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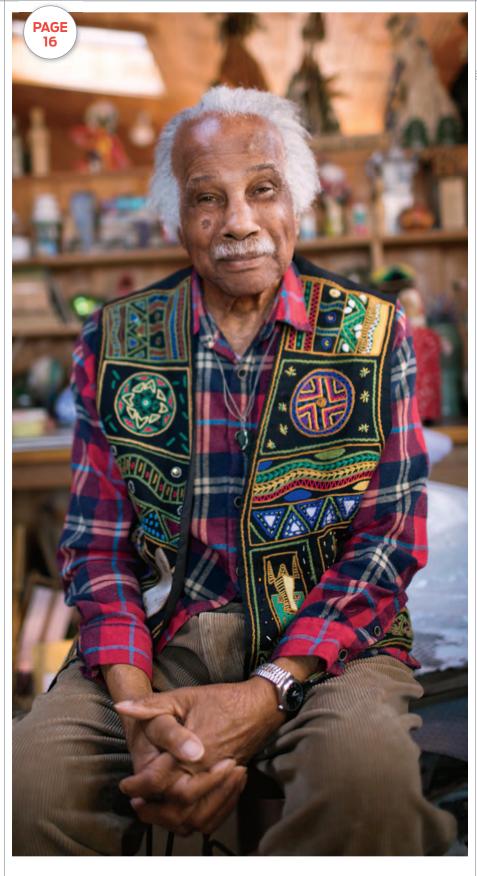
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FALL 2021



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MATT COSB¹

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TOP



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Carlos A. Cuevas '05CC, '12SIPA, '12PH 1754 SOCIETY MEMBER

Carlos's grandfather, Augusto Gomez '33PHRM, was able to attend the Columbia College of Pharmaceutical Sciences when his tuition was co-sponsored by his employers, two Columbia alumni.

COLLEGA

Koluni

Carrying on the Tradition

For Carlos, ties to Columbia run deep. Thanks to the generosity of the Columbia community, both his maternal grandfather and paternal grandmother were able to attend the University and pursue opportunities that would provide better lives for their families. Through his work in health care and generosity in naming Columbia as a beneficiary of his retirement plans, Carlos carries on his family's tradition of serving and supporting their community.

Read Carlos's full giving story at giving.columbia.edu/carlos

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COLUMBIA



COLUMBIANS ON THE CASE

Thank you for your insightful article "The Columbia Guide to the Pentagon Papers Case" (Spring/Summer 2021). In this era of fake news, it's a good reminder of the important role that dedicated professional journalists play in our democracy.

I was a summer bureau correspondent in Washington for *Newsweek* on the Pentagon desk (the regular correspondent was on vacation) when the Pentagon Papers case hit the district court in DC. It became my job and my privilege to cover the lower-court hearings before the case reached the Supreme Court.

The district judge, Gerhard Gesell, wasted no time ruling against the government and kicked it upstairs. Only an hour or two later, a threejudge panel of the court of appeals took it on. During the hearing, one of the justices asked, "What's the deadline for stopping publication for tomorrow?" The *Post* answered that it was about 9:30 p.m.; after that, the paper would be in print and distributed to the public.

The three justices seemed divided: one clearly didn't support the government's position, one clearly did, and the third wasn't tipping his hand. After they went into chambers, we all waited around for hours, speculating about how they'd rule. It was about 10 p.m. before they reappeared with their ruling, a carefully crafted compromise: they gave the government a temporary injunction, but by waiting to announce it until after the press deadline, they allowed the paper to publish a second day's worth of the story.

During that time, *Newsweek* — which went to press on Saturday — went from sleepy summer-vacation mode to a hotbed of activity. Senior correspondents came back to work the phones. Bureau chief Mel Elfin reminded us that we still had other stories to finish, but this one was on everyone's mind.

When the ruling came down, everyone was jubilant. And I saw up close how professional journalists see their role: get the facts out and let the truth carry the day.

Political leaders who consider their own power more important than truth will restrict, rewrite, and lie to affect the public's perception of what is really happening. Professional journalists can — and must — confront what's false with the facts. To me, that's also what makes the Pentagon Papers case so important today.

