been enmeshed in a tangle of confusing, inconsistent, and ever-changing legal standards, seeking to figure out whether a religious belief is "sincerely held," whether an exemption "substantially burdens" a person's religious exercise, whether a law is "valid, neutral, and of general applicability," and whether denying an exemption serves a "compelling governmental interest."

During the COVID-19 pandemic, demands for special religious exemptions have added a deadly dimension to this controversy. Laws enacted in the public interest should be uniformly enforced regardless of religion, race, ethnicity, gender, or national origin.

Stephen Rohde '69LAW
Los Angeles, CA

Autumn arrives at Butler Library.

AUTHOR! AUTHOR!

I was thrilled to read your fine review of Erik Larson's *The Splendid and the Vile*, (Books, Spring/Summer 2020). I have read all of Larson's books, including *In the Garden of Beasts*, *Thunderstruck*, and *Isaac's Storm*, and I eagerly await his next. The research he does is astounding! Thank you for recognizing him.

Mary Anne Anderson '58NRS
Covington, KY

MISS YOUR FACE

Finally! Some pictures of Low Library and College Walk ("Quiet Contemplation," College Walk, Spring/Summer 2020). You don't realize how many years it's been since some of us have been back, and I don't care how good your articles are — *I just want to see some pictures now!*

Gerald R. DeMaagd
Kentwood, MI

We've included the photo above just for you. — Ed.

QUESTIONS? COMMENTS?

WE WELCOME THEM ALL!

E-MAIL US AT:
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We're working remotely for now, so keep those stamps in the drawer and e-mail us instead.

Letters may be edited for brevity and clarity.

WILL HARAHAN

A Matter of Black Lives

African-American professors discuss police violence, protest, and change

Two weeks after the murder of George Floyd, and in the midst of protests decrying police violence against African-Americans — protests that were taking place across the country and around the world — five Black Columbia professors and two administrators gathered online for a virtual panel discussion for the University community. Hosted by Suzanne Goldberg, a law professor and the executive vice president for University Life, and Dennis Mitchell '97PH, a professor of dental medicine and the vice provost for faculty advancement, the talk was a searching, somber, aching exploration of issues that have recurred so often, and without resolution, that the moderator, journalism professor Jelani Cobb, remarked, "I don't know how to keep writing about it — at some point you sit down and say, 'I've said everything I can think to say on this subject.'"

Yet in a conversation that lasted more than ninety minutes, centering on what Mitchell called a "centuries-old epidemic of Black deaths at the hands of police and self-appointed vigilantes," the professors stepped up to address racial injustice and the growing strength of the Black Lives Matter movement.

"I've been around long enough to say what I'm seeing is qualitatively different," observed Robert Fullilove '84TC, a professor of sociomedical sciences at the Mailman School of Public Health, referring to the thousands of white allies at anti-racism demonstrations. But he also had a grim sense of déjà vu. In June 1964, as an undergraduate at Colgate University and a field secretary for the Student Nonviolent Coordinating Committee, Fullilove was in Mississippi registering Black voters when the KKK and the local police executed three of his colleagues in a case the FBI dubbed "Mississippi Burning"; and in July 1967, after he returned to his hometown of Newark, New Jersey, police brutalized a Black cab driver and "Newark went up in flames," Fullilove said.

In fact, as Cobb pointed out, most of the major urban uprisings of the past hundred years have been precipitated by police violence: Harlem in 1935, 1943, and 1964; Watts in 1965; Newark and Detroit and Minneapolis in 1967; Miami in 1980; Los Angeles in 1992; Ferguson in 2014; Baltimore in 2015; and, in 2020, the unprecedented nationwide demonstrations sparked by the casual torture and killing of George Floyd. "How," Cobb asked the panelists, "do you make sense of this professionally?"

Courtney Cogburn, an associate professor of social work, found it puzzling that many white people were outraged over the Floyd murder in particular, given that unjust killings by the authorities are a situation that Black people "have been yelling and screaming about for centuries." Asked by Cobb if it bothered her that people have been so blind to this reality as to be shocked by Floyd's death, Cogburn said it was "infuriating" and noted that many have long discounted the significance of racism in the analysis of social problems. "I'm trying to understand what it is about this moment that feels so different to people," she said. "Is it an accumulation? The sequence of events?"

That sequence includes not only the recent high-profile killings of Floyd, Breonna Taylor, and Ahmaud Arbery but also the devastation that COVID-19 has visited on communities of color. History professor Frank Guridy said the racial disparities laid bare by the pandemic had filled him with a "cocktail of emotions: anger, rage, despair, sadness, and gratitude on the verge of survivor guilt" for the privilege he has, as an academic, "of sheltering in place while Black and brown people are exposed to keep the country going." Yet despite the ongoing police violence, Guridy has been inspired by the racially diverse street protests, seeing in them "the revitalization of American democracy."

To find out why policing has been allowed to "go virtually unchecked," Cobb turned to Olatunde Johnson, a professor of law who spent five years at the NAACP Legal Defense and Educational Fund. Johnson referred to the legal doctrine of qualified immunity, which often shields police from lawsuits for using

excessive force in the interest of "letting them do their job," she said. She connected this to the deeper racist legacy of Southern slave patrols and their influence on police departments. After emancipation, the desire to maintain social control over Black people translated into "deputizing a police force that was essentially operating as the visible branch of the KKK."

Johnson named some legal changes that local, state, and federal governments have recently made or are considering: banning chokeholds and no-knock warrants; tracking officers who have engaged in misconduct; shifting money from the police to social programs; and amending civil-rights laws to make it easier to hold the police accountable. But real change, said Johnson, will require a wholesale rethinking of public safety.

With the lens trained on policing, and with the NYPD under scrutiny for its treatment of Black and Latino communities, Goldberg took the opportunity to respond to social-media posts that had claimed the University has a contract with the NYPD to monitor its campuses. She said there is no contract between Columbia and the NYPD. Rather, New York State mandates that colleges coordinate investigations of violent felonies or missing students with local law-enforcement agencies, and Columbia has a "memorandum of understanding" with the NYPD that recognizes how the University's department of public safety will cooperate with the police when required to do so.

In any event, systemic racism in higher education demands a "very honest conversation," said Cogburn. "It's clear to me how few people, including those at Columbia, really understand our racial history and the web of racism and the way it functions in our society. That understanding and clarity is critical to any solution." Fighting for racial equity out in the world is one thing, but it is quite another, she said, to think critically about ourselves — "who we are and how these very same systems function within the University."

All the panelists expressed optimism that the current protests will lead to changes not just in the criminal-justice system but also in the cultural and historical assumptions that undergird white supremacy. The moment has come, said Fullilove, for a nation "that built its wealth on slavery" to face a reckoning.

"And in the course of that reckoning," he said, "we're going to continue, survive, and think of new ways to approach these problems. That's my hope."

— Paul Hond

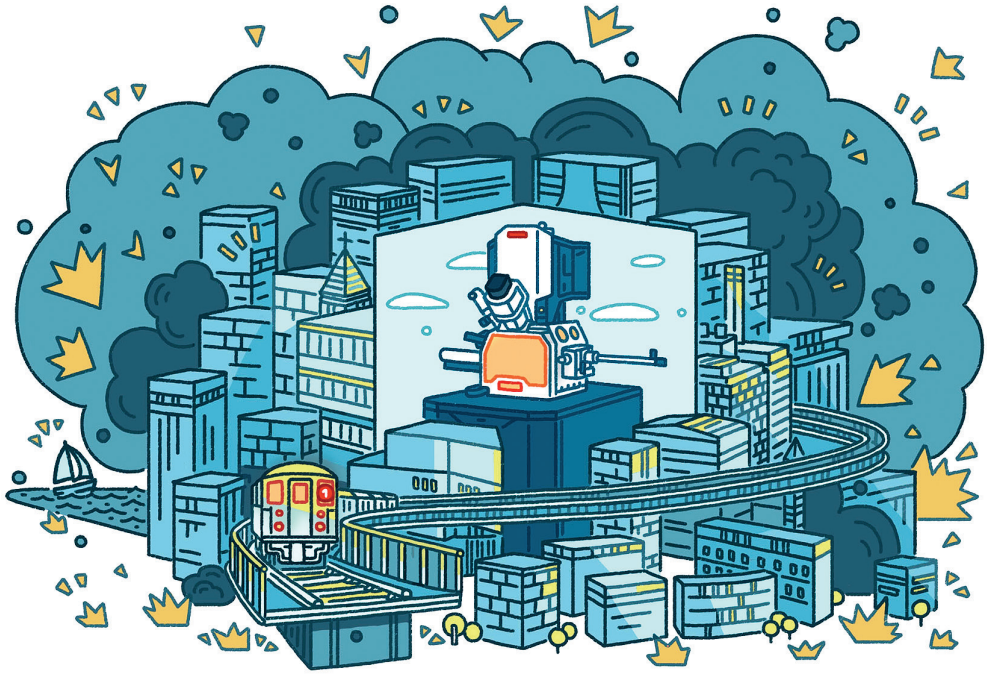
PHOTO: JON-MATT HOPKINS; PAINTING: @ARTISTSFORGEORGE

SIGN OF THE TIMES

Jon-Matt Hopkins '20BUS was sitting on the Low Library steps when a man, perhaps coming from a protest, approached *Alma Mater* carrying a portrait of George Floyd. Hopkins, emotionally jarred by the image, got up to help him put it in the statue's hand. He then took this photo and posted it on social media. For Hopkins, who is Black, the symbolism is clear: "Being associated with Columbia is inherently a privilege," he says. "All of us in the University community share a responsibility to use that privilege to illuminate the marginalized."

New Digs for a New Microscope

To focus on Alzheimer's and other neurodegenerative diseases, you need to create a zen space in this very noisy city



HAYDEN MAYNARD

While COVID-19 halted most activity on Columbia's campuses in the spring and summer, it did not stop the march of progress. At the Jerome L. Greene Science Center, at 129th Street and Broadway, scientists welcomed the arrival of a microscope of unmatched capabilities — one that might help unravel some of the brain's most consequential mysteries.

The microscope, which measures two feet wide by three feet high, is called an Aquilos Cryo-FIB: "cryo" because it freezes tissue samples at -274°F and "FIB" because it uses a focused ion beam to peel away cell layers. The refined layer is called a lamella — a window into the cell itself, thin enough to allow electrons to pass through it. And it's through this window that Anthony Fitzpatrick, an assistant professor of biochemistry and molecular biophysics who runs a lab at Columbia's Zuckerman Institute, captures images of the tangled proteins that are implicated in neurodegenerative diseases like Alzheimer's, Parkinson's, and Lewy body dementia. (See "Toxic Alzheimer's Proteins Exposed in New Detail" in the Explorations section of the Spring/Summer 2020 issue.)

The Aquilos is a delicate instrument. Made by Thermo Fisher Scientific of Waltham, Massachusetts, it is highly sensitive to humidity, electromagnetic fields (areas of energy associated with electrical power), and high- and low-frequency sounds. With the bone-shaking rattle of the elevated 1 train less than a block away and the ongoing deep-excavation construction of the Manhattanville campus, protecting the Aquilos from invisible forces is no small feat: even footfalls can disturb the machine's equilibrium.

When you consider the microscope's needs, it becomes clear that it takes many people apart from scientists to make it possible to peer inside a neuron. In a complex renovation overseen by Marcelo Velez '00BUS, vice president for the University's Manhattanville development project, a small army of civil engineers, builders, and technicians were tasked with transforming a small room into a veritable fortress for the new machine.

First, Columbia Facilities identified an underused MRI workshop in the bowels of the Greene Science Center, sixty feet below ground level, as far removed as possible from noise inside and outside the building. Next, the walls, floor, and ceiling were coated with epoxy paint to create an anti-moisture "vapor barrier." A vibration-isolation table, a device containing steel springs and sensors, holds the microscope and keeps it stabilized. And because electromagnetic activity, such as that from the high-voltage lines that run under Broadway, can deflect the microscope's electron beams and distort its images, workers also installed a magnetic-field cancellation system, which reads the ambient field and produces an opposite, neutralizing field.

"The vibration levels that we measured before we started were borderline, so we considered not taking some of these extraordinary measures," says Velez. "But in the end, considering that the

impact of future construction is unknown, we decided that this was the best strategy to take."

The acquisition of the Aquilos is part of a $2.84 million National Institutes of Health grant that will allow Fitzpatrick and his team to combine the unrivaled imaging capabilities of the Aquilos with those of the Krios Cryo Transmission Electron Microscope. Also made by Thermo Fisher, the Krios employs technology developed by Columbia biophysicist Joachim Frank, for which Frank won the 2017 Nobel Prize in Chemistry. After Fitzpatrick and his team use the Aquilos to prepare the lamella, they take the sample across the hall to the Krios, which produces three-dimensional images of the proteins by firing electrons into the cell interior. Then the Fitzpatrick lab painstakingly assembles those images on computers to reconstruct the interior of the cell and form a coherent picture of the proteins.

With the Aquilos now firmly ensconced in its specially constructed chamber and ready for action, Fitzpatrick has a dream setup that will allow him to map the structure of the proteins that account for different neurodegenerative diseases. "If you don't understand how the protein is put together, you can't figure out how to disassemble and neutralize it," Fitzpatrick says. "And the Aquilos microscope, paired with the Krios microscope, is the most powerful way of looking at cells that we have."

— Paul Hond

INTERFOTO / ALAMY STOCK PHOTO

THE NIGHTINGALE EFFECT

Columbia's dean of nursing honors the Lady with the Lamp

The light of Florence Nightingale shines brightly at Columbia. The Augustus C. Long Health Sciences Library houses one of the world's richest collections of materials relating to the nursing superstar, including letters, a family Bible, photographs, diary fragments, and an inscribed first edition of Nightingale's groundbreaking 1860 work *Notes on Nursing*. And this September, Lorraine Frazier, dean of the School of Nursing, planned to celebrate the bicentennial of Nightingale's birth by taking alumni to key sites in the life of the fabled Victorian health reformer.

Frazier's tour of London, organized by the Alumni Travel Study program, was to have included visits to the Florence Nightingale Museum, the National Army Museum, and the Nightingale memorial in St. Paul's Cathedral. But the trip was postponed due to COVID-19 — a pandemic that evokes Nightingale's legacy. "Like today, illness was more common in areas without health resources, and Florence would go to where people were underserved and vulnerable," says Frazier.

Born in 1820 to an aristocratic English family, Nightingale was a brilliant, educated, iron-willed woman who revolutionized health care and established the modern nursing profession. Her parents opposed her desire to become a nurse, viewing it as demeaning. Nevertheless she persisted. "She wasn't interested in being a woman of wealth," says Frazier. "She knew what she wanted in life; she had a calling."

In 1854, during the Crimean War, Nightingale, who had trained as a nurse with nuns in Germany and France, led a group of nurses to the Scutari Barrack Hospital in Constantinople to care for ailing soldiers shipped there from the front lines. The conditions at the hospital were appalling, says Frazier. Disease, filth, and vermin were rife, and Nightingale, a demon for hand-washing and hygiene, gained insights into ventilation and sanitation. "She really was ahead of her time," Frazier says.

In her nightly rounds among the rows of hospital beds, Nightingale earned the moniker Lady with the Lamp, a vision of comfort to the dying. She returned to Britain a celebrity and prominent health advocate and in 1860 founded a nursing school at St. Thomas' Hospital in central London — the first in the world and the

model for future nursing education. "Florence was a trailblazer," Frazier says. "She studied Greek, Latin, and mathematics and pioneered statistical methods that we still use today."

Frazier grew up in Northern Ireland, where, she says, nurses are venerated. When she was eight, her parents, escaping the political unrest of the region, immigrated to America, settling in Houston. A few years later, Frazier's father developed renal disease, and Frazier ended up spending a lot of time in hospitals. "We didn't know the health-care system, and we were scared," says Frazier. "My father was sick, and my mother didn't know how we were going to survive." After years of dialysis and medical setbacks in what Frazier describes as a "family journey," her father died from his illness, and Frazier recalls how meaningful it was to her that the nurses and doctors showed real empathy for everyone in her family. "They were taking care of our needs and knew what we needed to hear," she says. "I remember being so grateful. I wanted to be the person to come in the room and show the family that I cared."

> "She wasn't interested in being a woman of wealth. She knew what she wanted in life; she had a calling."

Years later, Frazier and her husband had a child, Molly, who is developmentally disabled and can't speak or walk. "That has helped me think differently about health," says Frazier. "She's the most vulnerable person you could ever meet, and she educates me every day." Raising Molly underscored Frazier's belief that "sickness is a family event, not an individual event," she says.

Frazier can draw a straight line from Nightingale's values to her own and to those of the school she leads: the conviction that everyone has the right to good health care and a safe medical environment and that health-care workers should be given a well-rounded education. She says the best way to honor Florence Nightingale's legacy in the US would be for lawmakers to invite nurses to the table to talk about health-care policy. "We're trusted because we don't have a conflict of interest in health care. We need to be there when policies are looked at. We're trained to give that health care, from birth to death. Let us serve on boards and committees and honor that calling that Florence had and that we still have. We're underutilized and highly educated, and there's a need for us to be out there. We're ready." — *Paul Hond*

A Song for the Ages

The Class of 2020 receives an unusual gift from two Broadway stars

Tom Kitt and Ben Platt

Tom Kitt '96CC sat down at his keyboard and searched for the right notes. It was April, COVID-19 was raging in New York, and Kitt, who's written, arranged, and orchestrated music for Broadway shows like *Next to Normal*, *American Idiot*, and *Jagged Little Pill*, had just gotten a phone call from Donna MacPhee '89CC, vice president of alumni relations at Columbia and president of the Columbia Alumni Association (CAA).

MacPhee had been thinking about Commencement. The ceremony had been moved online, and members of the Class of 2020 would miss out on the once-in-a-lifetime experience of gathering on Low Plaza in their blue caps and gowns. It was a huge loss, and the CAA wanted to celebrate the graduates with a special gift. MacPhee asked Kitt if he would compose a song in their honor.

If anyone can be said to be a dyed-in-blue Columbian, it's Kitt. He received the University Medal for Excellence in 2012 and the John Jay Award in 2019. His father, Howard Kitt, attended Columbia, and his brother, Jeffrey Kitt '88CC, '93GSAPP, and his wife, Rita Pietropinto-Kitt '93CC, '96SOA, are alumni (he met Rita, who would later serve as chair of the CAA's board of directors, during his freshman year). A classically trained pianist with a love for pop, Kitt, who grew up on Long Island, majored in economics and was musical director for two Varsity Shows, which kindled a love for musical theater and set him on a path that led to a 2009 Tony Award and a 2010 Pulitzer Prize for *Next to Normal*.

LEN SMALL/COLUMBIA

And so Kitt, who's worked on rock songs, folk songs, and R&B songs, on arias and lullabies, dug into what he calls a daunting assignment: to write and record a new Columbia school song. "It certainly took some soul-searching and stops and starts," says Kitt. "I wanted it to be an emotional song and hopefully a comforting song and a galvanizing song."

First, though, he needed a voice. There was someone in particular he wanted to ask: his friend Ben Platt, whose time at Columbia's School of General Studies was curtailed in 2012 when he was cast in *The Book of Mormon*. Platt went on to win a Tony Award in 2017 for his star turn in *Dear Evan Hansen*. "Ben is such a special, otherworldly talent," says Kitt. "But for all his enormous skills, he's so incredibly earthbound and gracious and kind." Platt, who stars in the Netflix series *The Politician*, said yes on the spot.

To write the song, Kitt drew on his college experience with the Columbia a cappella group the Kingsmen, whose repertoire includes Columbia's two school songs, or alma maters. The first lines to "Sans Souci," the Columbia College alma mater, written by Percy Fridenburg 1886CC, echoed in Kitt's brain: *What if tomorrow bring / Sorrow or anything / Other than joy?* In the midst of the pandemic, those words "had a whole new meaning for me," Kitt says. He also thought of "Stand, Columbia," the University alma mater, written by Gilbert Oakley Ward 1902CC. "I kept thinking of a procession and how the graduates can't be with each other physically, so how can they occupy the space of a procession virtually?"

Dressing the alma mater in modern garb, Kitt blended elements of the past, present, and future. The title "Oh, Columbia" conjures a traditional ode, but the song's first line, *I'd do anything to be by your side*, could be the beginning of a modern love song, and in many ways it is.

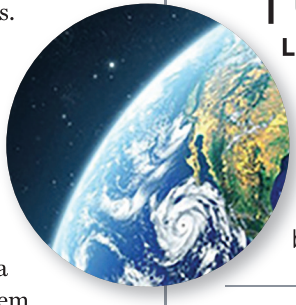
"It means, I'd do anything to be with my fellow classmates right now, and with the institution itself," Kitt says. By the final verse, the listener is called to *raise a glass to our old Broadway / Where we shall raise one together someday*, promising the return of human contact.

School songs are meant to be enduring, to be sung by generations not yet born, and Kitt appreciates the potency of old songs written at historic moments and the mysterious weight that attaches to them when sung in the present. He imagines students fifty years from now saying, "Yeah, I think this was written during the pandemic."

The song debuted on YouTube at the end of the 2020 Commencement: just Platt at home, wearing headphones and singing into the camera. The video quickly racked up nearly thirty thousand views and dozens of heartfelt comments. In a season of much sadness and uncertainty, Kitt had found a way to connect with an audience and spread a unifying message.

"I want the song to convey the hope that, knowing how precarious things can be, we'll really take care of one another and the world that we live in," he says. "These students are the ones who are going to lead the charge of bringing us back and making the world much stronger and better. I just wanted to send a message of hope to them, that with these moments in history comes great resurgence — that you're going to be part of that resurgence, and Columbia will be here for you when that happens."