Rod MacDonald '73LAW Delray Beach, FL

I worked at the Times in 1971 as a typesetter and a member of the International Typographical Union (ITU). I was personally involved in setting headlines by hand (the type was too large to be set by machine). But shortly before the Pentagon Papers were published, the Times actually moved about six Linotype machines from the fourth-floor composing room to another floor. They must have told ITU president Bertram Powers something about the project.

> Wolf Manowski '65GS Daly City, CA

PULITZER PRIDE

FEEDBACK



In June, the Pulitzer Prize Board, under the auspices of Columbia. awarded a special citation to Darnella Frazier, the teenager who recorded the murder of George Floyd on her phone. Seldom have I been prouder to be a Columbia graduate. Somewhere the spirit of John Hohenberg, my journalism professor and the Pulitzer administrator for many years, must be cheering.

> William C. Treon '61JRN Phoenix, AZ

FEEDBACK

Your article on the Pentagon Papers case and Max Frankel's pivotal role in it was excellent and highly informative. The statement by Max Frankel that "no other attempt at prior restraint has gotten very far since then" is, unfortunately, incorrect.

In 1979 the government succeeded in enjoining the *Progressive* magazine, based in Madison, Wisconsin, from publishing an article on how to make an H-bomb. The purpose of the article was to demonstrate that claims of secrecy were overextended and that there were no secrets about the construction of a hydrogen bomb. The injunction issued against publication of the article was in effect for six months.

As US attorney for the Western District of Wisconsin, I originally signed on to the government's efforts at obtaining an injunction against publication. After reading the article, however, it was clear to me that claims of secrecy were flatout wrong and that much of what was claimed to be restricted data was in fact public knowledge. From that point on, I did not participate in the litigation, and I made every effort within the Justice Department to abandon the injunction. These efforts were unsuccessful. but publication of the article by a different journal ultimately led to a withdrawal of the injunction.

Frank Tuerkheimer '60CC Madison, WI

In the Pentagon Papers article in the latest *Columbia Magazine*, you forgot to note that Max Frankel was the editor in chief of the *Columbia Daily Spectator* in his senior year, the outstanding leader of a group of many future famous journalists. **N. David Charkes '52CC** Collegeville, PA



Max Frankel '52CC as editor in chief of the *Spectator*.

I appreciated your article on the Pentagon Papers a great deal, and I would like to add another link in the Columbia chain of interaction with them. In 1968-69, the Army paid for my senior-year tuition and room and board at Columbia Nursing. In return, I agreed to give two years of service, never anticipating that I would go to Vietnam. But in June 1971, I was a captain in the Army Nurse Corps, stationed at the 24th Evacuation Hospital in Long Binh. My parents had given me a Sunday Times subscription as a taste of home.

When the Pentagon Papers edition arrived, it was passed first among the staff, then bed to bed by the patients. Everyone read brief excerpts; it was all we could handle. Nothing surprised us. It confirmed the pathology in which we were embedded — and, I would suggest, what many veterans continue to deal with.

Mary Reynolds Powell '69NRS Cleveland, OH

"The Columbia Guide to the Pentagon Papers Case" fails to mention that two key editors, Allan M. Siegal and Gerald Gold, who holed up in the New York Hilton to polish the papers for publication, team-taught copyediting at Columbia Journalism School.

Siegal recently told the *Times*, "I suggested the Hilton because ... I had the distinct impression you could walk through the lobby leading a camel on a tether and nobody would take notice." Times publisher Arthur Ochs "Punch" Sulzberger Sr. opined of samples of the coverage, "It's too long. This is going to bore people out of their minds. Cut it in half!" Neil Sheehan, the principal author of the coverage, later told an interviewer, "Jesus Christ, Jerry Gold and Al Siegal were furious."

Having been the target of Gold and Siegal's well-aimed wrath in the classroom, I could have told the publisher that he was not on the right track.

> Harold W. Fuson Jr. '68JRN Encinitas, CA

LIONS ON THE POTOMAC

Your "Alumni Go to Washington" page, listing political appointees in the Biden administration, omitted my name (Network, Spring/ Summer 2021). I am chief of staff of fossil energy at the Department of Energy and earned a master's degree in climate and society from the Graduate School of Arts and Sciences in 2010.

I would also like to point out that nearly all the appointees you included are SIPA or law alums. I would gently suggest looking beyond those two schools for accomplishments in the future — I'm sure I was not the only one who was missed. **Shuchi Talati '10GSAS** Washington, DC

We invite any alumni whom we inadvertently left out to send us your name, title, and year of graduation at feedback@columbia.edu. Many already have, and you can read the ever-growing list at magazine.columbia.edu /article/alumni-go-washington.

THREE DEGREES OF MEAD

In "Let There Be Light," your article about the "shining intellectual tradition" of the University Seminars (Winter 2020–21), one detail was missing. Margaret Mead earned her undergraduate degree at Barnard ('23BC) before earning her '28GSAS and '64HON as noted.

> Lori E. Gold '78BC Hollywood, FL

QUESTIONS? COMMENTS?

E-MAIL US AT: feedback@columbia.edu Letters may be edited for brevity and clarity.

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"It was very important to me to give back to Columbia and to help others have the same opportunity I had." Milton Edelin '54CC, '57GSAPP

'My dream is to help somebody like me, any kid who has the grades but not the resources. I want others to feel a part of somewhere as large and wonderful as Columbia." Marie Serrano '77SW



"I feel grateful knowing how my life has been changed because of Columbia. I will never forget being a student on financial aid."

"I believe in bringing Columbians

their drive to do whatever they

along with me in life, cheering on

Brandon Martinez Gonzalez '16CC

"I believe education is the great equalizer. So when I give to Columbia, I know my dollars will benefit society."



Paul Chiu '85SEAS, '94BUS

"My hope is that my gifts expand access to the study of journalism to those who couldn't otherwise afford it."



Dorothy Gilliam '61JRN

"There are students out there who don't yet know how great they can be. We can help them know."



Keith Goggin '91JRN



Lauren Dwyer '11CC, '16BUS

want to do."

COLLEGE Walk

NOTES FROM 116TH STREET AND BEYOND



Strudel for the People A fabled neighborhood fixture emerges from lockdown

n a recent sunny weekday, the Hungarian Pastry Shop, like the marvelous white peacock in the garden of the Cathedral of St. John the Divine across the street, flaunted its feathers. At the sidewalk tables, gray-haired regulars read newspapers and magazines, students in Columbia T-shirts stared at stickerplastered laptops or at the pages of canonical novels, and sparrows hopped around in search of crumbs. There were berets and bike helmets, The Trial and Ulysses, bulldogs and poodles. Inside, pies and pastries of lemon, chocolate, and raspberry beckoned from the glass case. At the tables, a woman wiped her eyes as she confided in a friend; a young man read a book on Northern opposition to abolition; and two older, tweedy saxophonists discussed which jazz clubs had reopened.

It was a remarkable juxtaposition with the scene a year earlier, when the sword of COVID-19 hung over every café in town. Back then, Philip Binioris, proprietor of the Hungarian, was facing the grim reality that this cherished spot, social hub and workspace for generations of Columbians, was in danger of fading away as quietly as it had opened nearly sixty years before, when the *Columbia Daily Spectator* announced the new establishment in a tiny ad on the back page: HUNGARIAN PASTRY SHOP, 1030 AMSTERDAM AVE. (NEAR 111TH ST.), HOME BAKING, COFFEE, ESPRESSO.

It was 1961, and even with its ideal location there was nothing to suggest that the place would outlast nearly all other coffeehouses then in the city. Run by a Hungarian immigrant named Joseph Vekony, the shop, located on the ground floor of a six-story 1910 building facing the garden of St. John's, quickly drew professors, students, artists, writers, locals, tourists, hospital workers, and, of course, the occasional scruffy café intellectual hunched over an esoteric text.