— Paul Hond



THE SHORT LIST

WATCH The Columbia Alumni YouTube channel has a wide range of videos, including musical performances, recordings of past events, and the new "**Columbia at Home**" series, which features insight and advice from alumni and faculty on a variety of topics. *youtube.com/user/ColumbiaAlumni*

SEE Visit the website of Columbia's **Wallach Art Gallery** for virtual walk-throughs of shows and recordings of past lectures. Online exhibitions include *Reframing the Passport Photo*, curated by graduate student Hannah Morse, and last year's acclaimed *Posing Modernity: The Black Model from Manet and Matisse to Today*, from Denise Murrell '14GSAS. *wallach.columbia.edu*

LEARN Intellectuals (and the intellectually curious) can visit the website of Columbia's **Heyman Center for the Humanities** to stream lectures on topics as diverse as the work of H. G. Wells, women and the American Civil War, and DNA analysis and the politics of paternity. *heymancenter.org/media*

TUNE IN Start streaming **Earth Institute Live**, a series of online talks on today's most pressing science and sustainability issues. Hosted by Andy Revkin '82JRN, the program features speakers from the Columbia science community and beyond. *earth.columbia.edu/videos*

DISCUSS Bookworms are encouraged to join the **Columbia Book Club**, a virtual community where alumni, students, and friends can have discussions in moderated forums. *pbc.guru/columbia*

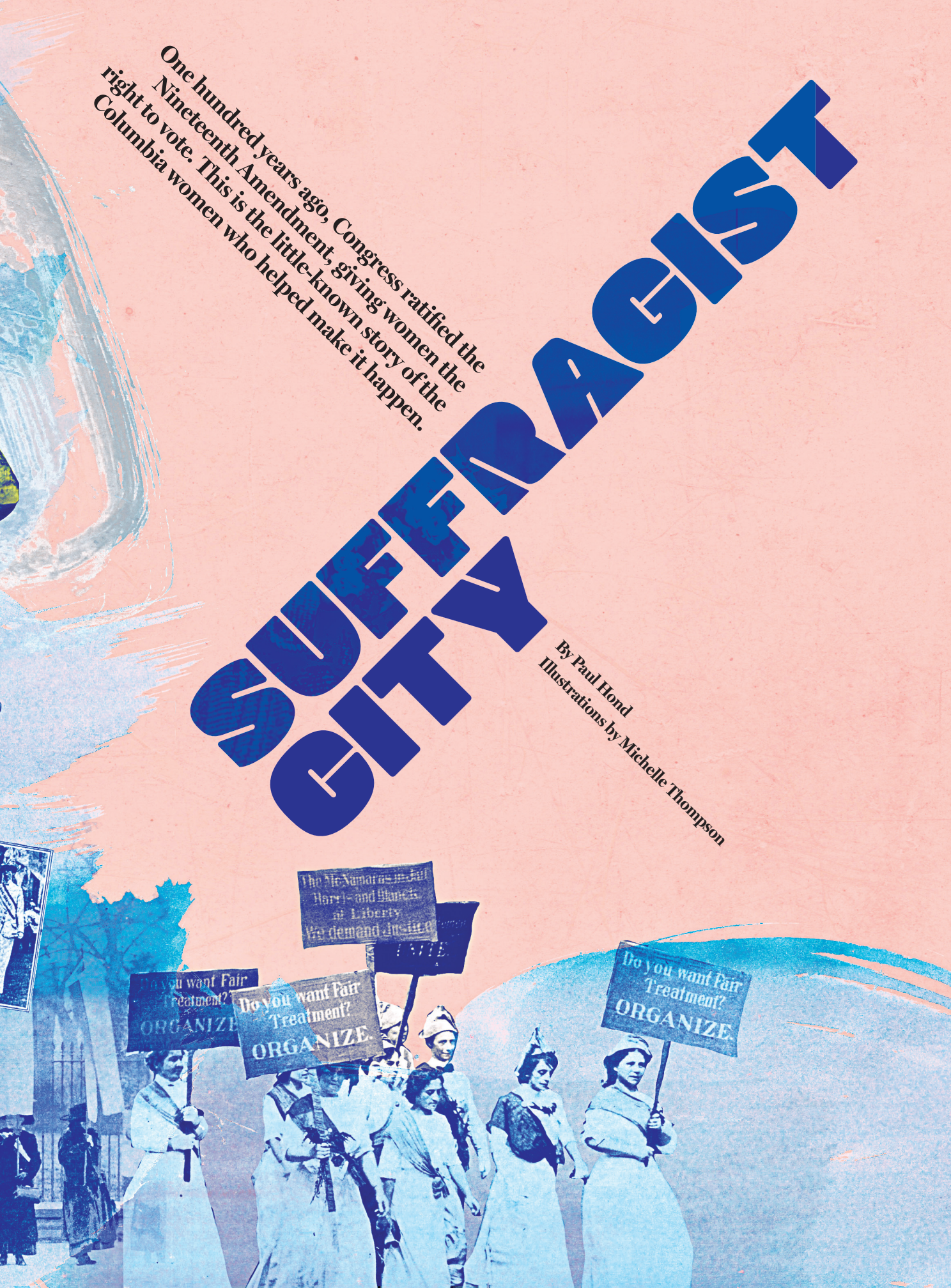
COLUMBIA


Official Program
WOMAN SUFFRAGE
Procession
VOTES for WOMEN
Crystal Eastman
Mabel Lee
Alice Paul
MR PRESIDENT
HOW LONG
MUST
WOMEN WAIT
FOR LIBERTY

SUFFRAGIST CITY

One hundred years ago, Congress ratified the Nineteenth Amendment, giving women the right to vote. This is the little-known story of the Columbia women who helped make it happen.

By Paul Hond
Illustrations by Michelle Thompson



The parade started at 5:00 p.m. at Washington Square Park.

As the sun wheeled to the west, rods of golden light brightened the white dresses of the suffragist leaders, fired the yellows and purples and greens of their banners and flags, and shimmered on the flanks of the fifty horses poised under the park's grand arch. It was May 4, 1912, and the women riders were set to lead a procession up Fifth Avenue to Carnegie Hall. With ten thousand marchers and thousands of spectators jamming the sidewalks of the three-mile route, New York was witnessing a spectacle like none other in its history.

For more than sixty years, suffragists had been demanding the enfranchisement of women in America, and progress had been painfully slow: by the spring of 1912, just five states, all in the West, had given women the right to vote. But two events in 1911 helped make this suffrage parade the biggest one yet: a fire in the Triangle Shirtwaist sweatshop on Washington Place that had trapped and killed 146 people — most of them young women — and the state legislature's failure to pass women's suffrage in New York.

Sixteen-year-old Mabel Lee 1917BC, 1918TC, 1921GSAS, then a student at Erasmus Hall High School in Brooklyn, touched the brim of her broadcloth hat and shifted in her saddle. Riding in the vanguard, she turned to survey the flood of marchers in her wake. There were nurses, teachers, writers, dressmakers, cooks, and actresses. Men gazed silently from the windows of their social clubs. Some on the street jeered, "Who's minding the babies?"

Male marchers, among them Columbia philosophy professor John Dewey, Columbia economics professor Vladimir Simkhovitch (who years later would become Lee's dissertation adviser), and the writer and activist Max Eastman (who studied philosophy at Columbia with Dewey), braved shouts of "Henpecked!" from the mob. Women and children held signs: MORE BALLOTS, LESS BULLETS and WE WISH MA COULD VOTE.

Born in 1896, Mabel Ping-Hua Lee had spent her early years in China attending a missionary school before she and her mother came to New York to join her father. The family lived at 53 Bayard Street in the heart of Chinatown, where her father, Lee To, a Baptist minister, was pastor of the Morning Star Mission on Doyers Street and a prominent neighborhood figure. Since he was a missionary, he and his wife and daughter were exempt from the Chinese Exclusion Act of 1882, which barred Chinese laborers from immigrating to the United States. Still, the Lee family, like other Chinese people permitted to enter the US, could not, by law, become citizens.

Without citizenship, Lee, even had she been old enough, would not have been able to vote. Her parents could not vote. But in China, where the 1911 revolution had ended the Qing dynasty and ushered in a new republic, women's rights were ascendant. Lee was loyal to two countries and called for women's empowerment in both. At sixteen, she rode toward a future of boundless promise.

While the suffragists marched in New York, Crystal Eastman 1904GSAS, Max Eastman's sister, was in Wisconsin, organizing for the National American Woman Suffrage Association (NAWSA), the country's largest suffrage organization. Formed in 1890 by Elizabeth Cady Stanton, Susan B. Anthony, and Lucy Stone through the merger of two rival organizations, NAWSA pushed for a federal constitutional amendment. That amendment, which read, "The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex," had first been introduced in 1878. But Congress had rejected it repeatedly, and so by the early twentieth century, NAWSA, under a new generation of leaders, abandoned the federal strategy and took the fight to the individual states.

In Wisconsin, where Eastman lived with her Milwaukee-born husband, Wallace "Bennie" Benedict, she faced bitter opposition. Aside from the usual arguments — that suffrage would destroy the order of the family, or that women were either too delicate or too virtuous for the muck and mire of politics — the state's powerful brewing industry was dead set against granting the temperance-minded sex a say-so at the ballot box. But Eastman was formidable: standing six feet tall, she was a lawyer, activist, and social reformer known for her landmark 1907–08 study of workplace injuries in Pittsburgh, which led to the nation's first workers' compensation laws. To many vested interests, she was terrifying.

Like Mabel Lee, Eastman was the daughter of clergy: her father, Samuel, was a Congregational minister, and in 1892 her mother, Annis, had been named co-pastor of the abolitionist Thomas Beecher's church in Elmira, New York, making her one of America's first female Congregational ministers.

"Annis Eastman was an enormous influence on her daughter," says Amy Aronson '96GSAS, author of *Crystal Eastman: A Revolutionary Life*. "Crystal blurred her own story and achievements into those of her mother and always tried to live up to the ideal of her mother in practice and in principle." She was also close with Max, her younger brother and intellectual ally (in 1918 they started the socialist magazine the *Liberator* together). It was a feminist, progressive family, with Annis at its spiritual head, and growing up in a collective on Seneca Lake, New York, Eastman had learned an unconventional style of homemaking. "Crystal argued for the sharing of housework and childcare

PREVIOUS PAGE: LEE: NATIONAL ARCHIVES NYC; NY SUFFRAGISTS: NEW YORK PUBLIC LIBRARY / SCIENCE SOURCE; OTHER: LIBRARY OF CONGRESS

Alice Paul sews a suffrage banner with stars representing the states that ratified the Nineteenth Amendment in 1920. Crystal Eastman stands behind her.

her entire life," says Aronson. "While her peers focused on wage work outside the home as the sine qua non of female independence, Crystal insisted that a career also had to be balanced by real feminist changes inside the household, inside the marriage, and inside the family for women to be truly free."

At Columbia, Eastman had earned her MA in the new field of sociology, studying with the economic theorist John Bates Clark, cofounder of the American Economic Association, and Franklin Henry Giddings, who introduced statistical analysis to American sociology. "Both professors were important in shaping her — Clark in forming her socialistic critique of society and Giddings in the statistical methodology that she applied to the Pittsburgh Survey," says Aronson.

Having gotten her master's, Eastman entered the NYU School of Law, but despite finishing second in her class in 1907, she could not get a job as a lawyer. In 1911 she moved with Bennie to Wisconsin, which was the only state east of the Mississippi with a pending suffrage referendum. There she worked for the Political Equality League, with NAWSA paying half her salary. The stakes were high, and Eastman worked hard to muster votes. She cultivated ties with European feminists and even got Emmeline Pankhurst, matriarch of the British "suffragettes," as they called themselves, to travel to a state that "had a hard time getting headliners," Aronson says. But unexpected resistance from Scandinavian-American voters ("I sometimes think the last thing a man becomes progressive about is the activities of his own wife," Eastman later quipped) and dirty tricks from the beer interests sank the effort.

Some NAWSA members had lost patience with the state-by-state grind. In New York, Alice Paul 1908SW and Lucy Burns (who had also studied at Columbia for a time) petitioned NAWSA to let them revive the campaign for a federal amendment. The two young Americans had met in a London police station in 1909 while studying abroad and apprenticing in Pankhurst's Women's Social and Political Union. Pankhurst and her daughters taught Paul and Burns the art of confrontational protest and civil disobedience: donning disguises to enter buildings, picketing Parliament and shouting down MPs, going on hunger strikes. Paul, who was jailed in London and Glasgow for nonviolent acts and was force-fed, gained an appreciation for the efficacy of spectacle and direct action.

NAWSA, which was staunchly nonpartisan, reluctantly agreed to allow Paul and Burns to lobby for a federal amendment as a semiautonomous group called the Congressional Union for Woman Suffrage, on the condition that they raise their own money.

Paul, the daughter of New Jersey Quakers, saw partisan politics as the logical means by which the party in power could be held to account. With Democrat Woodrow Wilson prevailing in the 1912 presidential election, she decided to organize a suffrage parade in Washington the day before Wilson's inauguration. Burns suggested they bring in her old Vassar classmate Crystal Eastman, the brilliant organizer and lawyer, to help. Eastman was game. The plan was to hold a huge procession down Pennsylvania Avenue.

The parade could not have gone worse — or better. There were five thousand marchers, twenty-four floats, and nine women's marching bands. The avenue

LIBRARY OF CONGRESS

teemed with men in bowler hats, many of them in town for the inauguration, and a number of them drunk. They broke through barricades and swarmed into the path of the parade. They spat at the marchers, heckled them, kicked them. With the police failing to control the crowd — and in some cases joining in the abuse — the parade was squeezed into a single-file fragmented line amid the sea of hats. The fiasco became a cause célèbre in the press and led to a hearing on police misconduct on Capitol Hill.

The attention was more than Paul could have hoped for, and donations rose. Even anti-suffragists, disgusted by the treatment of the women, gave money to the cause.

Crystal Eastman was not in Washington that day. She and Bennie had gone to Budapest for an international suffrage conference — and for what Eastman conceived as a second honeymoon in Europe, in hopes of saving her marriage.

When Mabel Lee arrived at Barnard in 1913, she was one of four Chinese students at the college. She joined the Chinese Students' Alliance, a national organization, mostly male, in which Columbia had the largest enrollment. "That was a point of pride at Columbia," says Cathleen D. Cahill, author of *Recasting the Vote: How Women of Color Transformed the Suffrage Movement*. Cahill reports that Lee studied history and philosophy, was active in the debate club, gave talks at the YWCA, and contributed to the alliance's journal, the *Chinese Students' Monthly*.

In the spring of 1914, Lee, at seventeen, published "The Meaning of Woman Suffrage," a precocious essay that emphasized equality in education and the economic liberation of women. Defining democracy as "equality of opportunity," Lee aimed to show that true feminism "is nothing more than the extension of democracy or social justice and equality of opportunities to women."

The Reverend Bayer Lee '90TC (no relation) is the pastor of the First Chinese Baptist Church in Chinatown — the church that Mabel Lee established in memory of her father. A congenial scholar of wide interests, Rev. Lee came to the church in 2004 and has been trying ever since to piece together the story of this intensely private woman who never fit the radical mold of Eastman or Paul. He notes that after the 1911 Chinese Revolution, she supported Yuan Shikai, a military leader of the overthrown Qing dynasty. "He essentially was advocating a restoration of the emperor," Rev. Lee says, "and became vilified by many who wanted China to enter into democracy and support Sun Yat-sen," the revolutionary hero of American progressives.

But if Mabel Lee felt that China needed a strongman to defend against the menace of foreign aggression, she was steadfast in her feminism, writing in her 1915 essay "China's Submerged Half" that China's future depended on "rendering tardy justice to its womankind," and that without the equality of women, "no nation can ever make real and lasting progress in civilization."

In her seminal historical analysis *The Ideas of the Woman Suffrage Movement, 1890–1920*, Aileen S. Kraditor '62GSAS identifies two chief arguments for suffrage: justice and expediency. The former, as espoused by Stanton and Anthony in the nineteenth century, appealed to the idea of natural rights and Jefferson's principle of the "consent

Mabel Vernon speaks to a Chicago crowd in June 1916.

CHICAGO HISTORY MUSEUM / GETTY IMAGES

of the governed." The latter evolved in an increasingly industrialized, urbanized society in which the need to protect workers and children and the food supply cried out for the electoral participation of women.

Crystal Eastman was an avatar of the anger many women felt at being excluded from basic decisions that affected every aspect of their lives. When "the dead bodies of girls are found piled up against locked doors leading to the exits," she wrote two weeks after the Triangle fire, "when we know that locking such doors is a prevailing custom in such factories, and one that has continued in New York City since those 146 lives were lost … who wants to hear about a great relief fund? What we want is to start a revolution."

When Eastman returned from Europe in the spring of 1913 to rejoin Paul and Burns, the Congressional Union for Woman Suffrage was strapped for cash. Eastman set up a meeting with Alva Belmont, a multimillionaire NAWSA supporter, and persuaded her to switch her allegiances. This was a game-changer: with Belmont onboard as a financier, Eastman in 1914 could travel out west to the suffrage states, rallying support for the federal amendment among enfranchised women — a battle-axe to wave at Congress. Says Aronson, "Crystal testified before the House Judiciary Committee and basically said, 'We have four million women voters, and they are with us, and you don't want to face them when you're up for reelection. Why turn us into enemies?'"

Eastman's efforts to save her marriage were less successful: she and Bennie divorced in 1916. By then, with war consuming Europe, she had founded two antiwar organizations: the Woman's Peace Party, which later became the Women's International League for Peace and Freedom, and the American Union Against Militarism, whose civil-liberties bureau would become the ACLU. And in 1916, she and Paul broke entirely from NAWSA and formed the National Woman's Party, whose militant spirit, inspired by the Pankhursts, was decidedly at variance with the tearoom rectitude of NAWSA.

The English suffragettes not only influenced the radical American suffragists; they also joined in their actions. In 1908, Bettina Borrmann Wells 1915GSAS, a Bavarian-born Englishwoman, came to New York to "stir people up," as she told the press. "Years of peaceful methods had accomplished nothing," she said, rationalizing the most extreme suffragette tactics — arson, vandalism — as the time-honored methods of male justice seekers everywhere. On soapboxes from Brooklyn to Harlem, Chicago to Detroit, Wells shouted to be heard over incensed passersby and vowed to "make life so uncomfortable for those who have it in their power to grant us our rights that they will enfranchise women as the lesser of two evils."

Crystal Eastman was an avatar of the anger many women felt at being excluded from basic decisions that affected every aspect of their lives.

In England, Wells had been pelted with fruit, eggs, live mice, and dead cats and had gone to jail for defying the authorities. "The government made a mistake when it sent us to prison," she said, observing that many men "were outraged by this treatment of women who were sincerely asking for what they felt to be their rights." She thought it important, too, to take the fight directly from the parlor to the public. "So long as woman suffrage was a subject for discussion at pink teas, men treated it lightly, but when they found that we were willing to defend our beliefs and fight for our rights as they had done for their liberty, they were compelled to believe that woman suffrage is a live issue."

Not that Wells took pleasure in militancy. "No one dislikes our methods more than we, because it is we who pay, but reason and logic have failed and the time for protest and rebellion has come."

Mabel Vernon 1923GSAS, secretary of the National Woman's Party, took a page from the suffragette playbook. Born in Wilmington, Delaware, in 1883, Vernon was a college classmate of Paul's at Swarthmore and was known as a masterful debater and organizer. Working with Paul and Eastman, Vernon traveled by train in the fall of 1915 to San Francisco, where suffragist orator Sara Bard Field had been dispatched to kick off an effort to gather signatures in cities and towns across America. Vernon did advance planning for Field's cross-country automobile trip, organizing parades and receptions all the way back to Washington, DC, where the women presented President Wilson with a petition of half a million names. If Wilson was impressed, he did not act, and at the State of the Union address on December 5, 1916, as Wilson spoke to Congress about extending political rights to the people of Puerto Rico, Vernon and some accomplices, seated in the gallery, unfurled a banner and draped it over the balcony. It read: MR. PRESIDENT, WHAT WILL YOU DO FOR WOMAN SUFFRAGE?

Wilson didn't budge, and by January 1917, the National Woman's Party began its most audacious campaign yet. Vernon was the point person, organizing what became known as the Silent Sentinels: women who took the unheard-of step of picketing in front of the White House with signs excoriating the US president. More incredibly, they maintained their vigil even as Wilson led the US into the Great War in April. NAWSA backed the war on the grounds that Wilson would owe them a debt of gratitude in the form of the vote, but

the Silent Sentinels continued to protest in wartime. Many women, including Vernon, were arrested, usually on bogus charges of impeding traffic.

"They were out there shaming Wilson for waging a war for democracy when the women of America were denied the democratic franchise," says Aronson. "This did not go over well with NAWSA. The National Woman's Party was playing hardball."

On October 20, 1917, in New York City, women held a parade in support of a suffrage amendment to the state constitution. Mabel Lee, now studying at Teachers College, led the parade's Chinese-American contingent. On November 6, the men of New York went to the polls to vote yet again on an amendment that had been repeatedly defeated. But this time it passed, and New York — the most populous state in the union, with the most electoral votes — became the first eastern state to legalize the vote for women. Now the momentum for a federal amendment was unstoppable.

Mabel Lee, of course, could still not vote, but she was determined to open doors. At Columbia she met students who would become political and economic leaders in the new Chinese republic. One of her closest friends was Hu Shih 1917GSAS, the star pupil of John Dewey and a towering intellectual and cultural reformer who became Chinese ambassador to the US.

When Lee completed her dissertation — a nearly five-hundred-page work titled *The Economic History of China: With Special Reference to Agriculture* — she became the first Chinese woman in the US to earn a PhD in economics.

"Her view was that voting was important to feminism, but it wasn't the only thing," says Cathleen D. Cahill. "She talked about women in business, in the professions, and how, despite being told they can't do those things, they were doing them anyway. I think she decided to get her PhD as a way of becoming one of those pioneers."

Historians trace the US women's suffrage movement to the evangelical-Protestant-driven abolitionist movement that began in the 1830s. "It was a coherent movement of African-American and white women and men who opposed slavery and supported political rights for white women and African-Americans," says Barnard history professor Premilla Nadasen '99GSAS. The sexism experienced by female abolitionists — they were prevented from speaking, asked to sit in the back of the room, or barred from meetings altogether — led them, says Nadasen, "to think about their own political rights as women."

"The women's suffrage fight ... was a product of long political struggle by people of all races and genders. In that regard it was an enormous victory."

At the 1848 Seneca Falls Convention, organized by Elizabeth Cady Stanton and Lucretia Mott and held in a church in the village of Seneca Falls, New York, attendees signed a "Declaration of Sentiments" that borrowed the text of the Declaration of Independence, adding "and women" to the self-evident truth that "all men are created equal," and called out man's deprivation of woman's "inalienable right to the elective franchise," which has subjected her to a state of "absolute tyranny."

"The real struggle came after the Civil War," says Nadasen, "when there were discussions about suffrage and the Fifteenth Amendment," which outlawed the denial of voting rights to men on account of race. "This was occurring at a moment of horrific racial violence against African-Americans: the emergence of the KKK, lynchings, and laws that allowed the authorities to arrest people for refusing to sign unjust labor contracts — essentially a way to re-impose slavery," says Nadasen. It was in this context that some suffragists accepted the enfranchisement of Black men before women.

But many did not. Stanton and Anthony resented that their rights should be subordinate to those they considered their inferiors (along with uneducated white men and uneducated immigrants). Later, as the federal amendment gained momentum, leaders like Paul and NAWSA president Carrie Chapman Catt "made a strategic political decision to cater to the prejudices of white Southerners, arguing that women's suffrage would strengthen white supremacy," says Nadasen. At the 1913 Washington march, they asked journalist and NAACP cofounder Ida B. Wells to walk at the back with other Black marchers instead of with the Illinois delegation. Wells defied the request.

The road was long and full of hazards and missteps, but on June 4, 1919, after decades of battle, Congress passed the Nineteenth Amendment. On August 18, 1920, by the narrowest of margins, the states ratified it. But the victory came with giant asterisks: Native Americans wouldn't become citizens until 1924 (some states prevented people on reservations from voting through the late 1950s), the Chinese Exclusion Act wouldn't be repealed until 1943, and, as Nadasen notes, even the passage of the Voting Rights Act of 1965 wouldn't truly mark the end of voter suppression in the South.

Still, says Nadasen, the women's suffrage fight holds great lessons in how social change is achieved. "The Nineteenth Amendment grew out of generations of women's and men's activism," says Nadasen. "Men like Frederick Douglass and William Lloyd Garrison, white women like Stanton and Paul, Black women like Ida B. Wells and Mary Church

Terrell. It was a product of long political struggle by people of all races and genders. In that regard it was an enormous victory, because it showed the ways in which political activism can create changes leading to a more democratic society."

For Crystal Eastman, the Nineteenth Amendment marked not an end but a beginning. In December 1920, she published an essay called "Now We Can Begin" in the *Liberator*. "In fighting for the right to vote most women have tried to be either non-committal or thoroughly respectable on every other subject," she wrote. "Now they can say what they are really after; and what they are after, in common with all the rest of the struggling world, is freedom."

Eastman, who remarried and had two children, died of kidney failure in 1928 at age forty-seven. Five years before her death, she and Alice Paul coauthored another constitutional amendment, calling for the legal guarantee of gender equality. Paul, who died in 1977, saw the amendment approved by the US Senate in 1972, though it wasn't ratified by the 1982 deadline by the required thirty-eight states. The subject of much argument for almost a hundred years, the Equal Rights Amendment, as it is known, is still being debated in legislatures today.

After women's suffrage was won, Mabel Lee led a small church in Chinatown.

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After getting her PhD, Lee traveled back to China with thoughts of becoming a leader in the young republic. But since she had opposed Sun Yat-sen, she was, according to Rev. Lee, on the wrong side of the political fence when Sun came to power in 1923. Her destiny was further complicated a year later when her father, while mediating a meeting between rival Chinese gangs at a restaurant on Mott Street, suffered a stroke and died. Lee was appointed director of her father's mission.

With funds raised from the Chinese community, Lee, together with the national and city Baptist mission societies, purchased a building in 1926 at 21 Pell Street, a block from where Lee grew up, as a mission in Lee To's honor. But Lee, who once wrote that "filial piety is the starting point of Chinese patriotism," wanted to break away from the American Baptists and establish an autonomous Chinese church.

"Did you really mean it to be merely a small Baptist Church in China Town?" Hu Shih wrote to her in 1936. "Or did you once imagine it to be the beginning of a Hull House of a Chinese Jane Addams? Or a Henry Street Settlement of a Chinese Lillian Wald? Frankly speaking, it is strange that you should spend your life on a thing that is merely a Baptist church in China Town."

But that's what Lee did. In 1954 she finally won independence for the little church, which she led until her death in 1966. Never ordained, she believed, as she wrote, that "Christianity is the salvation of China, and the salvation of the whole world." Never married, she expressed her feminism primarily through financial self-sufficiency. She made a small fortune in real estate and worked as a consultant to the Rockefellers. In photographs, she is often among men — students, businessmen, Chinatown VIPs — and is invariably the central figure: an elegant woman in a mink coat, her Rolls-Royce parked on the street.

Rev. Lee isn't sure if Mabel Lee ever became a US citizen and got the chance to vote. But this election year, women and men in Chinatown will fill out their mail-in ballots and take them to the post office on Doyers Street, just around the corner from the First Chinese Baptist Church. Two years ago, that postal building was officially rededicated. It is now the Mabel Lee Memorial Post Office.

COVID-19: WHAT HAPPENS NEXT

Scientists and clinicians from across the University pivoted this year to address the worst pandemic in a century. Here are just a few ways they are working to develop new treatments, diagnostics, and prevention methods.

By David J. Craig

Illustrations by Ellen Weinstein

AIDS researchers design lab-grown antibodies to both treat and prevent coronavirus infection

TODAY, AS DOZENS OF SCIENTIFIC GROUPS around the world race to create vaccines for COVID-19, some researchers are quietly pursuing a complementary strategy: developing medicines called monoclonal antibodies. Experts say these drugs, which are laboratory-grown, genetically supercharged versions of immune cells that the body produces to fight the novel coronavirus, could have a dual benefit, providing an effective treatment to those who already have the disease while giving healthy people immunity against COVID-19 for up to six months. This temporary immunity would help serve as an emergency stopgap until vaccines become widely available.

At the forefront of the effort to develop monoclonal antibodies is a group of scientists led by David D. Ho '00HON, the director of Columbia's Aaron Diamond AIDS Research Center and the Clyde and Helen Wu Professor of Medicine. Since last spring, when Ho reorganized his twenty-five-member team to focus on COVID-19, he and his colleagues have been working around the clock on the project, analyzing blood plasma donated by COVID-19 patients at Columbia University Irving Medical Center to identify naturally occurring antibodies that might be useful in developing therapies. (The term "monoclonal" denotes that the antibodies are mass-produced from the same parent cell and are therefore identical.)

"A patient will typically generate hundreds of antibodies against a particular virus, and what we've been doing is assessing which are the most effective at binding to the novel coronavirus and therefore preventing it from invading healthy cells," says Ho, whose team has previously developed monoclonal antibodies used to treat HIV/AIDS. "We then genetically tweak them to make them even more potent."

Ho says the antibodies, if manufactured as drugs and administered to COVID-19 patients at the first sign of infection, could dramatically reduce the severity of the illness. "The body can take up to two weeks to generate its own antibodies against a virus, so we'd be bolstering its defenses in that initial two-week period," he says.

Given to healthy people, Ho says, monoclonal antibodies could prevent infection altogether, as the antibodies would swarm and mark for destruction any COVID-19 viral particles the instant they appeared in the body, before they took root and began to replicate. In this way, monoclonal antibodies would act like a vaccine, but with a key difference: whereas a vaccine provides long-term immunity by teaching the body to recognize and respond to an invader on its own, monoclonal antibodies are merely hired hands whose protective effects will fade as they gradually wear out and disappear from the bloodstream.

A key benefit of monoclonal antibodies, though, is that they are easier and faster to develop than vaccines. And for this reason, proponents of the drugs believe that monoclonal antibodies for COVID-19 are likely to be made available before vaccines are approved and distributed to everybody who needs them.

The Columbia scientists recently took a big step toward achieving that goal, describing in the journal *Nature* the chemical structures of dozens of powerful COVID-19 antibodies that they have used to successfully prevent the disease in hamsters. These antibodies, the scientists say, are among the most potent coronavirus-fighting immune cells yet identified, and also among the most diverse, with some targeting the novel coronavirus in previously unobserved ways. Ho and his colleagues are now planning further studies in people and collaborating with pharmaceutical companies to turn the antibodies into drugs.

In addition to having widespread applicability as a treatment, Ho says, the drugs would provide a desperately needed prophylactic for the elderly, people with underlying health issues, and health-care workers.

"And it's likely that the antibodies will be useful even after vaccines are available, because vaccines often don't work well for the elderly," Ho says.

The Columbia scientists are also hoping to develop antibody drugs that could be made cheaply available in the developing world. "We believe that we may be able to make certain monoclonal antibodies effective at unusually low doses, which could make them more affordable and enable nonprofits to distribute them widely in poor countries, where people are usually the last ones to receive new medicines," Ho says.

DATA REVEAL FATAL CONSEQUENCES OF DELAYED RESPONSE

One the world's leading groups at forecasting the spread of infectious diseases, led by Jeffrey Shaman '03GSAS at the Mailman School of Public Health, has been looking back at COVID-19 case numbers to assess the impact of public-policy decisions made in response to the pandemic. In one recent paper, the researchers showed that if social-distancing measures had been imposed just one week earlier in the United States — beginning March 8 instead of March 15 — at least seven hundred thousand COVID-19 cases and thirty-six thousand deaths nationwide would have been avoided. "A small amount of time can make a big, big difference," says Shaman, whose analysis is based on computer modeling. "Catching an outbreak in its initial growth phase is incredibly important in reducing the numbers of deaths."

Newer, safer UV lamps could spell lights out for coronavirus

AS RESTAURANTS, SHOPS, AND OTHER SMALL BUSINESSES look for ways to curtail the spread of COVID-19, a promising new prevention strategy — the use of continuous low doses of ultraviolet (UV) light to kill microbes — has emerged from Columbia's Center for Radiological Research.

"This is a safe solution that can eradicate airborne viruses minutes after they've been breathed, coughed, or sneezed into the air," says David J. Brenner, a professor of radiation biophysics and director of the center.

Scientists have long known that UV light has the capacity to destroy viruses, bacteria, and other microbes. In fact, germicidal UV lamps have been used for decades to sterilize surgical theaters, research labs, ventilation ducts, and food-processing plants. During the pandemic, New York City has used the technology to clean its subway trains, blasting the interiors of the cars with UV beams. But to do this they must shut the transit system down, since conventional germicidal UV lamps can damage the skin and eyes and can only be used in unoccupied areas.

Now Brenner and his colleagues say they have improved the existing technology by developing a UV lighting system that can kill microbes without penetrating human cells — thus making it suitable for use in crowded public spaces. (Their system uses far-UVC light, which is further down the UV spectrum and has shorter wavelengths.) "If you're indoors with lots of other people, you really want that environment to be continually sterilized," he says.

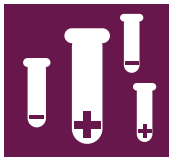
After nearly eight years of research and multiple long-term studies, Brenner says his team has confirmed the technique's safety and demonstrated that it can wipe out a wide variety of pathogens, including the viruses that cause influenza and measles, drug-resistant bacteria, and several coronaviruses that are responsible for common colds. The researchers are now testing the technology on SARS-CoV-2 — the coronavirus that causes COVID-19 — in collaboration with Mailman School virologists W. Ian Lipkin and Thomas Briese.

"Our results so far are very encouraging," says Brenner, noting that far-UVC light appears to be just as effective against SARS-CoV-2 as it is against other microbes. He also suggests that far-UVC lamps could be retrofitted into existing light fixtures to help control future pandemics as well as COVID-19.

Several companies, including the Florida-based Healthe and Japan's Ushio, have already begun manufacturing germicidal lamps based on the Columbia team's technology, in anticipation of the ongoing experiments with SARS-CoV-2 proving successful.

"Far-UVC light could be used in combination with other preventive measures, like wearing face masks and social distancing, to limit the transmission of SARS-CoV-2 and other viruses in hospitals, nursing homes, buses, planes, trains, schools, restaurants, offices, theaters, gyms, and anywhere else that people gather indoors," Brenner says. "It could greatly reduce the level of airborne virus in these environments."

Fertility researchers create faster, cheaper test



SCIENTISTS AT THE COLUMBIA UNIVERSITY FERTILITY CENTER have repurposed an RNA test that they had previously developed to spot genetic abnormalities in embryos to detect coronavirus in saliva samples. The researchers say their new COVID-19 test is faster, cheaper, and easier to use than existing diagnostics and could improve access to testing throughout the country.

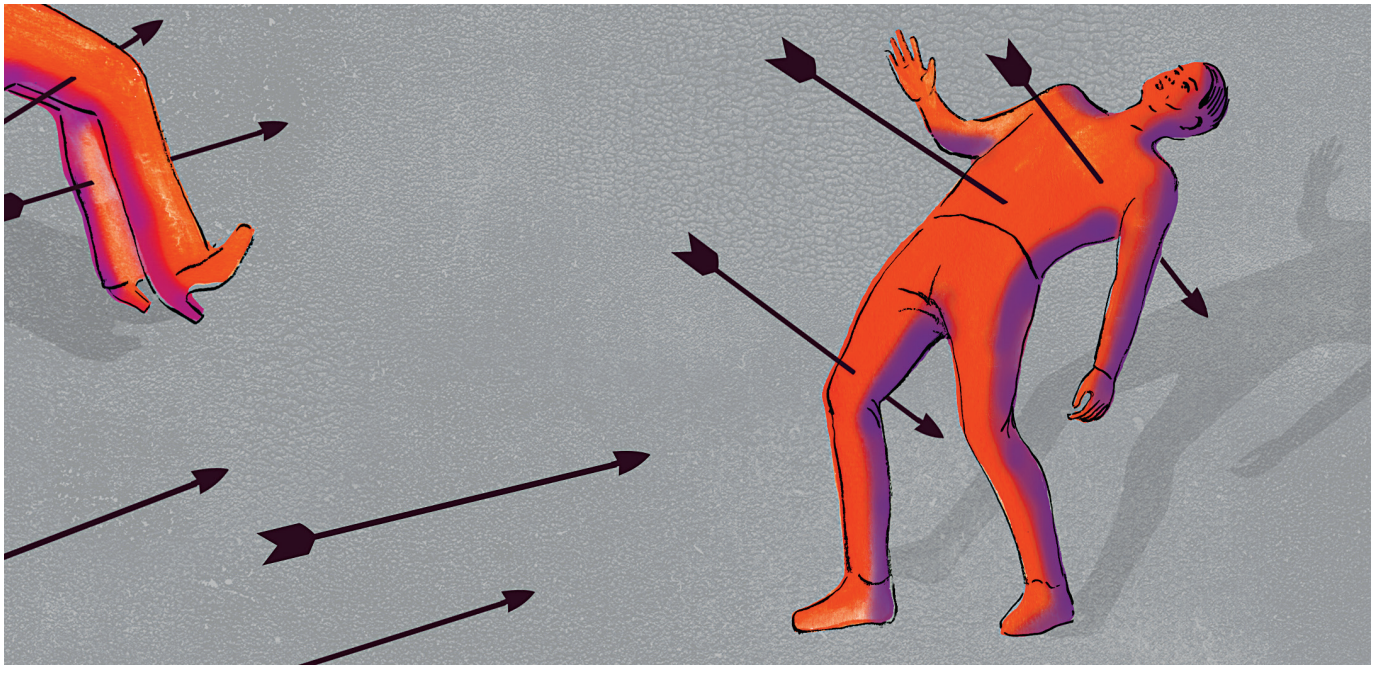
"Our test will generate results in about thirty minutes, whereas others can take several days," says Zev Williams, director of the center and chief of reproductive endocrinology at Columbia University Irving Medical Center. "And it doesn't require an uncomfortable swab up your nose — all you do is spit in a cup."

The Columbia team's key innovation, Williams says, has been to streamline the process by which genetic samples are analyzed. Usually COVID-19 tests require samples to be run through expensive equipment that is only available in large laboratories — thereby requiring most health clinics to send out their samples for analysis. The Columbia test, he says, enables medical workers to process the samples and interpret the results onsite. They simply place a patient's saliva in a plastic tube filled with reactive enzymes and then submerge the tube in warm water. If the tube turns yellow, the test result is positive; if it turns red, it is negative.

"To combat this virus, we need to test widely and frequently and get the results back quickly," says Williams. "This requires a paradigm shift in how we go about testing for it."

In late July, the biopharmaceutical company Sorrento Therapeutics announced its intention to bring the new Columbia test to market; the company's scientists are now working with Williams's team to validate its accuracy. They hope to soon pursue "rapid, full-scale production" in the US.

"Once we obtain regulatory approval, we envision the test being used to screen people before they board an airplane, visit a nursing home, or go to school or summer camp," Williams says. "The test could also be a more affordable option for health-care facilities in developing countries where outbreaks have overwhelmed their testing and logistical capabilities."



Study reveals the mysteries of a complex and shape-shifting disease

FROM THE START OF THE PANDEMIC, doctors and nurses have been confounded by the coronavirus's ability to migrate outside the respiratory tract and invade other parts of the body, including the heart, liver, kidneys, stomach, skin, and nervous system.

Now, in an effort to help other medical workers anticipate COVID-19's mercurial moves and treat it more effectively, a team of Columbia physicians has published the first comprehensive review of the disease's physiological effects, describing how and when it may attack different organ systems. The study, which appears in the journal *Nature Medicine*, was spearheaded by Aakriti Gupta '19PH, a Columbia cardiology fellow who was among a large number of doctors temporarily deployed to Columbia University Irving Medical Center's special COVID-19 intensive care unit when the pandemic hit New York City in early March.

"I was on the front lines right from the beginning, and I observed that patients were clotting a lot, they had high blood sugar even if they didn't have diabetes, and many were experiencing injury to their hearts and kidneys," Gupta says. "It seemed like every day my colleagues and I were observing some new symptoms."

Over the next few weeks, Gupta and Donald Landry '83PS, the chair of medicine at Columbia's Vagelos College of Physicians and Surgeons, brought together nearly thirty physicians from Columbia, Harvard, Yale, and several other institutions to collect and review information about the multiple manifestations of COVID-19. Their study, which draws on reports from hundreds of medical teams around the world as well as their own clinical observations, provides a detailed portrait of a stunningly complex disease.

According to the paper, the coronavirus's shape-shifting nature is explained in part by its compatibility with a protein receptor — a kind of molecular portal into cells — called ACE2, which is present in most organs. Possessing the biological equivalent of a master key, the coronavirus can enter, genetically commandeer, and ultimately destroy cells throughout the body; its invasion of the kidneys, for example, is likely responsible for high rates of renal failure among COVID-19 patients, while its incursion into the circulatory system contributes to the formation of blood clots that cause heart attacks, strokes, and myriad other problems.

But the virus's direct assault on the body is only part of the story. The researchers say that some of the disease's worst effects appear to be caused by an overzealous immune response. That is, the body's natural defense system, in its determination to purge infected organs of diseased cells, may flood the organs with too many white blood cells, which are the body's foot soldiers against microbial invaders. This can end up inadvertently damaging healthy tissue.

Knowing all the ways that the disease is likely to attack and determining the best treatments in each case requires an extraordinary amount of scientific and clinical knowledge, the Columbia researchers say.

"This virus is unusual, and it's hard not to be impressed by how many manifestations it has," says Mahesh Madhavan '14PS, a CUIMC cardiology fellow who contributed to the paper. "We hope that our review, observations, and recommendations can help other clinicians in places where cases are now surging."

New insights on animal vectors

THREE TIMES NOW THIS CENTURY — with SARS, MERS, and COVID-19 — a bat coronavirus has jumped into humans and caused a pandemic. How concerned should we be about this happening again?

Simon Anthony, a Columbia epidemiologist, recently mapped the evolutionary histories of SARS-CoV-1 and SARS-CoV-2 — the coronaviruses behind SARS and COVID-19 — to learn how and when they acquired the ability to infect humans and to understand the environmental factors that may give rise to such instances of "zoonotic spillover." He found evidence that SARS-CoV-2 is part of a long lineage of bat coronaviruses that have for decades possessed the ability to infect humans and have periodically imparted this power to other coronaviruses, including an ancestor of SARS-CoV-1, by swapping DNA with them. Such instances of genetic recombination between viruses frequently occur in the bellies of bats, which are infamous for harboring large numbers of pathogens.

Anthony says that his team's research underscores the need for better surveillance of viruses in wildlife, especially in Southeast Asia and east-central Africa, where coronaviruses of the lineage that includes SARS-CoV-2 are known to circulate. "We need more detailed information about these coronaviruses and the hosts and locations in which they're found," he says. "This will help us evaluate the risk they pose to humans."

Columbia doc flips protocol and finds a solution to a critical-care crisis

IN HER TWO DECADES as a critical-care doctor, Sanja Jelic had never confronted a situation as serious as the one that unfolded at Columbia University Irving Medical Center on April 6, at the height of the coronavirus pandemic in New York City. On that day, eight patients under her care went into acute respiratory distress at once. Struggling to breathe even with the help of oxygen masks, all of them needed to be intubated and hooked up to ventilators. The problem was that CUIMC's staff could only intubate a few people at a time, which created a bottleneck.

"I had never seen so much strain on our ICU resources," says Jelic, an associate professor of medicine. "We had to do something to buy time."

So Jelic improvised, asking a few of her patients to roll onto their stomachs and lie face-down. This clinical maneuver, called proning, is often used with pulmonary patients who have already been connected to ventilators and sedated, since it has been shown to help an unconscious person's lungs absorb oxygen. Physicians had rarely attempted it with conscious patients, though, deeming it of little benefit. And yet Jelic and her staff, within an hour of helping several patients turn onto their bellies, were shocked to find that they improved so dramatically that they no longer needed ventilators at all.

"It was a wonderful outcome, not only because we conserved resources but because we spared these patients from being intubated, which is not without its risks," Jelic says.

Jelic's discovery — which she and colleagues subsequently replicated in a small study of eighty-eight patients published in the journal *JAMA Internal Medicine* — has since inspired caregivers across the country to experiment with the practice. In many states now experiencing spikes in COVID-19 cases, proning has emerged as a cheap and easy way for health workers to help critically ill patients.

"It's not always an adequate replacement for ventilation," Jelic says. "But as a stopgap measure where resources are stretched thin, it is worth trying and can certainly help."

And while larger clinical trials are still needed to determine the specific circumstances in which proning may or may not benefit COVID-19 patients, Jelic says she has no doubt that her team's unorthodox methods improved care, and possibly saved lives, at CUIMC.

"When you're practicing medicine in extreme conditions, sometimes you need to think creatively to give your patients a fighting chance," she says. "If you're inundated with critically ill people, you can't throw up your hands. You have to find another way."

GLOBAL PROJECT TO ADDRESS MEDICAL WORKERS' MENTAL-HEALTH ISSUES

Working long hours under constant threat of infection, medical workers around the globe are facing tremendous risks, not only to their physical well-being but to their mental health. In the wake of COVID-19, many report feeling burnout, anxiety, and depression.

To ensure that they get the support services they need, researchers at Columbia's Mailman School of Public Health, together with colleagues in Chile, have launched a major study of the pandemic's mental-health impacts on medical workers in more than thirty countries. Over the next year, the researchers, led by Ezra Susser '74CC, '82PS, '93PH, a Columbia professor of epidemiology and psychiatry; Franco Mascayano, an epidemiology doctoral student; and Rubén Alvarado, a psychiatrist at the University of Chile, will track the mental health of thousands of doctors, nurses, and medical support staff in Argentina, Chile, Germany, Ghana, Guatemala, Italy, Japan, Nigeria, Saudi Arabia, Tunisia, Turkey, and other nations.

"We want to understand who is most vulnerable," says Susser, who is also conducting a similar study on health-care workers in New York City. "This research will yield data of immediate utility to health systems and governments on questions such as how to prioritize mental-health treatment and other support services."

How COVID-19 could reveal the secrets of chronic fatigue syndrome

PHYSICIANS HAVE SEEN IT BEFORE: in the aftermath of a viral epidemic, survivors complain of a crushing lethargy, mental fogginess, sleep difficulty, and muscle pain. Many are eventually diagnosed with myalgic encephalomyelitis, also called chronic fatigue syndrome (ME/CFS), a poorly understood condition that has no FDA-approved treatment and that often leaves people debilitated for life. It has happened after outbreaks of SARS, MERS, West Nile fever, Epstein-Barr viral infections, and Ebola. And now, experts fear, it could happen again on a much larger scale with COVID-19.

"Many people who've had COVID-19 and recovered from their respiratory symptoms are now experiencing health problems that we often see in the early stages of ME/CFS," says Mady Hornig, a Columbia immunologist and an expert on the neurological disease.

While it is too early to know how many COVID-19 patients may develop ME/CFS, past studies indicate that 10 percent or more of people who become seriously ill as a result of a viral infection may subsequently be diagnosed with the condition. If those numbers hold for COVID-19, Hornig says, millions of people worldwide could be at risk.

"We could be looking at an unprecedented wave of ME/CFS over the next few years, with profound societal costs," says Hornig, adding that an estimated three million Americans already suffer from the disorder.

And yet with this crisis comes an opportunity: Hornig and other ME/CFS experts see the pandemic as their best chance to date to investigate the physiological roots of the disease and develop treatments. ME/CFS, which usually occurs when a viral, bacterial, or fungal infection causes lasting damage to the immune, nervous, and metabolic systems, is often diagnosed years after the original infection, limiting researchers' ability to piece together how it develops and evolves. But now that a viral infection suspected of triggering ME/CFS is spreading so aggressively, scientists say they have an opportunity to conduct larger, more statistically powerful studies.

"This could help us determine exactly what is different about people who fully recover from an infection like COVID-19 and those who suffer lingering problems," says Hornig, who is an associate professor of epidemiology at the Mailman School of Public Health.

Hornig is now undertaking several studies that aim to identify risk factors for ME/CFS among COVID-19 patients and to lay the groundwork for new prevention and treatment strategies. In collaboration with scientists at the LA-based research and advocacy organization Solve ME, for example, she is planning to follow large numbers of people who have recovered from COVID-19 to find out how many develop the syndrome and, hopefully, why.

"One of the interesting things we've seen so far is that some COVID-19 patients who initially seem to be on the path to developing ME/CFS actually start to feel better after four or five months," she says. "We think that looking closely at these people and comparing them to others who eventually do get diagnosed with ME/CFS could yield valuable insights. Might there be something distinct about their immune systems that makes them more resilient? That could be the kind of discovery that opens up new possibilities for treatment."

COLUMBIA

FIT CLUB

These streaming services from alumni entrepreneurs are helping people stay active and sane in 2020

BY JULIA JOY

Physique 57 teachers lead a dance-cardio class.

PHYSIQUE 57

Physique 57 has been sharing the secrets to beach-ready buns, abs, arms, and thighs since the company opened its first boutique studio on 57th Street in Manhattan. The international brand, which launched in 2006, is known for its signature style of barre — an aerobic fitness method that combines elements of dance, strength, cardio, and flexibility.

"We use a proprietary system called Interval Overload, which works each muscle group to exhaustion in eight to ten minutes," explains cofounder and CEO Jennifer Vaughan Maanavi '00BUS, a former Wall Street professional with a background in dance. "You burn calories and tone the body very quickly."

Physique 57 has studios in New York City and franchises in the United States and overseas. Since 2012 the company has also offered online classes. Subscribers to its platform gain access to hundreds of workouts, including ab blasts, dance-cardio sessions, and restorative stretches, often with no equipment necessary.

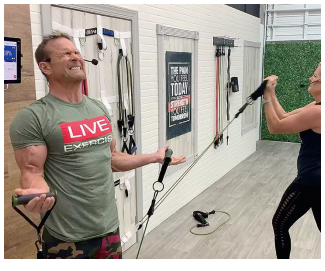
Jennifer Vaughan Maanavi

Looking ahead to when the world recovers from COVID-19, Maanavi sees the fitness industry continuing to invest in online instruction even as it revives in-person workouts. That's a good thing, she says — a combination of in-person and on-demand classes allows for more scheduling flexibility and, importantly, more opportunities for exercise. "A lot of people strive to work out at least three or four times a week, but going to the gym or a studio can be time-consuming," says Maanavi. "With twenty-minute videos available online, there are fewer excuses. I'm a firm believer that your fitness routine powers your self-image and emotional stability. It's not all about biceps and triceps; it's your whole outlook. So my hope for the world is that people exercise more, wherever they are."

Where to stream:
ondemand.physique57.com, Android, iOS, Amazon Fire TV, Android TV, Apple TV, Instagram TV, Roku

Monthly cost:
$24.99

Blake Kassel



A LIVEexercise strength workout uses Bodylastics resistance bands.

LIVEEXERCISE

Based in the fitness hub of South Florida, LIVEexercise is dedicated to helping sweat junkies around the world shape up from their homes. "We were one of the first companies to do live online workouts and then have those workouts available for on-demand replay," says Blake Kassel '93GSAPP, the company's founder and CEO.

Kassel, a former competitive bodybuilder who studied real-estate development at Columbia, began making online exercise videos in 2009 to accompany the resistance bands he sold under the brand name Bodylastics.

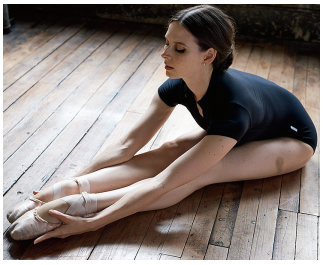
The first series, called "Chiseled," a set of classes that Kassel still leads from his Boca Raton studio, is a strenuous muscle-building program that, as he puts it, "will smoke you in thirty-five minutes." Since "Chiseled" premiered, Kassel's streaming platform — now under the name LIVEexercise — has expanded to include more than 6,300 workouts focused on resistance training, weight training, cardio, kickboxing, yoga, and Pilates.

Exercises are filmed by a professional videographer in a handheld, documentary style to "bring the viewer into the action," Kassel says. "We want to make people feel like they have a workout partner, so no one ever has to exercise alone," he explains. "It's like when I trained as a bodybuilder and had a partner for free weights. We would meet up at the gym, talk about stuff, work out hard, and have an incredible bonding experience. That's the effect we're trying to achieve here. We have an amazing community of people and an amazing platform."

Kassel's audience has grown over the past few months. "Previously, we mostly served busy people like moms and dads who didn't have time to go to the gym," he says. But as many fitness facilities have closed and coronavirus has made more people rethink their exercise routines, Kassel says he's struggled to keep his Bodylastics bands in stock. He acknowledges that people are wary of putting their hands on communal equipment next to panting strangers in crowded indoor spaces, and as a result, "we've never seen demand like this, ever."

Where to stream:
liveexercise.com, Android, iOS, Apple TV, Amazon Fire TV, Roku

Monthly cost:
$9.95



Stretching is key to a dancer body.

BALLET BEAUTIFUL

Founded by ballerina Mary Helen Bowers '08GS, Ballet Beautiful blends the elegance of classical dance with the muscle-toning workout of a body boot camp. With more than three hundred videos and thousands of subscribers, the streaming service was an early pioneer of online fitness classes when it first launched in 2009.

The company took off after Bowers, who was working as a personal trainer after having retired from a ten-year career at the New York City Ballet, received a life-changing opportunity. Natalie Portman was preparing to play a dancer in the upcoming movie *Black Swan*, and she needed a trainer who could help her sculpt a convincing ballerina body. Bowers got the job through a personal connection, and for the next year she accompanied the actress around the world to help her maintain an intense workout regimen.

It was during that time that Bowers turned to online teaching as a way to connect with her New York–based clients. Leading up to the December 2010 release of *Black Swan*, she began producing videos for a wider audience, and by 2013, her business, Ballet Beautiful, had introduced a subscription service. "By bringing workouts online, we were able to build a powerful global community in a very short time," says Bowers, who, in addition to training Portman, has also worked with celebrities such as Tracee Ellis Ross and Liv Tyler, as well as former Victoria's Secret models, including Doutzen Kroes and Miranda Kerr.

Bowers's ballet-inspired exercises, which require no previous dance experience, target the leg, core, hip, and arm muscles that are essential to the ballet physique. They emphasize posture, control, and graceful movement. "So much of dance is about elongation — stretching the limbs and extending the body through space," she says. "We help build the strength that lets you carry yourself in a way that communicates confidence and power."

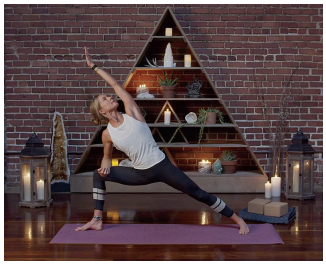
Since the start of the pandemic, Ballet Beautiful has created more content focused on relieving stress through physical activity. "A lot of people are looking at fitness in a different way now," says Bowers. "It's less about how you look or how you fit into your jeans and more about how exercise makes you feel happier and stronger. We're so fortunate to be in a position where we can offer something positive and healthy for people to do every day from home."

Where to stream:
balletbeautiful.com

Monthly cost:
$39.99

Mary Helen Bowers

Jeff Krasno, Schuyler Grant, and Sean Hoess



Schuyler Grant leads a yoga class.

PETE LONGWORTH

WANDERLUST

For those seeking relaxation and mindfulness in addition to full-body workouts, Wanderlust offers a variety of yoga classes, meditation sessions, and inspirational lectures through its online video library.

The Brooklyn-based company, which has yoga studios in California, Austin, and Montreal, is the brainchild of three Columbia alumni who met at the College: indie-music executive Sean Hoess '92CC, '97LAW, '98SIPA; his friend and longtime business partner Jeff Krasno '93CC, who leads the wellness-education startup Commune Media; and Krasno's wife, Schuyler Grant '93CC, a former television actress, renowned yoga teacher, and the founder of New York City's Kula Yoga Project.

The trio began Wanderlust in 2009 as a series of festivals celebrating conscious living and community. "Think of it as a cross between a music festival and a very large yoga retreat," explains Hoess, the CEO. Hosted in countries around the world, events have cumulatively drawn hundreds of thousands of attendees and have featured performers including Moby and Andrew Bird and notable speakers such as Marianne Williamson. But since COVID-19 forced the cancellation of festivals and the shuttering of yoga studios, the company has shifted focus to its streaming arm, Wanderlust TV, which launched in 2017 and tripled its subscribers this year.

Whether in person or online, Wanderlust offers what Hoess calls "conscious fitness." "We're here to help people live healthy and inspired lives," he says. "Yoga is not about toned abs or being 'fit,' though those are positive side effects. There's a mental component, and for many a spiritual component as well. Current scientific evidence supports that having a meditative practice makes for calmer and more tolerant humans."

A steady yoga practice can also help people take deep breaths and stay grounded as they navigate the uncertainties of our current era. "Our motto is 'Find your true north,'" explains Hoess. "We're all seeking our best selves. It isn't a destination; it's a journey. The name 'Wanderlust' refers to an innate desire to travel or roam. We mean that literally, since our events involve destination travel around the world, but also metaphorically — we are all exploring our own consciousness." Pandemic or not, there are no lockdowns or public-health risks when taking a vacation of the mind.

Where to stream:
tv.wanderlust.com, Android, iOS, Apple TV, Roku

Monthly cost:
$17.99

Chelsea Miller (center) at a Freedom March NYC protest this summer.

SERICHAI TRAIPOOM

TAKE IT TO THE STREETS

Chelsea Miller '18CC, cofounder of Freedom March NYC, is walking the walk of racial justice. Thousands are following her lead.

By Paul Hond

Portraits by Myles Loftin

Street photos by Serichai Traipoom

Standing on the edge of a fountain at Foley Square in Lower Manhattan against a backdrop of white-columned courthouses, Chelsea Miller '18CC lowered her face mask, lifted her megaphone, and raised her voice. It was July 4, 2020, and Miller was about to give her own take on the state of independence. "Today we know our history," she declared, addressing the diverse crowd of young people that had followed her through the streets from Madison Square Park, chanting and drumming. "Today we are reminded of a delayed promise by this America — a promise that says independence, freedom, and justice for all. But are we all free?"

"No!" boomed the response.

"*Are we all free?*"

"*No!*"

"Today," said Miller, "we do the work of making sure that our voices are heard."

Dressed in black bike shorts, a black T-shirt, and a white bucket hat, her right fist raised in power and solidarity, Miller was fired up. Michael Brown, Eric Garner, Tamir Rice, Philando Castile, Tony McDade, Sandra Bland, Atatiana Jefferson, Breonna Taylor … Miller could say all their names. A social-impact entrepreneur and public speaker who grew up in Flatbush and East New York, she was already well acquainted with the many manifestations of systemic racism. But it was the outcry and protests over the police killing of George Floyd that put Miller, twenty-three, at the head of mass demonstrations virtually overnight.

The weekend after Floyd's death, Miller had joined a protest in Brooklyn with her younger sister, Nia White, and a few friends. The crowd that gathered in front of the police barricades outside the Barclays Center was met with pepper spray and batons, and more than two hundred people were arrested. "I saw total disorganization," Miller says. "A lot of the protesters were inexperienced. People started running, and if you know anything about the NYPD, if you start running it gives them a reason to say they're in pursuit of you and continue to charge. It was really disheartening, because it was clear that so many people had come out to have their voices heard."

The next morning, a Sunday, Miller got a call from her friend Nialah Edari '17BC, who had attended a protest in Manhattan. They discussed how some politicians were using incidents of vandalism to discredit the overwhelmingly peaceful majority of demonstrators. Then they searched social media for an organized protest that night. When they didn't find one, they decided to put together their own march, with a planned route and specific demands for police accountability. They had just a few hours to make it happen. "We felt that if we didn't amplify our voices as organizers, then the media would take control of the narrative," Miller says. "This movement is about Black lives and Black futures, but without a strategy the message falls on deaf ears."

And so at noon on May 31, which was the ninety-ninth anniversary of the Tulsa race massacre, Miller posted a notice on Instagram under the name "Freedom March NYC," announcing a protest that would start at 8:00 p.m. that night in Washington Square Park. She called on allies to spread the word, and a few hours later, when Miller, Edari, and co-organizers White and Fatimah Barrie arrived at the park, a small knot of protesters had already gathered. They began to chant, and the numbers quickly grew. People from other groups, including Black Lives Matter of Greater New York, showed up, and the crowd swelled to a few hundred. As an NYPD helicopter rumbled overhead, Miller and Edari led the marchers out of the park and into the streets, down to One Police Plaza, where they read their demands.

Over the following days, the two women would raise more than $50,000 for Freedom March NYC and organize more protests, including a Juneteenth march in Brooklyn and the July 4 march in cooperation with Unite NY and supported by Warriors in the Garden and Strategy for Black Lives. They would also commit to building their organization into a youth-led civil-rights group with a

"THIS MOVEMENT IS ABOUT BLACK LIVES AND BLACK FUTURES."

Marchers cross the Brooklyn Bridge.

SERICHAI TRAIPOOM

Chelsea Miller

MYLES LOFTIN

mission to train organizers nationwide in nonviolent mobilization.

"We are doing this for future generations," says Miller, "so that they do not have to say any more names."

The *New York Times* estimates that between fifteen and twenty-six million people participated in demonstrations in the weeks following the death of George Floyd, which makes the anti-racism protests of 2020 the largest social movement in US history. To explain it, experts point to a unique combination of factors: a pandemic that triggered mass unemployment and highlighted racial health disparities, a string of high-profile racially motivated incidents (including the shooting of Ahmaud Arbery in Georgia and the false 911 call placed by a white woman in Central Park against a Black birdwatcher), and what Thai Jones '02JRN, '12GSAS, curator for American history at Columbia's Rare Book and Manuscript Library, describes as "reactionary white-supremacist language coming from the highest levels of federal power."

For a generation plugged into social media, the nearly nine-minute video of Floyd's execution was a breaking point. "The burden on young people is beyond anything we can understand," says Jones, who studies radical social movements and teaches in the Columbia University and Slavery seminar, held each spring. "They are seeing their hopes and plans for their immediate and long-term futures being upended. The fact that, despite all this, they have hope for this transformational vision of a better society is what gives this movement so much power."

To watch Miller lead a protest is to witness the conversion of pain and rage into political power in its most fundamental form. With Edari and White marching beside her (at seventeen, White is the youngest organizer on the ground), bouncing on their sneakers to the catchy, melodic chants while dozens of photographers in front of them maneuver for position, Miller projects passion, confidence, and unyielding determination. That she should be at the front of these historic marches comes as no surprise to her Columbia peers. Akua Obeng-Akrofi '18CC calls Miller a "force" and a "visionary." The two women were first-year suitemates in Carman Hall and became friends the moment

Akua Obeng-Akrofi (center) and Miller (right) host a WEBelieve event.

"IT'S MIND-BOGGLING THAT IT TAKES GENERATIONS FOR US TO SAY, 'I SEE YOU. YOU'RE HUMAN.'"

they met. Miller was a Kluge Scholar (a program endowed by John Kluge '37CC, '88HON) and a Jackie Robinson Scholar (a program run by the Jackie Robinson Foundation, chaired by Gregg Gonsalves '89SEAS and Sharon Robinson '76NRS), and in the summer of 2015, she won a Presidential Global Fellowship to study political science in Istanbul and Tunis.

Obeng-Akrofi, too, was a dizzyingly high achiever. Born in Ghana and raised in Atlanta, she was recruited by the Ghanaian national track-and-field team and qualified for the 2016 Summer Olympics in Rio de Janeiro. A psychology major, she served as president of the Columbia chapter of the NAACP and in 2018 received the Campbell Award, established in honor of Columbia Alumni Association cofounder and Trustee chair emeritus Bill Campbell '62CC, '64TC, '15HON and presented to a graduating student from each school who shows outstanding leadership.

At Columbia, Miller and Obeng-Akrofi, though busy with their studies and extracurriculars, felt a need to do something more. One night in the spring of 2016, during their sophomore year, they had a talk. "There was a buildup of frustration with police brutality and a feeling of helplessness in the Black community," says Obeng-Akrofi. The past year had seen the police killings of Freddie Gray, Walter Scott, Samuel DuBose, Natasha McKenna, and Greg Gunn, and the women discussed what they could do to bring hope. Since they both had mentoring experience, they brainstormed about some key lessons that they'd want to teach young girls — "stuff we felt we'd have wanted to learn at that age," Obeng-Akrofi says. They came up with an idea for a nonprofit called Women Everywhere Believe (WEBelieve), which Miller describes as a "national leadership pipeline for women and girls of color."

That summer, with a grant from Vital Voices, a nonprofit that works with women leaders, they developed a curriculum, and in the fall they reached out to several New York City schools. "We told them, 'We'll bring all the supplies; you just provide the students,'" says Obeng-Akrofi. They heard back from a school in Harlem and did an eight-week pilot program there, with classes in goal-setting, STEM, Black women's history, and civic engagement.

The program was enthusiastically received, and Miller and Obeng-Akrofi decided to build it out: through videos and social-media posts they inspired women at other colleges to start chapters on their campuses. WEBelieve now has more than twenty chapters in eight states and one in India.

Meanwhile, the women lived their dreams. Obeng-Akrofi, a three-time champion Ivy League sprinter, went to the Rio Olympics with Team Ghana. And Miller became part of the last intern class of the Obama administration, working in Washington on criminal-justice reform.

"One day we went to the West Wing, and President Obama spoke to us about leadership and how the future is in our hands and the importance of us stepping up when we leave," says Miller. "Those words never left me."

Miller was also greatly influenced by two professors: sociologist Carla Shedd ("I'll swear by her forever," says Miller), whose 2015 book *Unequal City: Race, Schools, and Perceptions of Injustice*, a study of adolescents in Chicago's racially stratified school system, reflected Miller's own experience in Brooklyn; and law professor Kimberlé Crenshaw, whose African American Policy Forum started the Say Her Name movement to bring attention to Black women and girls killed by police. Crenshaw developed the concept of intersectionality, which describes how traits like race, gender, and class overlap to shape a person's identity and experience.

"The first time I heard the term 'intersectionality' it resonated so much with me as a Black person, as a Black woman, as a first-generation American, as the daughter of immigrants," Miller says. "I was finally able to put into words why I've been able to understand people's challenges without necessarily having experienced them. Having all these intersecting identities and experiences,

VICTORIA CAMPA '17BC

I don't need to be Native American or to be from the LGBTQ+ community to empathize with their stories. When someone says, 'I've been hurt, and this system has served to oppress me and silence my voice,' it's mind-boggling that it takes generations for us to say, 'I see you. You're human.'"

Obeng-Akrofi, who also recognizes the importance of stepping up to lead, credits her mother with instilling confidence in her at an early age. "My mom is a believer in the power of the tongue and speaking what she wanted into existence," she says. "From the beginning she would speak things into me — she would say she saw leadership in me and that I would go far. And I believed it." In watching "leadership play out with the women in my life," Obeng-Akrofi developed a credo: "If I have any resources and can elevate somebody who is next up, I'm going to do so. That's just a matter of 'each one, teach one' and being able to give what I have in order to see growth in our community." She counts Miller as one of those women whose leadership has left a mark. "Chelsea is very strong," she says. "She isn't shaken or moved by obstacles. She's an amazing leader in that she not only has a clear vision for what she does but also understands the role she plays in that vision and knows her place in it."

In the fall of 2015, Miller met Edari, then a Barnard junior. Edari was raised in Milwaukee in a family steeped in the fight for racial justice. She grew up hearing stories about her paternal grandfather, who was born in a segregated hospital in Jim Crow Mississippi, and her maternal great-grandfather, the son of Jewish immigrants from Belarus and a strong ally of the Black community in Madison. In 2014, after a grand jury in Ferguson, Missouri, failed to indict the police officer who killed Michael Brown, Edari assembled a group of students and organized a protest in Herald Square on Black Friday to disrupt the annual shopping frenzy. More than 150 people showed up, and it made the news.

Both Edari and Miller belonged to Lambda Chapter of Alpha Kappa Alpha, the first Black Greek sorority, founded in 1908. "That played a huge role in our activism during college and also solidified our relationship," says Miller. In February 2016, Miller invited Edari to speak at a WEBelieve event about her roles in the Barnard Organization of Soul Sisters (BOSS) and the Reverend Al Sharpton's National Action Network, for which she served as Midwest regional youth director. That same month, Edari, who was co-chair of Columbia University Black History Month, asked Miller to be on Edari's panel on empowering Black girls. Freedom March NYC has its roots in this bond of mutual respect and support.

"It's been a blessing to do this work with Chelsea," Edari says. "She's low-ego, and you can't do this work with a high ego. And although I have organizing experience, Chelsea brings other angles, such as business acumen and social-media skills."

And so the two women were well prepared to meet the moment in 2020. Unlike the civil-rights movement of the 1950s and 1960s, today's campaign is made up of myriad organizations and has no prominent figures or personalities, no icons or spokespeople — an arrangement that runs the risk of making the messaging less cohesive and effective. But activists like Miller and Edari, who place the overlooked, centuries-long struggles of Black women at the forefront of their work, are keeping the agenda focused. "Movements go up and go down," says political scientist Fredrick C. Harris, dean of social sciences at Columbia, "but the key part of sustaining a movement is what these young women are doing: they're organizing. There is a connection between protest politics and electoral politics, and so it's not just about protests — it's also about setting the political agenda, electing people, and holding them accountable when they get in office."

A week into the life of Freedom March NYC, Miller and Edari created a five-point policy platform, and they are now working with a state legislator to turn

EWOMA OGBAUDU '18CC

Akua Obeng-Akrofi

their proposals into bills. First on the list? "Reallocating NYPD resources for education," Miller says.

In a city where police have the latest hardware and children have outdated textbooks, Freedom March NYC is advocating for what it sees as sensible reductions of the $6 billion annual NYPD budget (police departments are often the largest line items for US city governments) in order to support other priorities. (In June, the City Council approved a budget that nominally shifted $1 billion from the NYPD, but critics assailed it as "funny math" and "smoke and mirrors.")

"The defund issue has been sensationalized," Miller says, "and yet we've been defunding education for years. The resource disparity among public schools is fixable, so why are we acting like it's not? And I use the word 'acting' intentionally, because it truly is an act. We're seeing a lack of conviction in our politicians. Their campaigns rest on being in bed with the NYPD and the police unions. Our question for them is, Who are you representing? You're not the voice of the people, because the people want change."

Freedom March NYC's second goal is to remove the police from schools and replace them with guidance counselors and therapists — and also to provide community programs for kids. The presence of police in schools sends a negative message and leads to students "getting arrested simply for having a bad day as children," Miller says. "There is no difference between being a white child and being a Black child. You still act out, you're still mischievous — we all are. The only difference is that one is deemed more criminal than the other." The transition will require much research and deliberation, says Miller, but the need is clear. "There are external factors that prevent kids from excelling in school and having a safe environment. Are we going to critically address the systemic issue, or will we look away?"

Miller sees the third goal — the establishment of a New York City youth public advocate — as the most readily attainable, citing youth commissions in Philadelphia and Los Angeles. "In New York, young people are never present at the table," Miller says. "Why not create a space and budget to get more youth involved in politics and activism? It's nothing that shouldn't be there already."

Points four and five deal with procedure for police misconduct. "In New York, the police investigate these cases. That means coworkers are investigating coworkers, which doesn't make sense," says Miller. "There needs to be a very transparent way of doing this, as well as measures to hold police officers accountable to the community." Freedom March NYC is also calling for an end to qualified immunity, which protects officers from lawsuits for most harm done in the course of policing. "There is no reason why police officers are exempt from being sued if they are behaving wrongfully, if their actions are hurting citizens," says Miller, "especially since our tax dollars are paying for them."

Miller sees this plan as a start, adding that "we can't talk about freedom in just five points. This is the long game." But time is short: "The youth are impatient," says Miller. "We're told that change isn't possible, but the pandemic has shown that society *can* pivot: we were able to think differently about how we study, how we work, how we shop. When leaders choose to prioritize something, the reaction is swift. That's clear.

"So what is to stop us from recognizing that for four hundred years we've had another pandemic that's been killing people at disproportionate rates? When are we going to cast the same energy toward racism, with the same sense of urgency?"

"WE CAN'T TALK ABOUT CIVIC ENGAGEMENT AND LEADERSHIP WITHOUT BEING THE LEADERS OUR GENERATION NEEDS."

Protesters fill Washington Square Park.

Miller's first and greatest hero is her mother, Hazel Ferguson, a Jamaican immigrant who came to the US in the 1990s. "She inspired me in so many ways," says Miller, who is the second-youngest of six children. When Ferguson first arrived in New York, she supported her family by doing whatever it took: she braided hair, worked as a nanny in Park Slope, became a dental assistant; then she got her PhD in psychology and is now a licensed social

SERICHAI TRAIPOOM

Nialah Edari and Miller

worker. A single mother who worried that her children (five girls and a boy) wouldn't get the same quality of education in their own school district as the kids she cared for in the Slope, Ferguson sent Miller and her siblings on long bus rides to attend schools in higher-income neighborhoods. Says Miller, "I remember being ten and thinking, Why do all my classmates live around the block and their parents are outside at dismissal time? Why do I live so far away?"

As she got older, Miller started to understand that there are "two realities, not only in America but in New York City," and that "our communities are the legacy of redlining." Redlining, a practice of denying federally backed mortgages to African-Americans by designating their neighborhoods as credit risks, began during the New Deal and resulted in segregated communities with severely unequal resources. "Going to that school opened my eyes and pushed me to go harder and want more," Miller says. "I thought, There's clearly more out here than what they're showing us, and I'm going to find it, and I *will* find it, because when you come from the background that I do — when you have a mother who is a warrior — you know you can't stop at the first door that closes. You have to keep on pushing and find opportunities. I have gone to tremendous lengths to make my mother proud."

When Miller was twelve, the family moved from Flatbush to a two-family house in East New York. Having been a caseworker for kids in the foster-care system, Ferguson turned one half of the house into a group home for girls in foster care. In addition to her four sisters, Miller also had foster sisters. Their stories revealed the profound dysfunction of city agencies. "I've had foster sisters who've been raped in the system and no one believed them," says Miller. "I've seen teenagers who just want to go back to their families, but the city says they can't because the home is too unstable or the parents are unfit. But you can't take kids from abusive households and put them in *other* abusive households, just because you've decided that's what's best for them."

It was this intimate understanding of the plight of foster children — especially girls — that shaped Miller's consciousness and led her to cofound WEBelieve. And the girls in the program have influenced her in turn. "I talk to girls about Harriet Tubman and all these incredible Black women leaders who paved the way for them," Miller says. "And I've realized that we can't talk about civic engagement and leadership without being the leaders our generation needs."

Miller is talking about leadership not just in the classroom or in the boardroom but also in the streets. "It's really a question of, when the horn blows, will you show up?" she says. "Will you put your body on the front lines for what you believe in?"

Figuratively and literally, Miller is walking the walk. Leading protests is draining work, and the emotional weight of current events and the physical demands of the marches "definitely takes a toll," she says. "You want to make sure you're present and amplifying the message, but you also need to keep in mind that you're human and have to take care of yourself. It's really important to keep up presence in the streets, to keep up the pressure and to show that we're organized and can sustain ourselves."

A major test will come in this election season. For Freedom March NYC, the fight is entering a new phase, with national elections in the fall and then, in 2021, city elections for mayor, comptroller, and City Council. Eyeing November, the group is teaming up with organizations in New York and other states to register and mobilize voters. Edari hopes to travel to her home state of Wisconsin as well as to Pennsylvania to help organize on the ground.

For Miller, this moment is one of those inflection points in history when you have to show up. The line has been drawn, and the trumpet has sounded.

"People ask themselves, 'What would I have done during the civil-rights movement? What would I have done during the time of slavery?'" Miller says. "Well, this is your answer: whatever you're doing now."

MYLES LOFTIN

Healing the Red-Blue Divide

An expert on conflict resolution offers a new perspective on the ideological tensions that he says are tearing the US apart

Peter T. Coleman '97TC, a professor of psychology and education, is the founding director of both the Difficult Conversations Lab at Teachers College and the Advanced Consortium on Cooperation, Conflict, and Complexity (AC4) at the Earth Institute. His research focuses on helping people with opposing viewpoints learn to talk about sensitive topics.

Q Tell us about your work.

Practitioners in the field of conflict resolution have long recognized that some types of conflict resist almost any attempts to address them. Whether between family members, ethnic or religious groups, communities, or countries, some conflicts endure for years or decades, worsening over time, exhausting the participants and locking them into patterns of destructive behavior.

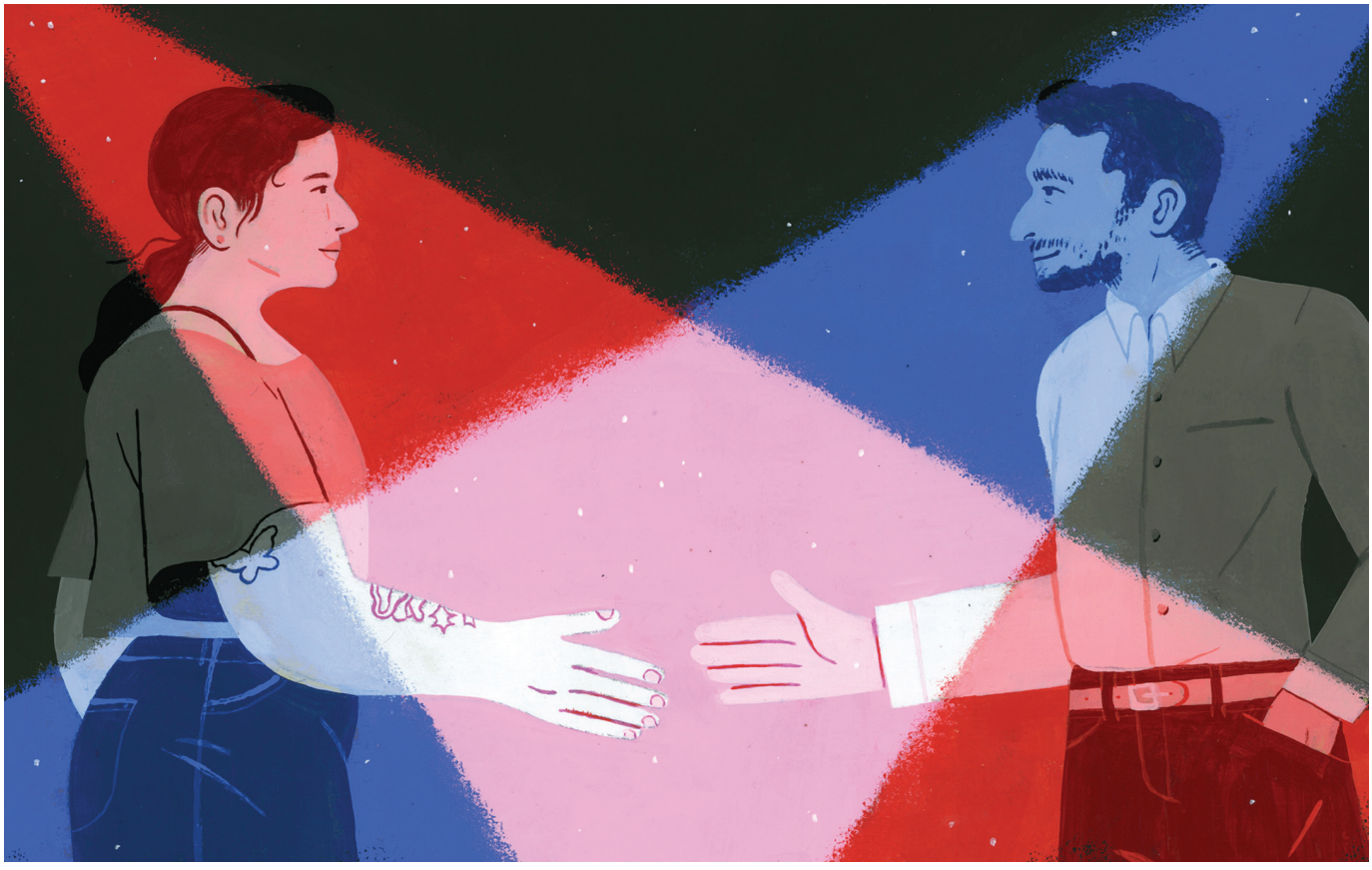
In 2004, I began to lead interdisciplinary teams of researchers — including social psychologists, political scientists, physicists, and complexity scientists — who study the internal dynamics of these situations. At Columbia's Difficult Conversations Lab, we investigate the circumstances under which dialogue can help promote mutual respect and empathy in people with opposing political viewpoints or, depending on how their conversations are managed, drive them further apart. This work, together with our analysis of real-world conflicts, has led us to identify several key qualities that the worst conflicts share. And by analyzing how seemingly intractable conflicts occasionally do get resolved, we've developed guidelines and principles for addressing them.

What kinds of conflicts have you looked at?

We've analyzed long-simmering ethnic tensions in places like Israel, Palestine, Kashmir, and Cyprus, as well as violent conflicts that have been peacefully resolved in Mozambique, Northern Ireland, and South Africa. At the Earth Institute's Advanced Consortium on Cooperation, Conflict, and Complexity, I oversee research that aims to shed new light on armed conflicts by examining how some nations are able to end such troubles or avoid them altogether, maintaining peaceful relations among their citizens and with other countries, even in unstable regions like the Middle East and West Africa. In the US, we've looked at gang rivalries, disputes involving accusations of racial discrimination in universities and other workplaces, and political contempt between Republicans and Democrats.

What could a gang dispute possibly have in common with partisan politics?

More than you'd think. First, each of these enduring conflicts, from the interpersonal to the geopolitical, is driven by many factors that reinforce one another. For this reason, the conflicts tend to grow increasingly complex and unpredictable. One of the really interesting observations



CELIA JACOBS

we've made is that as these quagmires persist and get more complicated and confusing, the participants actually tend to view them in simpler and simpler terms. Eventually they adopt a clear-cut us-versus-them perspective, seeing themselves as entirely in the right and their "enemy" as completely in the wrong. This is the result of a natural psychological impulse: we try to make sense of complex experiences by simplifying them. It relieves the anxiety we'd otherwise feel as a result of not knowing how to respond. Once this happens, a conflict can really get locked in, with both parties embracing rigid, polarized understandings of the problem; feeling rage, hatred, and a sense of victimization; and caring as much about inflicting harm on the other side as achieving their own goals.

How do you even start to deal with a conflict that has become so hardened?

The first step, we've found, is to help the disputants begin to recognize some of the nuances and moral complexities of the situation again. This is usually best achieved through dialogue — by sharing personal accounts of an experience and hearing one another — rather than debate, which is a more closed cognitive process aimed at winning an argument. Dialogue can open people up to learning and feeling new things; debate usually doesn't.

In your forthcoming book, *The Way Out: How to Overcome Toxic Polarization*, you focus on US politics. What drew you to the topic?

By some measures, Americans are more deeply divided, politically and culturally, than we have ever been before in our history. The situation has now reached a pathological state. You can see this in voting patterns in Congress, where Republicans and Democrats rarely cross the aisle to support one another's bills, which means they're getting almost nothing done. You can see it in the loss of decorum in the Senate and in the deterioration of civil discourse in general. And you can see it in the attitudes of ordinary Americans, who have grown more loyal to their own party and more contemptuous toward people on the other side. The Pew Research Center has good data on this. They periodically conduct surveys in which they ask Americans questions like "Would you support a relative marrying a member of the other party?" and whether they consider members of the opposing party unintelligent, closed-minded, immoral, unpatriotic, or lazy. They find that the level of enmity, distrust, and hostility that Republicans and Democrats now feel toward each other is at a historic high. More alarmingly, researchers at Louisiana State University and the University of Maryland recently found that 18 percent of Democrats and 13 percent of Republicans would condone violence if their party loses the presidential election in November. This is dangerous territory we're entering. We really need to reset this relationship. And some of the principles of conflict resolution that my team has developed, I think, can help.

Peter T. Coleman

What do you bring to the conversation?
Other academics, when examining hyper-partisanship in the US, have tended to look for a root cause of the problem. For example, many have argued that the source of the conflict is our politicized news landscape, where conservative and liberal TV networks only highlight information that confirms their audiences' biases. Others have blamed social-media platforms and the ideological echo chambers that they create. Still others point to gerrymandering, which has reduced the competitiveness of many elections and given candidates less incentive to appeal to political moderates. I believe that all these factors, and probably dozens of others, are fueling the situation. This is how difficult, heated, entrenched conflicts work: they don't have a single root cause but are extraordinarily complex. And this means they require messy, multifaceted solutions. This flies in the face of received wisdom in the social sciences, which has long held that the simplest, most elegant solutions are best. Policymakers, too, tend to look for simple, easy-to-grasp answers to problems. But my colleagues and I have found that highly complicated and emotionally charged conflicts don't respond to simple solutions. So it won't be enough for the next US president to project a unifying spirit — or for Facebook and Twitter to crack down on misinformation. If Americans are to escape this cycle of escalating political hostility, we need to hit the problem with everything we've got.

Where would you start?
I'd like to see a US president appoint members of the opposition party to his or her cabinet. Abraham Lincoln stocked his cabinet with many political rivals, because he thought it was important to have the country's smartest and most creative people, regardless of ideology, in the room with him discussing policy. I'd like to see congressional leaders of both parties require their members to live in Washington, DC, for most of the year and to socialize with one another regularly, in order to cultivate personal bonds and bipartisan cooperation. I'd like to see more states adopt ranked voting, where people indicate the order in which they prefer multiple candidates, since this encourages politicians to appeal to a broader swath of the electorate and not only cater to their party's base. And I'd like to see more done to build bridges between ordinary Americans, so that conservatives and liberals are reminded of one another's humanity and learn to treat each other civilly again. These are just a few of the levers that, over time, may help shift the tide.

You recently joined forces with a nonprofit group called Unite, which is led by the activist Timothy Shriver, to promote inter-party dialogue.
Yes, I am working with Unite to take stock of efforts that are already underway to promote solidarity between Republicans and Democrats, with an eye toward identifying programs that could be scaled up to serve more people. There are currently hundreds of community-based organizations running programs that bring people together to discuss politics, in hopes that they'll gain a more nuanced understanding of one another's views. There are also a number of initiatives happening in what I call "influence sectors," like journalism, TV, film, social media, education, law, and governance. So we'll be mapping the ecology of this nascent solidarity movement and looking for ways to help it grow.

A lot of the existing initiatives use communication strategies inspired by your research.
For many years, my team at the Difficult Conversations Lab has been conducting experiments to determine how best to frame information about polarizing issues so that both Republicans and Democrats will assimilate it and be willing to engage in open-minded dialogue about it. We do this by inviting people with opposing political viewpoints into our lab, presenting them with a written statement we've prepared about how conservatives and liberals tend to think about an issue like abortion, immigration, or gun control, and then asking them to discuss the statement. We've found that when the statement is rather simplistic, describing the opposing viewpoints in stark, dichotomous terms, the participants often get frustrated, impatient, and argumentative. But when the statement is more nuanced — emphasizing the ethical, moral, legal, and economic complexities of the topic — people are likelier to listen to each other and have a fruitful conversation.

JONATHAN HEISLER

So, yes, some dialogue-facilitation groups are now using framing techniques based on our lab work. Journalists and other media professionals are paying attention too. For example, I often speak to journalists about how to write more effectively about polarizing topics like climate change. I tell them: "You don't have to lead with the political debate about global warming in every story, because that can just make climate skeptics feel defensive and lead them to dismiss everything else in your article. Skip ahead to the more nuanced aspects of the issue, like those pertaining to climate solutions, and more of them will listen to you."

What would you recommend we do in our daily lives to foster better communication?

I would suggest that you seek out three respected thinkers who are on the opposite side of the ideological spectrum but whom you find reasonable and intellectually honest and follow them on Twitter or Facebook. Make a point of interacting with people whose lives and backgrounds are very different from your own. And bear in mind that no matter how smart you are and no matter how sure that the truth is on your side, we're all prone to what psychologists call confirmation bias, which means that we're likelier to absorb information that supports what we already believe. So approach your conversations with some humility.

"Dialogue can open people up to learning and feeling new things; debate usually doesn't."

I can imagine that social activists — liberal and conservative alike — might wonder if achieving bipartisan harmony will require us to compromise our ideals.

Not necessarily. I'm not saying we need to eliminate conflict. Conflict is a healthy part of life, so long as we're able to manage it well and not let it make us crazy. Conflict is how we learn and grow — as individuals and as a nation. What I'm saying is that political polarization in the US has reached a point where we're no longer constructively negotiating our differences. We're not listening to each other, we're not growing, and God knows we are not addressing our most critical problems. We're just at loggerheads. We've come to detest one another, and we're shutting down. We need to learn to talk again.

— David J. Craig

SHUTTERSTOCK

Surprise! Your sweet tooth is really in your gut

Why, after decades of trying, have food and beverage companies failed to come up with an artificial sweetener that delivers the same deep satisfaction as sugar? A team of Columbia neuroscientists led by Charles Zuker, a principal investigator at the Zuckerman Mind Brain Behavior Institute, think they have found the answer. Their studies show that our perception of sweetness is based on signals our brains receive not just from the taste buds on our tongues, but also from very different, previously undiscovered sensors in our bellies. The moment sugar arrives in the stomach, the researchers discovered, a special protein there detects its presence and relays a message — via a well-known conduit between gut and brain called the vagus nerve — to a part of the brain stem that lights up with excitement.

"By recording neuronal activity in the vagus nerve, we pinpointed a cluster of cells in the nerve that respond to sugar," says study coauthor Alexander Sisti '10CC, '20GSAS. "We saw, for the first time, sugar-sensing via this direct pathway from the gut to the brain."

This second independent pathway for announcing sugar's presence to the brain seems to be critical. In experiments on mice, the scientists stimulated the brain region that receives the stomach's signal and managed to fool the mice into thinking they were ingesting sugar when they were actually getting a substitute. (When offered sugar-free Kool-Aid, which they would not ordinarily crave, mice slurped it up ravenously when the brain region was switched on.)

The scientists hope that the discovery will lead to the development of more-satisfying sugar substitutes. This could have profound public-health benefits, they say, since overconsumption of sugar is a leading cause of obesity-related conditions such as diabetes, which afflicts five hundred million people worldwide.

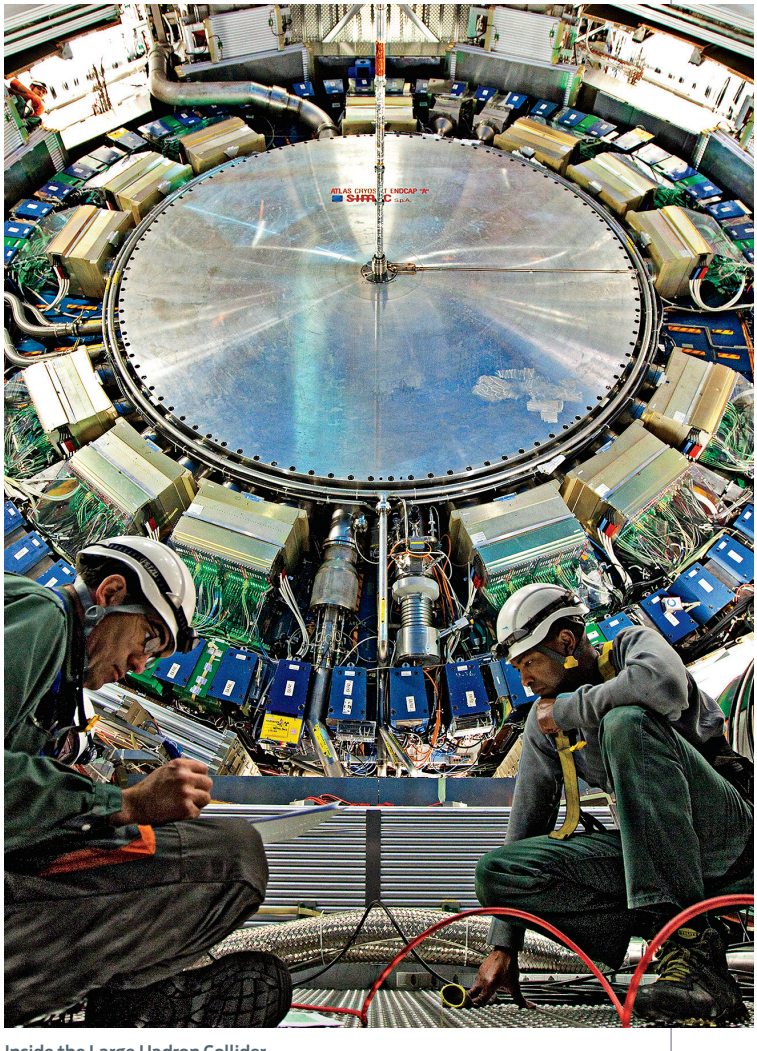
"When we drink diet soda or use sweetener in coffee, it may taste similar, but our brains can tell the difference," says joint first author Hwei-Ee Tan '20GSAS. "The discovery of this specialized gut-brain circuit that responds to sugar — and sugar alone — could pave the way for sweeteners that don't just trick our tongue but also our brain."

Columbia physicists to upgrade atom smasher

A team of Columbia physicists is leading a $75 million, multi-institution effort to increase the power of the ATLAS particle detector at the Large Hadron Collider, outside Geneva.

The upgrades, funded by the National Science Foundation, will dramatically enhance the ability of the seven-thousand-ton machine to detect exotic particles that momentarily appear when protons are smashed together at nearly the speed of light in a seventeen-mile-long circular underground tunnel.

The five-year project, which will involve hundreds of physicists from nearly twenty institutions, promises improvements that "will enable scientists to push the boundaries of discovery, increasing the likelihood of revealing entirely new phenomena — from extra dimensions of space to the building blocks of dark matter," says Michael Tuts, a professor of physics and the principal investigator on the project. "They will bring us closer to decoding how the universe truly works."



Inside the Large Hadron Collider.

LEFT: CERN; RIGHT: SHUTTERSTOCK

New climate studies show how earth is changing

As economic activity has slowed during the COVID-19 pandemic, the world has been given a tantalizing glimpse of what life could be like without fossil fuels: cities from New York to London to Beijing are enjoying cleaner air, and scientists are reporting sharp declines in the amount of CO_2 entering the atmosphere.

But the drop-off in greenhouse-gas emissions will have to be sustained in order to avoid the worst possible consequences of global warming, such as the submersion of coastal cities and massive human migration. "Even if we were to stop burning all fossil fuels today, it would take decades for the greenhouse gases we've already put into the atmosphere to dissipate and for global temperatures to stabilize," says climatologist Marco Tedesco, a professor at the Lamont-Doherty Earth Observatory.

The big question now, experts say, is whether the US, China, and other large carbon emitters will be willing to move away from fossil fuels as they rebuild their economies. Whatever the outcome, three new Columbia studies on the impact of climate change illustrate what's at stake.

Extreme drought may be the new normal

For nearly twenty years, the western US has been suffering from a drought that has caused catastrophic wildfires and drinking-water shortages.

How much worse could the situation get? And to what degree is man-made climate change to blame?

Columbia scientists have been investigating these questions for years. For example, by analyzing tree rings, whose width and density vary according to climate conditions, they have sought to determine

whether severe droughts have occurred in the region before, and if so, how long they lasted and what caused them.

In their most comprehensive analysis to date, the Columbia researchers have now concluded that the current drought is as bad as or worse than any in the western US in recorded history. Since 800 AD, they say, there has been only one other drought, lasting from 1575 to 1603, that compares to the current one. That event, along with a handful of less severe multiyear droughts for which the scientists found evidence, was caused by cyclical changes in the earth's ocean currents commonly called La Niña. But based on an analysis of huge quantities of modern weather data, the scientists calculate that global warming is equally responsible for the severity of the current long-term drought.

Since temperatures are projected to keep rising, it is likely that droughts will continue for the foreseeable future. "Because the planet is getting warmer, the dice are increasingly loaded toward longer and more severe droughts," says lead author Park Williams, a Lamont climatologist. "We may get lucky and natural variability will bring more precipitation for a while. But going forward, we'll need more and more good luck to avoid drought." In fact, Williams says it is conceivable that the region could stay arid for centuries.

Lamont climatologist Richard Seager '90GSAS was one of the first to suggest, in a 2007 paper, that global warming would eventually push the western US into a more arid climate. In 2015, his Lamont colleague Benjamin Cook led a follow-up study projecting that catastrophic droughts would become commonplace in the area by the end of the century.

Rivers have dried up in Arizona.

Now, says Cook, it looks like his paper may have been overly optimistic. "It's already happening," he says.

Heat and humidity could surpass human tolerance

While most discussions of climate change revolve around intensifying floods, droughts, storms, and forest fires, scientists say we face a more direct threat to human survival. Extreme levels of heat and humidity, they warn, are threatening the lives even of strong, physically fit people in the tropics and subtropics.

Construction workers in Bangladesh are at risk.

A new Columbia study, based on detailed analysis of weather-station data from around the world, identifies hundreds of occasions in recent years in which the combined effects of heat and humidity have resulted in heat-index values reaching 125°F or higher, making it dangerous for people to be active outdoors. (The heat index, or "feels-like" temperature, describes the cumulative impact of heat and humidity; the latter, by reducing the rate at which sweat evaporates off the skin, limits the body's ability to cool itself.) Such episodes are now occurring regularly in India, Bangladesh, Pakistan, southern China, the Middle East, subtropical Africa, northwestern Australia, western Mexico, the Caribbean, and the southern United States — mainly in Texas, Louisiana, Mississippi, Alabama, and Florida.

The study also finds that the heat index has in recent years exceeded 160°F — considered the absolute threshold of human tolerance, above which even someone relaxing in the shade with plenty of water would die of heat exhaustion — more than a dozen times in Saudi Arabia, Qatar, and the United Arab Emirates.

Prior studies failed to detect most of these events, because climate researchers usually look at averages of heat and humidity measured over large areas and over several hours at a time. The Columbia researchers instead drilled directly into hourly data collected at nearly eight thousand individual weather stations since 1979. This enabled them to pinpoint shorter-lived episodes of extreme heat and humidity, revealing that such episodes have doubled over the past four decades.

Additional research will be needed to understand the consequences of such torrid weather. But scientists say the effects are likely to be dire, in terms of both public health and economics. Other studies have shown that extreme heat caused at least ten thousand deaths in the US between 1999 and 2016 and that it disrupts commerce by forcing farmers, construction workers, and others indoors. As extreme-weather events become more frequent in the decades to come, they say, some parts of the world could become uninhabitable.

According to study coauthor and Lamont climate scientist Radley Horton '07GSAS, "We may be closer to a real tipping point on this than we think."

Glaciers face threats beyond rising temperatures

The Greenland ice sheet had its worst year on record in 2019, shrinking by some six hundred billion tons. The staggering loss of ice and consequent sea-level rise are part of a decades-long trend that is expected to raise the global watermark one to three feet by the century's end.

But what exactly is causing the ice loss? Are skyrocketing Arctic temperatures the sole culprit, or are other cli-

LEFT: YAROMIRM / SHUTTERSTOCK; RIGHT: KEVIN KRAJICK '76GS, '77JRN

Marco Tedesco surveys the Greenland ice sheet.

mate forces at play? To answer that question, Marco Tedesco and his colleague Xavier Fettweis of the University of Liège in Belgium used satellite data, ground observations, and climate models to analyze changes in the ice sheet during the summer of 2019. They discovered something alarming: the unprecedented ice loss was driven not just by rising temperatures in the region but by a shifting jet stream that in recent years has been blowing fewer clouds over Greenland, exposing the ice to more unfiltered sunlight and bringing it less replenishing snow. At the same time, new atmospheric circulation patterns are pulling pockets of balmy air up from lower latitudes.

"Imagine this vortex rotating in the southern part of Greenland, and it's literally sucking in the moisture and heat of New York City, for example, and parking it in the Arctic," says Tedesco.

Because researchers have not yet accounted for these strange new circulation patterns in the computer simulations they use to make long-term climate projections for the Arctic, Tedesco says, the scientific community may be dramatically underestimating the rate at which Greenland's ice sheet will shrink over the next few decades. "It's almost like missing half the melting," he says.

Gaining a more nuanced understanding of the ice sheet's response to climate change is crucial, especially for coastal communities around the world that are considering expensive adaptation projects like erecting seawalls. The second-largest ice deposit on earth after Antarctica's, the Greenland sheet contains enough frozen water to raise global sea levels more than twenty feet. And while it is not expected to melt away entirely for centuries, even small accelerations could be significant.

"The atmospheric changes we've observed seem to be related to, among other things, the disappearance of snow cover in Siberia, the melting of sea ice, and differences in the rates of warming in the Arctic versus the mid-latitudes," Tedesco says. "They are likely to endure in the future."

KEVIN KRAJICK '76GS, '77JRN

STUDY HALL
RESEARCH BRIEFS

Fatty fish is brain food A new study led by Ka Kahe, a professor of epidemiology, obstetrics, and gynecology at Columbia University Irving Medical Center, finds that eating fish high in omega-3 fatty acids can protect the brain against the damaging effects of neurotoxins in air pollution.

The genes to beat the heat By analyzing the genomes of hundreds of corals along Australia's Great Barrier Reef, Columbia biologist Molly Przeworski and colleagues have identified genes that may help these marine invertebrates survive in warmer waters. Selectively breeding corals with these genes, experts say, could improve the resilience of large coral reefs, which are being rapidly destroyed by climate change.

Pot primes teens for coke addiction A history of marijuana use may make teenagers' brains react more strongly to cocaine and therefore increase the risk of addiction, according to a study on young rats by scientists from Columbia and the University of Cagliari in Italy. The Columbia team was led by Nobel-laureate neuroscientist Eric Kandel; his wife, epidemiologist Denise Kandel '60GSAS; and Philippe Melas, a former research scientist in Eric Kandel's lab.

Pandemic could put multitudes on streets Columbia economist Brendan O'Flaherty estimates that the economic downturn prompted by the COVID-19 pandemic will cause homelessness in the US to increase by as much as 45 percent, with up to eight hundred thousand Americans living on the streets.

Startups a key to recovery America's economic recovery will flounder unless policymakers financially assist entrepreneurs who have ideas for startups that are suitable to the post-pandemic business environment, finds Jorge Guzman, an assistant professor of management at Columbia Business School.

High-tech treasure map By determining the geological conditions in which copper, lead, zinc, and other base metals form, a team of geologists led by Mark Hoggard, a postdoctoral researcher at Columbia's Lamont-Doherty Earth Observatory, has created a global map showing where giant deposits of the metals are likely to exist. The researchers say their maps should increase access to the metals, which are vital to the electronics and renewable-power industries but are in short supply.

Save every drop Researchers led by Ngai Yin Yip, an assistant professor of earth and environmental engineering at Columbia, have invented a new wastewater-treatment technique that can convert human urine into fertilizer-grade ammonia, which they say could benefit agriculture while improving sanitation throughout the developing world.

Above: Kern Collymore and Janene Yazzie. Inset: Collymore (left) installs solar generators on a family farm that doesn't have electricity.

JANENE YAZZIE

Hope on the Reservation

In late spring, the epicenter of the coronavirus pandemic in America was arguably not a major metropolitan area but a large swath of the rural Southwest — the Navajo Nation. For several harrowing months, the reservation saw some of the highest per capita infection and mortality rates in the country. By late July, there were some signs of hope. Cases reached a plateau, and deaths began to decline. But Janene Yazzie '10BC, a member of the Navajo Nation who works with her husband, Kern Collymore '10CC, as an advocate, consultant, and community organizer on the reservation, where she was born and raised, says that the crisis still feels urgent.

"The numbers are improving, but there is also less widespread community testing than there was at the peak, so we don't know exactly what we're dealing with," Yazzie says. "People are still dying every week."

Yazzie and Collymore are more qualified than most to understand the issues affecting the Navajo. After graduating from Barnard and Columbia, respectively, they founded Sixth World Solutions, a consulting firm that works with Navajo communities on everything from grant writing and business-plan development to youth outreach and educational workshops. Since the initial COVID-19 outbreak in the US in early March, they have focused most of their time on efforts to combat the crisis.

Initially, Yazzie and Collymore partnered with the COVID-19 Navajo and Hopi Families Relief Fund to get food and medical supplies to Navajo communities. In addition to organizing volunteers, raising money, and soliciting supplies, the couple, who live in a small town on the Arizona–New Mexico border with their two young children, spent their days making deliveries of food, masks, gloves, gowns, and other goods to remote areas. "These are often places without paved roads or addresses," Collymore says. "It would take us two or three hours to reach a single house."

As cases surged on the reservation in May and June, Yazzie and Collymore began to take on different roles within the relief effort, hoping to do work that would have more of a long-term impact. "There are now a lot of people on the ground doing food work," Collymore says. "We wanted to shift focus

and gear up for winter — which is likely to bring a new outbreak — and beyond."

Collymore is now spending most of his time on projects that support sustainable farming, such as installing rainwater-collection systems and solar generators on local farms. Meanwhile, Yazzie is working with a network of mutual-aid groups in the region to solicit donations. She is also very active in the international indigenous community and has been developing a series of webinars on the impact of the virus on the Navajo Nation and participating in meetings to learn how other global indigenous groups have worked to combat the pandemic.

"In addition to focusing on the immediate needs, we're trying to recognize and address the root causes of the crisis," Yazzie says.

One of those root causes, she says, is a lack of access to food and medical care. The Navajo Nation spans over seventeen million acres, covering large portions of Arizona, New Mexico, and southern Utah. It's bigger than ten US States by area, and it has a population of nearly 175,000. But despite its size, there are just eight health-care facilities and thirteen grocery stores servicing the entire reservation, says Yazzie. And that's just the start of the list of circumstances that may be making the reservation's COVID-19 crisis particularly acute.

"The Navajo people have a whole slew of preexisting conditions that are the result of years of environmental contamination — things like uranium mining, coal mining, and fracking," she says. "There was also a significant delay in testing, so once the first cases emerged, there was no way to track or contain it. Families live communally, so social distancing and isolating is impossible. And up to 40 percent of Navajo families don't have running water, making hand-washing more difficult."

In addition to these vulnerabilities, a significant portion of the reservation lives below the poverty line, which made it impossible for them to stock up on supplies at the beginning of the pandemic. Once the reservation closed its borders, the few grocery stores were quickly overrun, contributing to further spread.

"We've been working on the reservation a long time and are aware of the endemic problems that make this population so vulnerable," Yazzie says.

Yazzie and Collymore are hopeful that their work will not only help the community through this difficult time but will also address some of the larger social and environmental issues within the Navajo Nation.

"We're really trying to think about the long-term future," says Collymore. "When COVID is finally behind us, our hope is that the community will actually be in a better place than it was before the virus hit."

— Rebecca Shapiro

NETFLIX; HULU; HBO; SKYLINE: LIBRARY OF CONGRESS

10 Bingeable Shows Made by Alums

13 Reasons Why (2017–2020) Developed and executive-produced by Brian Yorkey '93CC, this teen drama takes a deep dive into the issues of depression and bullying. **Netflix**

Angels in America (2003) Tony Kushner '78CC, '10HON adapted his Pulitzer-winning play for this limited series, which stars Al Pacino as Roy Cohn '46CC, '47LAW. **Amazon Prime Video, HBO**

Indian Matchmaking (2020) Smriti Mundhra '09SOA created and executive-produced this docuseries, which follows a professional matchmaker as she attempts to pair up Indian singles. **Netflix**

House of Cards (2013–2018) From playwright and screenwriter Beau Willimon '99CC, '03SOA, this political drama put Netflix on the map as a producer of high-quality original content. **Netflix**

The Looming Tower (2018) Actor and screenwriter Dan Futterman '89CC co-created this adaptation of Lawrence Wright's 2006 Pulitzer-winning book about the origins of the 9/11 attacks. **Hulu**

Making a Murderer (2015–2018) This true-crime docuseries from Laura Ricciardi '07SOA and Moira Demos '96CC, '08SOA explores the complexities of the criminal appeals process. **Netflix**

New York: A Documentary Film (1999–2003) In this eight-part PBS series, documentarian Ric Burns '78CC, '83GSAS chronicles the history of New York City in all its grit and glory. **Amazon Prime Video**

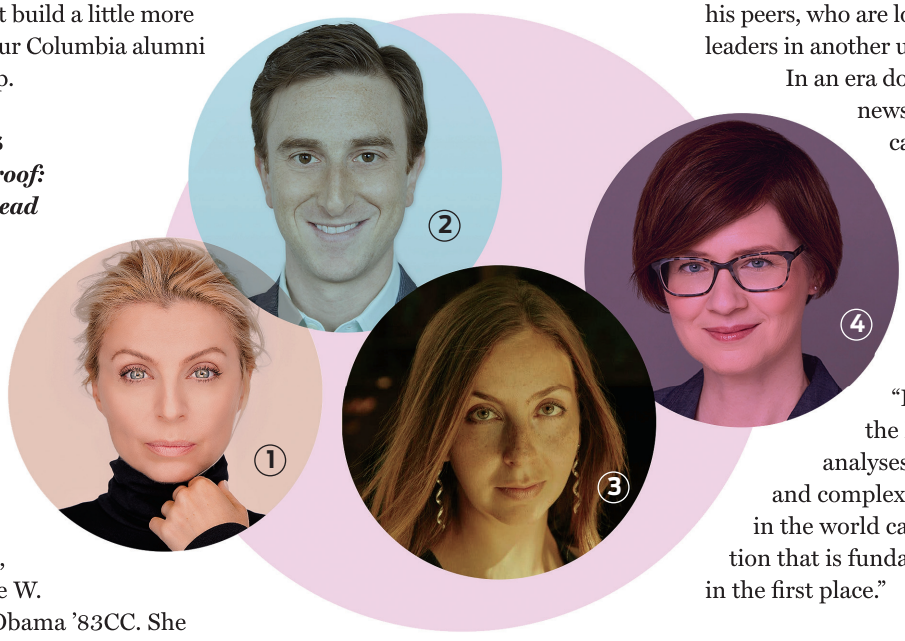
Orange Is the New Black (2013–2019) This massively popular dramedy from creator Jenji Kohan '91CC takes a humanizing and multilayered look at life in a minimum-security federal prison for women. **Netflix**

Unbelievable (2019) This series is based on the true story of a series of rapes that occurred between 2008 and 2011. Executive producer Lisa Cholodenko '97SOA directed the first three episodes. **Netflix**

Watchmen (2019) Nicole Kassell '94CC served as an executive producer and director on this show inspired by the 1983 DC Comics superhero series of the same name. **HBO**

4 Self-Improvement Authors We're Reading While the World Implodes

For better or for worse, social distancing has left plenty of time for self-examination, and with it, new opportunities for personal growth. Whether you're looking to up your game at work, improve your relationships, or just build a little more confidence, these four Columbia alumni authors want to help.



1 Evy Poumpouras

Becoming Bulletproof: Protect Yourself, Read People, Influence Situations, and Live Fearlessly

As a special agent for the United States Secret Service, Evy Poumpouras '18JRN protected Presidents George H. W. Bush, Bill Clinton, George W. Bush, and Barack Obama '83CC. She served as a criminal investigator and as a special interrogator trained in the art of lie detection, and she won an award for valor for her role as a first responder on 9/11. But Poumpouras says that her most powerful weapon is something that everyone has in his or her arsenal — words. In her new book, she shows readers how to use effective communication to conquer fears, diffuse stressful situations, read people, and ultimately influence others to get what you want. Poumpouras says that controlling panic, preparing for any outcome, and careful listening are the keys to handling most problems — at the office, in a relationship, and especially in a true crisis.

Quick take: "The best way to manage fear is preparation. It isn't hiding from the things we're afraid of — it's facing them head-on, taking responsibility for our own safety, and giving ourselves the tools and knowledge we need to manage any situation that might come our way. It's about confidence, personal strength, and self-sufficiency."

2 Peter Kozodoy

Honest to Greatness: How Today's Greatest Leaders Use Brutal Honesty to Achieve Massive Success

Peter Kozodoy '19BUS graduated from college in 2008, in the midst of a devastating worldwide recession. Improbably, he was able to build a thriving marketing firm, which now boasts a client list packed with Fortune 500 companies. The secret to his success? Kozodoy says it was his brutal, unrelenting honesty — and not just in how he dealt with his clients. Honesty, he writes, can take many forms, but perhaps what's most important in business is learning to be honest with yourself — even if that means facing the fact that you might need to change your business model to keep up with a changing market, or with competition that is doing better. Now also a TEDx speaker and business coach, Kozodoy uses his first book to offer advice to companies looking to attract a new generation of consumers, and to his peers, who are looking to become leaders in another uncertain economy.

In an era dominated by "fake news" and social-media cancel culture, Kozodoy preaches that transparency, facts, and a commitment to openness are more important than ever.

Quick take: "It turns out that all the MBAs, cash flow analyses, marketing tactics, and complex consulting strategies in the world can't save an organization that is fundamentally dishonest in the first place."

3 Maria Konnikova

The Biggest Bluff: How I Learned to Pay Attention, Master Myself, and Win

Most poker champions start playing because they want quick money. But for Maria Konnikova '13GSAS, a best-selling author with a PhD in psychology, poker is a way to understand human behavior. Konnikova started out studying poker legend Erik Seidel as research for a book but ended up becoming interested in playing herself — and found that she was good at it. Now a full-time professional poker player with over $200,000 in winnings to her name, Konnikova shares some of what she's learned along the way — lessons that she says are applicable beyond the casino. Konnikova, who studied game theory at Columbia along with psychology, is fascinated by the "ineffable balance between skill and chance" that governs both poker and life in general.

KONNIKOVA: LANDON SPEERS; ALTHOFF: JOEL BENJAMIN

She found that while anyone can be either lucky or unlucky in a single hand of poker, "luck is a short-term friend or foe," and those players who learn from their experiences end up being successful overall.
Quick take: "Poker teaches you how and when you can take true control — and how you can deal with the elements of pure luck — in a way no other environment I've encountered has quite been able to do. What's more, in an age of omnipresent distraction, poker reminds us just how critical close observation and presence are to achievement and success."

4 Susanne Althoff

Launching While Female: Smashing the System That Holds Women Entrepreneurs Back
The startup economy is still hot, but women entrepreneurs receive only 3 percent of venture-capital investments. Plus, many women entrepreneurs are pigeonholed into industries serving stereotypically female concerns — like pregnancy and parenting. For her new book, journalist Susanne Althoff '93JRN interviewed more than one hundred female and nonbinary entrepreneurs. She outlines some of the particular challenges they face, such as a lack of mentorship, an inability to be taken seriously by investors, sexual harassment, and impossibly high standards for their leadership (what would happen, Althoff asks, if a female CEO behaved like Elon Musk?). But Althoff is optimistic about the future and offers practical solutions for women looking to get ahead in the business world.
Quick take: "Women are missing from the entrepreneurial space. They own fewer companies than men, and those businesses have access to significantly less start-up capital, make significantly less revenue, and employ far fewer people. An entrepreneurial gender gap exists, and it leaves us with fewer jobs, a weaker economy, and less innovation. Building a start-up world that's open and inclusive would benefit us all."

— Rebecca Shapiro

A Lens on Global Unrest

In the fall of 2019, self-taught photojournalist Bing Guan '17GS traveled to Hong Kong to capture the growing student protest movement there. "It's the biggest uprising in China in a generation," Guan says. "I felt like I had to be there."

Six months later, Guan suited back up in his PPE — a climbing helmet, goggles, and a respirator — to photograph another set of escalating protests. But these were right outside his door, in Los Angeles.

"I never thought an uprising would happen like this in the United States. Our attention span with outrage tends to be very short," says Guan. "It's been amazing to see."

ABOVE, Hong Kong: An anti-government protester throws a Molotov cocktail at riot police. BELOW, Beverly Hills: Two demonstrators flee as police throw tear gas into the crowd.

TOP: ISAAC YEE

ASK AN ALUM: WHY PARKS ARE MORE IMPORTANT THAN EVER

Architect and real-estate planner **Adam Ganser '10GSAPP** is the new executive director of New Yorkers for Parks, a nonprofit dedicated to the preservation and expansion of public green space.

What exactly does New Yorkers for Parks do?
Our primary goal is to advocate for the development and maintenance of parks for all New Yorkers. Part of our role is to be a watchdog — holding the city accountable for the promises it's made and the policy initiatives we think are most important. We also give a voice to the many residents of New York City who feel like they're not being heard. We're especially focused on making sure that resources for parks are distributed to underserved areas, like outer-borough neighborhoods populated mostly by people of color.

Why is park advocacy necessary?
Parks and open space are essential for recreation, public health, economic development, and social equity in any urban setting. Yet parks are often the last places where cities invest money and the first places where they cut funding. New York has historically spent a smaller percentage of its overall budget on parks than most other top cities in the United States. This year, the pandemic has laid bare how crucial outdoor spaces are — people are relying on parks more than ever.

Tell us how New York has handled its parks during the pandemic.
The city tried to leave as many spaces open as possible. We're fortunate to have some very large parks here. But the closure of facilities like playgrounds and basketball courts in the spring had catastrophic effects on mental and physical health for a lot of residents. People were cooped up without exercise or fresh air, and with few ways to interact with their communities. There's also the issue of heat. Beaches, pools, and playgrounds with sprinklers usually help people who don't have air conditioning to get out of their apartments and cool off. Thankfully, the city did reopen playgrounds and started to allow swimming at beaches in July. The pandemic is potentially going to be with us for a long time, so we need to figure out how to manage park spaces so that they're safe and providing the services that we all need.

What is New Yorkers for Parks working on now?
For the past two years, we've been developing a campaign called Play Fair, which is focused on increasing the Parks Department's budget to pay for maintenance, operations, and programming. A key component is pushing the city to provide more funding for Parks Enforcement Patrol (PEP) officers — Parks Department staff that enforce park rules — so that PEP is monitoring parks rather than the NYPD. The campaign is becoming even more critical now in light of the pandemic and the racial injustices we've seen in our parks. Unfortunately, the Parks Department budget was cut by 14 percent this year, a loss of roughly 1,700 jobs. Now we're focusing on increasing the budget for the next fiscal year, and beyond that making parks an important issue in the 2021 mayoral election.

Randall's Island Park, in New York's East River.

Is it realistic to expect new parks in the near future?
Absolutely. There have been parks planned for a long time. The Bloomberg administration really prioritized developing new spaces, specifically along waterfronts and on the West Side of Manhattan — the High Line, where I oversaw design and planning before coming to New Yorkers for Parks, was a part of that. But the current administration has not made new parks a priority. With the economic recession we're entering, our organization is going to be advocating that new parks, many of which are shovel-ready ideas that have been around for decades, be part of the city's recovery. There's going to be a lot of spending on infrastructure in the upcoming years, and investing in parks is one way we can shape New York City into a healthier and more equitable place.

What are some of your favorite parks?
I love Randall's Island. It's kind of a hidden gem even though it's massive and in the middle of the city. I also love the High Line, because I was so involved in saving, developing, and designing it. Lastly, I love Prospect Park in Brooklyn. It's where my wife, Mia Sage '11TC, and I take our kids; it's where they're going to learn how to ride bikes. It's where we meet our friends. I consider it my home park.

— Julia Joy

TOP: LIZ LIGON; BOTTOM: FRANCES ROBERTS / ALAMY

Nancy Cohen with *13A* (left) and *Espiritu Santo*, two drawings influenced by the pandemic.

COURTESY OF NANCY COHEN

Art Under Quarantine

Nancy Cohen '84SOA is used to spending her days alone. As she works on the huge handmade-paper drawings and sculptural installations that have brought her critical acclaim, the hours pass quickly. Solitude is a gift that sustains her. But Cohen's work, like that of many artists, has been, she says, marked by "the sadness of the virus and greatly influenced by it."

Two recent drawings, part of an ongoing series, were started before the pandemic but evolved as COVID-19 tightened its grip on the East Coast. One, titled *13A*, captures the orange flames and eerie light emanating from petroleum refineries near Exit 13A on the New Jersey Turnpike. Cohen, who works from a studio in Jersey City, says that over time this work has become more desolate, which feels "very parallel to this moment."

The second drawing, *Espiritu Santo*, captures the memory of a trip to a remote island off the coast of Mexico. Cohen was hiking in the desert, and as she approached the sea she was struck by the intertwining spiral patterns of sand and water created by the tides. "It was one of the most beautiful things I have ever seen," she says.

She worked on *Espiritu Santo* for more than three months, adding thick layers of paper pulp to create texture, color, and dimension, and as she worked, the memory of that moment on the beach comforted her. She says that during the lockdown, she began almost subconsciously to introduce the color gold. "There's a knowing and a not knowing in the making of art, but I think the gold gives the drawing a spiritual and ephemeral quality," she says, noting that in art, the use of gold is traditionally associated with heaven and angels.

"It helped me to convey the idea of a place that was beautiful but fragile and to capture the transient nature of life at this time."

NEWSMAKERS

- **Charlotte Buck '18CC** was selected to train full-time with the US Olympic rowing team. Buck, who earned a bronze medal at the World University Rowing Championships while she was at Columbia, is hoping to participate in the postponed Tokyo Olympics in 2021, as well as the Paris Olympics in 2024.

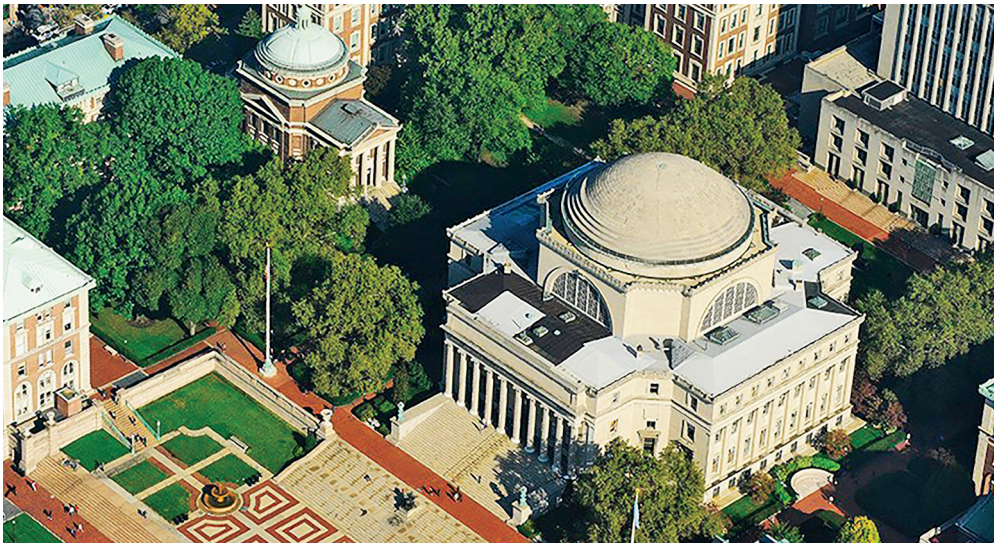
- Four alumni filmmakers had their work selected for the 2020 Cannes Film Festival, although the event was not held. *The Truffle Hunters*, codirected by **Gregory Kershaw '11SOA**, was one of three documentaries chosen for the festival. *Broken Keys*, written and directed by **Jimmy Keyrouz '16SOA**, and *Beginning*, cowritten and directed by **Dea Kulumbegashvili '18SOA** and produced by **Ilan Amouyal '17SOA**, were picked in the "first features" category. Additionally, *Forastera*, a short film written and directed by current SOA student **Lucía Aleñar Iglesias** and produced by **Marta Cruañas '20SOA** was honored in a festival sidebar.

- Two Columbians were nominated for Emmy Awards this year: **Kate McKinnon '06CC** for best supporting actress in a comedy, for her work on *Saturday Night Live*, and **Nicole Kassell '94CC** for best directing for a limited series, for her work on an episode of *Watchmen*.

- ESPN included **John Andrzejek '14CC** on its list of the best young coaches in college basketball. Andrzejek, who graduated from Columbia in just two and a half years, is an assistant coach at Washington State University, having worked in recruitment and management at Dartmouth, Johns Hopkins, and Columbia.

BULLETIN

UNIVERSITY NEWS AND VIEWS



UNIVERSITY ANNOUNCES EFFORTS TO ADDRESS RACISM

This summer, after protests set off by the killing of George Floyd had spread across the country, President Lee C. Bollinger issued an open letter to the Columbia community outlining a number of initiatives the University is undertaking to address racism, and anti-Black racism in particular.

In the letter, which was posted to Columbia's website and e-mailed to members of the community, Bollinger announced that the University is accelerating its ongoing efforts to recruit, retain, and promote Black, Latinx, and other underrepresented faculty members and that it is establishing a process to consider symbols on campus that have an association with "enslavement, racial hierarchy, and other forms of systemic injustice."

In addition, Bollinger announced that the Offices of University Life, the Provost, and Government and Community Affairs are working with faculty, staff, and students to identify systemic issues at Columbia that need to be addressed and to propose solutions; to form a working group with the Office of Public Safety to ensure that policing and security work on campus is nondiscriminatory; and to strengthen connections with the Harlem and Washington Heights communities by expanding existing partnerships, inviting new ideas for collaboration, and creating a University-wide infrastructure for facilitating engagement with local residents.

"Whether as a person, an institution, or a society, we are all rightly being called upon to do more and to begin again, with a great sense of honesty and new purpose," Bollinger wrote. "I am committed to that task, but, more importantly, Columbia is committed to it. Columbia is an old institution by the standards of the United States, and it has its share of shameful periods and moments of great progress. I hope we can collectively add to the latter."

THE PATH FORWARD

To help faculty, students, staff, and other community members stay abreast of the steps that Columbia is taking to operate safely during the coronavirus pandemic, the University has created a website with all the latest information about course delivery, safety and health protocols, student life, and more. Visit the online resource guide at covid19.columbia.edu.

EILEEN BARROSO

ORAL HISTORIANS DOCUMENT NEW YORKERS' PANDEMIC EXPERIENCES

How has the pandemic affected different communities in New York City? How are perceptions of the crisis changing over time? What will the city look like after the virus recedes?

These are a few of the questions that Columbia's Interdisciplinary Center for Innovative Theory and Empirics (INCITE) and the Columbia Center for Oral History Research (CCOHR) are exploring in a new joint venture, the NYC COVID-19 Oral History, Narrative, and Memory Archive, an ambitious effort to document New Yorkers' experiences of the pandemic.

Through a grant from the National Science Foundation, the CCOHR team — led by Peter Bearman, Mary Marshall Clark, Ryan Hagen '19GSAS, Denise Milstein '07GSAS, and Amy Starecheski '95CC, '05TC — is surveying more than one thousand New Yorkers about their reactions to the crisis and asking hundreds of them to keep diaries about their experiences. In addition, a team of thirty sociologists and oral historians will be conducting six hundred in-depth interviews over the next year and a half.

The organizers say the project will not only historically document the coronavirus pandemic but offer lessons about how the city ought to prepare for future crises.

"We have a responsibility not just to record people's experiences during this time but to learn from them," says Clark, the director of CCOHR. "These narratives will reveal failures and fault lines we have to address, as well as strengths on which we can build, in ensuring that we are more prepared and more resilient in the face of whatever may come next."

The University Archives has also created a website where students, faculty, staff, and alumni can share stories about how the pandemic has affected their lives. Learn more at library.columbia.edu/libraries/cuarchives/covid-19.html.

Ge Li and Ning Zhao

CHEMICAL SCIENCE GETS $21.5M BOOST

Ge Li '94GSAS and Ning Zhao '95GSAS, scientists, entrepreneurs, and philanthropists who earned their PhDs in organic chemistry at Columbia, have donated $21.5 million to the University to advance research and teaching in chemistry.

The couple's gift, which is one of the largest ever to the sciences on the Morningside campus, will fund in perpetuity two new endowed professorships in the chemistry department, an endowed fellowship for graduate students, and an endowed scholarship for Columbia College undergraduates concentrating in chemistry.

Li is the founder, chairman, and CEO of WuXi AppTec, a company that provides research, development, and manufacturing services to the pharmaceutical and biotech industries worldwide. Zhao is a senior vice president, the head of global human resources, and a board member at WuXi AppTec; she is also president of the Ge Li and Ning Zhao Family Foundation.

Li and Zhao credit much of their professional success to Columbia.

"The exceptional education that Ning and I received as students at Columbia University has played an important role in our career and in fostering our passion for doing the right thing for patients," says Li.

Adds Zhao: "I am proud to support the students, faculty, and staff who are dedicated to excellence in chemical science and the pursuit of discoveries that will help address health challenges around the world."

KELLIE JONES NAMED INAUGURAL HANS HOFMANN PROFESSOR OF MODERN ART

With a gift from the family trust of the late abstract-expressionist painter Hans Hofmann (1880–1966), Columbia has established a new endowed chair, the Hans Hofmann Professorship of Modern Art. Kellie Jones, a Columbia art-history professor and renowned scholar of contemporary African-American and African-diaspora art, is the inaugural incumbent.

"Columbia is one of the national leaders in art-historical scholarship, which makes the University a welcome home to the professorship," said Patricia Gallagher, a trustee of the New York–based Renate, Hans, and Maria Hofmann Trust. "We are thrilled Jones will carry on Hans Hofmann's devotion to art of the postwar period."

TOP: COURTESY OF GE LI AND NING ZHAO; BOTTOM: COURTESY OF MACARTHUR FOUNDATION

Preparing food deliveries at the West Side Campaign Against Hunger, a Columbia-supported nonprofit.

COLUMBIA UNDERTAKES FOOD-RELIEF EFFORT

As a result of the coronavirus pandemic, the number of New Yorkers experiencing food insecurity has grown dramatically this year, with an estimated two million city residents now at risk of going hungry. In response, Columbia has launched an effort to heighten awareness of the problem, raise funds, and deploy resources to help feed hungry families in Upper Manhattan. The new Columbia Neighbors Food Relief Fund, for example, has since the spring raised more than $100,000 to support local organizations that provide food relief, including the Community League of the Heights (CLOTH), Cathedral Community Cares, Holyrood Church, Uplift NYC, Cornerstone, and People Against Landlord Abuse and Tenant Exploitation (PA'LANTE). Columbia Dining, meanwhile, prepared one thousand meals per day for local residents over the summer. To learn more, visit neighbors.columbia.edu.

TOP TEACHERS, MENTORS HONORED

This year, eight faculty members and graduate-student instructors received the University's Presidential Teaching Awards. The 2020 recipients are Raymond D. Horton '71GSAS, the Frank R. Lautenberg Professor Emeritus of Ethics and Corporate Governance; Jean E. Howard, the George Delacorte Professor in the Humanities; Bert Huang, the Michael I. Sovern Professor of Law; Stacy Kinirons, an assistant professor of rehabilitation and regenerative medicine; Michael Naft, a graduate teaching fellow and PhD candidate in psychology; Diana Rose Newby, the Marjorie Hope Nicolson Fellow and a PhD candidate in English and comparative literature; Ashley Simone '20GSAS, a recent PhD recipient in classics and a preceptor of literature humanities; and Paola Maria Valenti, a senior lecturer in international and public affairs.

The University also bestowed its Faculty Mentoring Awards, which are given annually to senior faculty who dedicate themselves to the professional development of junior colleagues, to literary scholar Marianne Hirsch, musicologist Ellie Hisama, biologist Darcy Kelley, constitutional-law scholar Gillian Metzger '96LAW, and historian Mae Ngai '98GSAS.

ISERP LAUNCHES CENTER FOR PANDEMIC RESEARCH

Columbia's Institute for Social and Economic Research and Policy (ISERP), directed by historian Matthew Connelly '90CC and sociologist Thomas DiPrete '78GSAS, has launched a new Center for Pandemic Research to support a wide range of scholarly investigations into the social, economic, and cultural ramifications of the COVID-19 crisis, with applications to future pandemics.

"A lot of the most important problems arising out of the pandemic demand social-science research into such topics as how people process public-health information and why the virus is having very different impacts on different communities," says Connelly. "We created this center to support the most important and innovative new research."

A few of the Columbia projects now receiving support from the center include interdisciplinary studies of anti-Chinese sentiment on social media, the pandemic's impact on the lives of service-sector workers, and the challenges faced by journalists in accessing reliable information about the crisis.

A key focus of the new center, Connelly says, is supporting undergraduate and graduate research through seed grants.

TOP: COURTESY OF WEST SIDE CAMPAIGN AGAINST HUNGER; BOTTOM: MAY_CHANIKRAN / SHUTTERSTOCK

LIBRARY ACQUIRES ARCHIVE OF PLAYWRIGHT MYRNA CASAS

Columbia's Rare Book and Manuscript Library has acquired the archive of Puerto Rican playwright Myrna Casas, who is considered one of the most important Latin American dramatists of her generation.

Casas, who is eighty-six and lives in San Juan, is best known for writing politically themed plays like *Absurdos en soledad* (Absurdities in solitude) and *La trampa* (The trap), which explore the lives of women in patriarchal cultures and broader issues of Puerto Rican identity. She is also an influential theater director and producer, having served for many years as artistic director of the prestigious San Juan company Producciones Cisne, which she cofounded in 1965.

"Informed by feminist perspectives and often termed 'surrealist' or 'absurdist,' Casas's work has focused on disrupting gendered rhetorics and expanding the reader's political imagination," says Frances Negrón-Muntaner, a Columbia professor of English and comparative literature and the curator of the Rare Book and Manuscript Library's Latino Arts and Activism Archives.

The Casas archive contains annotated manuscripts of all her plays; directorial notes; photos of theater productions; personal correspondence with Spanish playwright Antonio Buero Vallejo, Puerto Rican playwright Luis Rafael Sánchez, and other writers; and home movies.

Negrón-Muntaner says the archive strengthens the Rare Book and Manuscript Library's already formidable collection of materials related to Puerto Rican arts and literature. "The archive allows researchers to investigate Casas's impact as a precursor to writers such as Rosario Ferré and Manuel Ramos Otero, whose papers are already at Columbia University, and inscribe Casas as part of this rich Caribbean tradition," she says.

ASTROPHYSICIST BRIAN METZGER NAMED 2020 BLAVATNIK LAUREATE

Brian Metzger, a Columbia astrophysicist who is widely credited with explaining how gold and other heavy metals formed in the universe, has received a Blavatnik National Award, the largest unrestricted scientific prize for young researchers in the US. Given annually by the Blavatnik Family Foundation and administered by the New York Academy of Sciences, the award comes with a $250,000 prize.

Metzger, who is thirty-nine, first theorized in 2010 that the heaviest elements on the periodic table were created when neutron stars — the ultra-dense cores of stars that have collapsed in on themselves — merged in cataclysmic events that he dubbed "kilonovae." His theory has since been proven correct to the satisfaction of most astrophysicists. In recent years, space observatories have detected the cosmic fingerprints of several such events that occurred in nearby galaxies billions of years ago and were strong enough to produce huge quantities of gold, platinum, uranium, and other metals.

"Brian Metzger has made multiple and profound theoretical predictions that have proven to be true, something that is rare in the field of astronomy," says Nicholas B. Suntzeff, an astronomer at Texas A&M University and a member of the Blavatnik prize jury. "One of those predictions — how gold was made — is an everyday question that children might ask, but to which a true scientific answer had remained elusive."

FIVE PROFESSORS ELECTED TO NATIONAL ACADEMY OF SCIENCES

The National Academy of Sciences this year elected five Columbia professors into its membership, one of the highest honors that can be accorded to a scientist in the United States. Chosen by their peers in recognition of their outstanding achievements in research, physicist Dmitri Basov, dermatologist and geneticist Angela Christiano, physicist Andrew Millis, biologist Molly Przeworski, and geneticist Lorraine S. Symington will formally join the academy at its 158th annual meeting in April 2021.

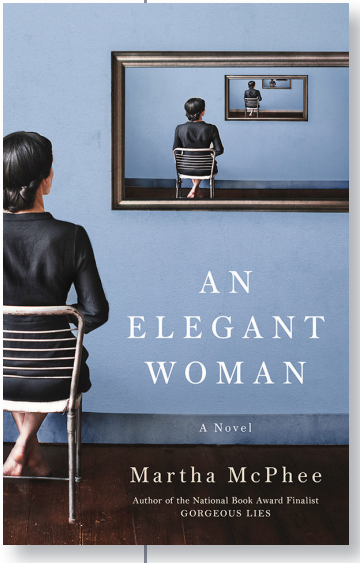
TOP LEFT: COURTESY OF EL VOCERO; TOP RIGHT: COLUMBIA RARE BOOK AND MANUSCRIPT LIBRARY; BOTTOM: COURTESY OF AMERICAN ASTRONOMICAL SOCIETY

An Elegant Woman

By Martha McPhee '94SOA (Scribner)

It's tempting to call any multigenerational family story "sweeping." But truly, no other word applies as well to Martha McPhee's latest novel, *An Elegant Woman*. This epic spans not only most of the twentieth century but also the myriad landscapes of America, from the stately elegance of coastal Maine to the wild plains of Montana to the sun-soaked suburbs of Los Angeles.

McPhee '94SOA, the author of five novels, has long used her own unusual upbringing to steer her work. One of ten children in a blended family, she was raised on a New Jersey farm in a staunchly feminist, intellectual household. Her largely estranged father was *New Yorker* writer John McPhee, her mother was a photographer and publisher, and her stepfather was a proud househusband who had sued his first wife for child support. The sex-role reversal was so notable that it attracted the attention of a documentary film crew in the 1970s, as well as *People* magazine. McPhee's first two novels (one of which, *Gorgeous Lies*, was a finalist for the National Book Award) mine this rich territory. But with her latest, McPhee draws much further into family lore, telling the story of her grandmother, a master of self-invention who willed herself into becoming the titular elegant woman.



McPhee's surrogate in the book is Isadora, a novelist combing through her grandmother's packed basement after her death. Everything that Isadora finds reminds her of a story that Grammy used to tell her and her sisters. There is the china bowl carried by a great-grandmother (a cousin, Grammy liked to emphasize, of James Fenimore Cooper) over the Allegheny Mountains to Ohio after the Civil War. There is the advertisement for the Brown Shoe Company featuring Isadora's grandfather as a young model, which led to a rumor that he was heir to the famous company. There is an old clipping from the society pages, announcing that Grammy had spent the winter at a luxury ski camp in the Adirondacks. The accompanying stories are fables, based on kernels of truth, which have changed with every retelling like an intergenerational game of telephone. As Grammy says, "We create our origin stories, our myths, and we believe them, and then others believe them. And then they are the truth."

But what, really, are the facts? For those, the narrative brings us back to 1910, when Grammy was a young girl — named Thelma and nicknamed Tommy — waiting on a train platform with her mother, Glenna, and her younger sister, Katherine. Glenna has left her cheating husband and is taking her young daughters to Montana, where she hopes to pursue a career as a teacher. But when they arrive, Glenna finds that she can't work and be a mother at the same time. She chooses to work, largely leaving her children to fend for themselves.

Plucky Tommy ends up spending her childhood caring for Katherine — learning how to hunt and trap and begging from prostitutes to ensure that they have enough to eat and that Katherine can stay in school. But Tommy wants more than this hardscrabble existence. And when she and Katherine are grown, she makes a decision that will lead her out of it — even though it means forever changing both her and her sister's lives.

"How is a person made?" the young Katherine asks her sister. "I mean, a life, growing up, understanding who you are and what you want. How does that happen?" For Tommy — a complex, beautifully drawn character — the question is not nearly as difficult as it seems. There is an innate certainty to who she believes she is, and the fact that her

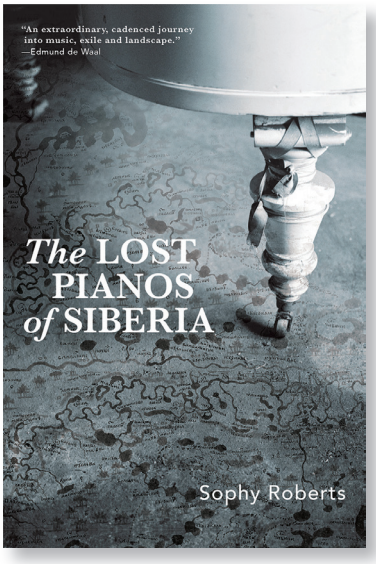
COURTESY OF MARTHA MCPHEE

circumstances don't match that belief is merely an inconvenience. Her ingenuity — or, perhaps more accurately, her audacity — feels uniquely American. Pulling oneself up by one's bootstraps, it seems, is always possible with a few well-told lies. Or as Tommy says, "Sometimes it feels good to pretend … to be the person you desire, to believe you can have what you please, that what you say is the truth."

McPhee is a gifted storyteller, like the fictional Isadora and her grandmother before her, and she weaves together a century's worth of family gossip into a compelling tale. But more than that, her book feels like an homage to the art of gossip itself, to the important place that legends hold in all families. "Every history is a song," Isadora says. "And this is what ours sounds like." — *Rebecca Shapiro*

The Lost Pianos of Siberia

By Sophy Roberts '97JRN (Grove Press)



Sophy Roberts '97JRN is a travel writer with serious cred. She studied English at Oxford, worked as an assistant to author Jessica Mitford, and trained as a journalist at Columbia before becoming a regular contributor to the *Financial Times* and *Condé Nast Traveler*. Now she voyages to remote parts of the world to hunt for disappearing cultures, endangered wildlife, and colorful members of her own species. In her first book, she bags all three.

The Lost Pianos of Siberia tells the story of Roberts's journey into the vast wilderness east of the Ural Mountains in search of a Russian piano with an interesting provenance. "Violent. Cold. Startlingly beautiful. That stately instruments might still exist in such a profoundly enigmatic place as Siberia feels somehow remarkable," writes Roberts.

The quest begins in the summer of 2015 in Mongolia, where Roberts attends a piano recital in a tent "pitched a long way from where the road runs out in the fenceless steppe." Her friend who has organized the evening is frustrated. The young pianist is talented, but the modern baby grand is lacking. The friend leans over and whispers to Roberts, "We must find her one of the lost pianos of Siberia."

Roberts knows little about Siberia and less about pianos, but the idea is catnip to her romantic sensibility and love of adventure. "The more I listened to her play, the more I wondered how an historic piano would sound different in the steppe — an instrument which still resonated with the gentler timbre of the nineteenth century." The quest is implausible, its outcome decidedly uncertain, but as a travel writer Roberts knows that the journey, not the destination, is all. As she says, "If we could do it, it would be good, and a good story. And if we couldn't do it, we would have a story too."

And so the hunt begins, but what starts with whimsy results in a travelogue that is deeply sensitive to the mystical pull of the Siberian landscape, precisely informed by investigative journalism, and rich in Russian history.

As she pursues her quarry, Roberts details Siberia's brutal role as a penal colony, one used not only by the Soviets, who created the forced-labor camps known as the Gulag, but by generations of tsars who banished their political enemies to the frozen wasteland. Siberia was also the site of the violent end of a three-hundred-year-old imperial dynasty when, in 1918, Tsar Nicholas II, his wife, and their five children were murdered there.

We also learn about the importance of the piano in Russian society. How under Catherine the Great, an appreciation for European culture — especially its music — was considered a mark of social standing and respectability. How in the 1840s, Franz Liszt's smashing performances (literally — he broke several instruments on every tour) and the resulting Liszt-omania helped spur Russia's nascent piano-manufacturing industry. Roberts details how some of those pianos eventually found their way to Siberia and how the tsar's political exiles, many of whom were wealthy and privileged, brought music education to the hinterlands.

Roberts's search will entail several trips to Russia, and as she journeys east across Lake Baikal and visits remote towns and villages, we come to understand that the piano is but a minor player in this adventure. What's more compelling is the cast of picaresque characters, both living and historical, who understand the transformative power of music and its essential role in their lives and culture. These men and woman not only cherish their pianos but carry them to the ends of the earth. "How such instruments travelled into the wilderness in the first place are tales of fortitude by governors, exiles and adventurers," says Roberts. "The fact they survive stands as testimony to the human spirit's need for solace."

— *Sally Lee*

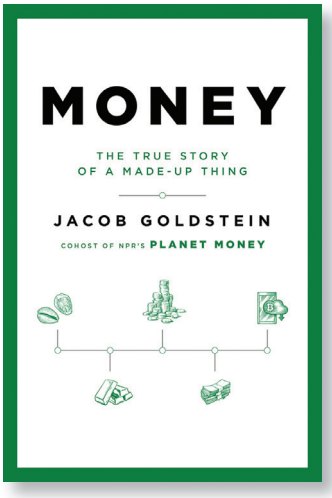
Money: The True Story of a Made-Up Thing

By Jacob Goldstein '04JRN (Hachette)

In the preface of *Money: The True Story of a Made-Up Thing*, Jacob Goldstein '04JRN recalls the impetus for his new book: a 2008 conversation with his aunt, a poet with an MBA. "Money is fiction," she said when he asked where the trillions of dollars that disappeared in that year's financial meltdown had gone. "It was never there in the first place." Her words were a eureka moment for Goldstein; they not only gave birth to his journalistic niche (he is now cohost of NPR's *Planet Money*), but they also formed his foundational beliefs on the topic. Far from existing on a separate, mathematical plane removed from human emotion, money — Goldstein insists — "is fundamentally, unalterably social." It functions because a society collectively agrees to view its money as money, to trust in the reality of this "made-up thing." Given this rather tenuous grounding, it's no surprise that money has taken us on some wild rides over the centuries. In *Money*, Goldstein invites readers along for those adventures, serving as a first-rate tour guide throughout.

In early chapters, Goldstein cherry-picks his way through money's history, sharing quirky facts (in the 1840s and '50s, images of Santa Claus adorned some of the 8,370 varieties of paper currency in the USA) and fresh, informative origin stories. Among the latter is a riveting account of medieval China's economic sophistication. Starting in 105 AD, when a eunuch invented a crude form of paper to keep records in a bustling bureaucracy, China progressed over the next nine-hundred-odd years to a wide use of paper currency. The advent of money in China sparked not just a commercial boom but a social revolution: once the government switched to collecting taxes in legal tender, a populace that had long been forced to weave and plant because taxes were paid in cloth and grain was now free to pursue other vocations. By 1200, Goldstein writes, "China was quite possibly the richest and certainly the most technologically advanced civilization in the world."

Fast-forward to the mid-1400s, and the Chinese peasantry was back to paying taxes in cloth and grain. What happened? Theories vary, but Goldstein fingers the Hongwu emperor, who founded the three-hundred-year Ming dynasty in 1368 and who promoted a radical self-sufficiency based on China's elimination of trade and reversion to



an idealized agrarian past. That he succeeded is (*ahem*) an object lesson in the ephemerality of the "greatness" of any single nation. By the dawn of the twentieth century, the country was among the world's least developed.

Goldstein's discussion of the Great Depression is another eye-opener. He reveals how the relatively obscure economist Irving Fisher's theories about deflation and the instability of the US dollar — problems stemming, in Fisher's view, from the dollar's value being yoked to the weight of gold — guided Franklin Roosevelt in the darkest days of 1933. After temporarily closing the country's banks to stop rampant bank runs, FDR went on the radio and soothed the citizenry with an introductory lesson in banking. He then issued an executive order confiscating gold bullion and most gold coins possessed by any American and threw his support behind legislation that took the US off the gold standard. (The book's elegant clarification of this concept is a gift to readers.) Even as his budget director decried "the end of Western civilization," Roosevelt never wavered — and history has vindicated him. "In country after country, the economy started to improve after the government gave up on the gold standard," notes Goldstein.

The book offers three different scenarios for money's future, perhaps the most striking of which is "modern monetary theory" (MMT). As espoused by the economist Stephanie Kelton, MMT posits that a government that simply creates more of its own money need not fear overspending (another liberating effect of chucking the gold standard). In the unlikely event that flooding the economy with new money creates hyperinflation, the antidote is equally simple: raise taxes to reduce the money supply. Kelton has attracted acolytes as diverse as Bernie Sanders and tax-averse tycoons.

Goldstein clearly thinks that MMT may be an idea whose time has come, arguing that our current methods of gathering and distributing tax revenues are "undemocratic." In an environment where the words "taxes" and "deficits" are infinitely more fraught even than "money," though, getting consensus on the long-term viability of Kelton's approach might be the heaviest lift of all. But MMT may have gotten its first real trial run in March when Congress passed the $2 trillion CARES Act, giving the book a very timely and thought-provoking end.

— Lorraine Glennon

MELINDA FAWVER

READING LIST

New and noteworthy releases

TROUBLE THE SAINTS
By Alaya Dawn Johnson '04CC
Phyllis LeBlanc, a Black woman living in Harlem on the cusp of World War II, has two distinctive qualities that earn her a job as an assassin for a notorious mob boss: she has superhuman knife skills, and she is sufficiently light-skinned to pass for white. But when LeBlanc reconnects with a lost love, an Indian-American man working as a police informant, she has to make difficult choices about the kind of life she wants to live. Alaya Dawn Johnson's powerful novel is a period piece imbued with fantasy and magical realism. But her vivid portrayal of the ugliness and violence of racism is all too relevant to the real world of today.

HELLO DARKNESS, MY OLD FRIEND *By Sanford D. Greenberg '62CC, '67BUS*
As a Columbia junior, Sanford D. Greenberg — a scholarship student from a working-class Buffalo family — thought he'd already overcome his share of obstacles. But then a bout with glaucoma left him blind. Greenberg was ready to give up; but with grit, determination, and some help from his dear friend Art Garfunkel '65CC, he went on to earn graduate degrees at Harvard and Oxford, serve as a White House Fellow under Lyndon Johnson, and build a successful career in business and philanthropy. In his inspiring new memoir — with an introduction by Garfunkel and a foreword by Ruth Bader Ginsburg '59LAW, '94HON — Greenberg recounts stories from his full and fascinating life.

DADDY *By Emma Cline '13SOA* Emma Cline's mega-best-selling debut, *The Girls*, was about young women in search of a father figure, which they found in a Manson Family–like cult. Now, in her new book of short stories, Cline turns her lens on fathers themselves. Many of the stories are narrated by fathers — a formerly abusive man hosting his grown children for an awkward holiday, a distracted and estranged dad picking up his entitled son after he is kicked out of boarding school, a young farm worker watching his relationship with his pregnant girlfriend fall apart. Cline again proves herself a keen observer of society and of families, and a master of gorgeous, evocative, surprising prose.

CONJURE WOMEN
By Afia Atakora '16SOA
It's the aftermath of the Civil War, and life hasn't changed much for a group of newly freed slaves on an isolated plantation deep in the rural South — except that their cruel master, Charles, has disappeared, leaving behind his daughter, Varina, who cowers in fear of retaliation from the slaves. Miss May Belle, the local midwife and healer, has been grooming her daughter, Rue, to follow in her footsteps. But then Rue helps with the birth of a "cursed" child with haunted eyes, and soon thereafter a mysterious disease comes to the town. Like two of her three protagonists — May Belle, Rue, and Varina — debut novelist Afia Atakora is a kind of conjure woman herself, crafting characters so vibrant and fully formed that it's hard to believe they aren't real.

HOMELAND ELEGIES
By Ayad Akhtar '02SOA
In his second novel, the Pulitzer Prize–winning playwright of *Disgraced* and *Junk* returns to many of the themes that he has explored in the theater — cultural and national identity, religion and discrimination, and greed. But this very personal work hews much closer to Ayad Akhtar's own life, exploring the relationship between a venerated Pakistani-American playwright and his often reckless and increasingly disillusioned immigrant father as they try to navigate Trump's America.

JUST US *By Claudia Rankine '93SOA* America is in the middle of a much-needed reckoning on race, and Claudia Rankine's breathtaking, genre-bending book couldn't be more timely. Combining essays, poetry, and images, *Just Us* is a deeply personal account of the micro- (and macro-) aggressions that Rankine faces as a Black woman every day and a rumination on both white privilege and the disturbing rise of white supremacy. As the subtitle ("An American Conversation") suggests, this is more than just a book about racism; it's an invitation to participate in an uncomfortable but vital conversation about a critical moment in history.

Raise Your Voice

Voting is a cherished American right, but more than 40 percent of eligible adults don't do it. In her new book, *Thank You for Voting*, lawyer and journalist Erin Geiger Smith '09JRN writes about how we got here and what the future might hold.

Columbia Magazine: How did you become interested in voting rights?
Erin Geiger Smith: I studied voting rights in law school and have reported on voting as a journalist. But after the 2016 presidential election, I was struck not only by how polarized our country was but by how many people weren't participating at all. And every age group is voting less than the one before it. I grew up in a small town in Texas and now live in New York City, which are at opposite ends of the political spectrum. But in both places, I could see that people yearned for representation. I wanted to know why so few people were showing up at the polls.

CM: Why do you think so many Americans choose not to vote?
EGS: I don't think it's apathy. I think that if you ask most people about the issues that concern them, they cite things like the economy and health care and education, all of which are inherently political. But we as a society don't teach the mechanics of the voting process. It's a complicated, often intimidating system that varies widely from state to state. If it's never been a part of your life, it's hard to make it a habit.

CM: What about voter suppression?
EGS: It's certainly an issue. There are a number of laws that make it more difficult for segments of the population to vote, most of which have a disproportionate impact on minority voters. After a 2013 Supreme Court decision struck down parts of the Voting Rights Act, several states were emboldened to add voting restrictions. These included requiring voter ID, limiting early-voting periods, and ending same-day registration. In recent years, states have become aggressive about "purging" their voter rolls, or eliminating voters who didn't vote in the previous few elections. We've also seen states drastically reduce the number of polling sites.

CM: The world has changed significantly since you submitted your manuscript. How do you think the COVID-19 pandemic will affect voter turnout in the 2020 election?
EGS: Anyone who says they know exactly what's going to happen is lying. Obviously, more people are going to vote by mail than ever before. In general, states that have universal vote-by-mail have a higher turnout. But that doesn't necessarily mean that the trend will extend to all states that encourage mail-in voting in this election. States are having to implement new systems, deal with a whole lot more paper, and educate voters without sufficient support from the federal government. We don't know how it will shake out.

CM: Many politicians, including President Trump, have expressed concern about voter fraud, particularly if vote-by-mail becomes more common. Is that a legitimate concern?
EGS: No. Voter fraud is extremely rare in all cases, including vote-by-mail. States have safeguards, such as printing ballots on specifically weighted paper and including unique barcodes, so it would be almost impossible to orchestrate fraud on a large scale. Voter fraud is also a felony, punishable by jail time or deportation for illegal immigrants. So the risk is very high for a very small payoff.

CM: Is there any indication that vote-by-mail favors one party?
EGS: I think it's difficult to say in a nationwide election. Several of the states that already have universal vote-by-mail lean Democratic, which I think has led to some of the panic on the Republican side. But that's not absolute: Utah is a reliably red state that uses universal vote-by-mail. There's no evidence right now that the process favors one party or another.

CM: What would you say to someone in a non-swing state who thinks her vote doesn't matter?
EGS: First of all, I would tell her to remember that the presidential race is not the only thing on the ballot. If we've learned nothing else from the pandemic, it's that the lion's share of governing in America takes place at the state and local levels. I would remind people that states can shift politically; there are states in play in this election that were not in play in 2016. And finally, even if the outcome in a state is a total certainty, I think that it does matter how many people in the losing party vote. It tells the winning candidate where that state stands. If you don't vote for your candidate of choice, it takes away a bargaining chip.

— Rebecca Shapiro

JONNY RUZZO

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PERSONALS

BRIGHT, multifaceted Columbia alumnus, 59, seeks woman for LTR. 516-662-4722.

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Wheel of Justice

WHAT IS IT?
Duplicate of an automobile wheel at the center of a landmark 1916 court case heard by Judge Benjamin Cardozo 1889CC, 1890GSAS, 1915HON (right)

WHERE CAN I FIND IT?
Arthur W. Diamond Law Library, fourth floor of Jerome L. Greene Hall

An automobile manufacturer, A, sells a car to a retail dealer, B. B sells the car to a customer, C, who is injured when a wheel, made of defective wood, collapses. C sues A for negligence.

This was the crux of *MacPherson v. Buick Motor Co.*, heard by the New York Court of Appeals in 1916 and still taught in law classes today. "The question to be determined," Judge Benjamin Cardozo 1889CC, 1890GSAS, 1915HON wrote in the majority opinion, "is whether the defendant [A] owed a duty of care and vigilance to any one but the immediate purchaser [B]."

Cardozo found that the answer was yes: though Buick had purchased the wheel from another manufacturer and had no contractual relationship, or "privity," with the plaintiff [C], it was still responsible for ensuring the safety of its product. Cardozo cited the 1852 New York case *Thomas v. Winchester*, in which a wholesaler sold a falsely labeled bottle of poison to a druggist, who sold it to a local retailer, who sold it to a patient. Though the written contract was between the wholesaler and the druggist, the court found that the wholesaler was liable for the harm to the patient.

Buick, Cardozo wrote, was "not at liberty to put the finished product on the market without subjecting the component parts to ordinary and simple tests."

Peter Strauss, professor emeritus of law at Columbia, explains that the decision marked a sea change in product-liability law. "The law at the time held that carriage wheels — and this wheel looks a lot like a carriage wheel — were an ordinary item made by artisans, and it was up to the purchaser to judge their soundness," says Strauss. "The artisan would not be responsible for any ordinary lack of care in making them."

Strauss notes that Cardozo, in his reasoning, used what the great Columbia legal scholar Karl Llewellyn would call the "situation sense" — accounting for a new reality in which products were now mass-produced in a complicated marketplace. "Llewellyn remarked that if you just looked at the facts — the wheel had been painted by the supplier, preventing Buick from identifying the defective wood, and MacPherson had used the car for a year to haul heavy stones — the decision was unfair to Buick. But if you paid attention to the 'situation sense,' as Cardozo had — the transition from one kind of economy to another — it was perfect."

The lone dissent came from Chief Judge Willard Bartlett 1869CC, who retired later that year. Cardozo was elected chief judge in 1926, and in 1932 President Herbert Hoover appointed him to the US Supreme Court.

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