For reasons unknown, "expresso" replaced "espresso" in the ad copy starting in 1963, and by the early 1970s the blurbs promised "Good Coffee, Good Pastry, Good Atmosphere." (*Spectator* food critics have at least agreed about the atmosphere.) In 1976, Vekony sold the business to Binioris's father, Peter; Theodore Magos, an architect; and artist Yanni Posnakoff. The new owners, all Greek immigrants with high regard for the Hungarian pastry tradition, expanded the seating area and tweaked the ad copy (ENJOY INTEL-LECTUAL STIMULATION IN A JOYOUS AMBIANCE INSPIRED BY THE TIME-LESS QUALITIES OF THE EUROPEAN TRADITION). Posnakoff, a devotee of Greek-Armenian mystic George

Gurdjieff, painted eleven angels on the walls inside and out, each paired with a word signifying an attribute of God: honesty, tolerance, gentleness, generosity. Next to the front

window rests a painting of a larger angel, with the words *Expect a Miracle Today*.

Over the years, the Hungarian has become a popular venue for first dates, marriage proposals, breakups, job interviews, scholarly disputes, screenplay collaborations, sketching, scribbling, studying, crosswording, and old-fashioned reading. Philip Binioris, who is thirty-five and grew up around the corner, began working at the shop after school in seventh grade. He remembers when there was a pool

table in the basement and how, as a teen, he idolized the Columbia grad students who came there to play. By the time he took over the business, in 2012, he was sensitive to the blend of ingredients

that make for a welcoming milieu. "I had so many wonderful memories of the place — and so many loyal and valuable customers had such wonderful memories — that my biggest plan was to not mess it up," he says.

This meant continuing the policy of no music, no Wi-Fi, no outlets, dim lighting, and free coffee refills, as well as preserving the menu, the recipes, and the angels. The clientele, too, remained constant: the retired social worker who met his first boyfriend at the Hungarian in 1978 or the St. John's gardener who first visited the shop in 1969 ("There were a lot of elderly men playing chess," she recalls). Writer Jay

Neugeboren '59CC, who lives nearby, was there at the beginning. "It was like a sixties coffeehouse without the folk singing," he says. "It has not changed much at all."

One of the few evolving features of the Hungarian under the younger Binioris's management has been playing out on the front walls, which boast framed dust jackets of books written in part



tables — titles by Nathan Englander, Ta-Nehisi Coates, Julie Otsuka '99SOA, Rivka

at the shop's small

Galchen '06SOA, and many others. "My dad and his partners did an amazing job bringing people in — making connections beyond the counter and really just being

part of a community," says Binioris. "There's no pretense to the place. It's just here. We open the door and hope that people come in, and we try to take care of them." That care was reciprocated

during the bleakest days of the lockdown, when people

showed up to get their strudel and tortes to go, waiting in lines that stretched around the corner. "During the pandemic I realized the value of that relationship more and more," says Binioris. "It's not just a cup of coffee and a pastry. There's a human relationship, and that's really a beautiful thing."

- Paul Hond

THE SHORT LIST

NOVE Support lifesaving cancer research by signing up for the **2021 Your Velocity** event, a fundraiser for Columbia University Irving Medical Center. This year, participants are invited to cycle, run, walk, hike, dance, or do any other physical activity from any location. October 3. *velocityride.org*

REFLECT *The Way We Remember*, a new exhibition at the Wallach Art Gallery, explores public monuments and their connections to memory and trauma. Coinciding with the twentieth anniversary of 9/11, the show also ponders how to memorialize the lives lost to COVID-19. September 10–November 14. *wallach.columbia.edu*

TASTE There's a new dining hall at the Jerome L. Greene Science Center. Developed by celebrity chef Franklin Becker, the **Manhattanville Market** has four fast-casual restaurants serving salads, Mediterranean cuisine, Southern biscuit sandwiches, and pizza. Open daily from 11 a.m. to 8 p.m. *manhattanvillemarket.com*

READ Columbia Global Reports, which publishes nonfiction books on timely topics, has several new releases planned this fall, including *In the Camps: China's High-Tech Penal Colony*, by anthropologist Darren Byler '09GSAS. globalreports.columbia.edu

ROAR Missed college sports? The Columbia Lions return for their first post-shutdown season this fall. Reserve your seat at a football or basketball game, or cheer on student athletes while watching televised games from home. gocolumbialions.com

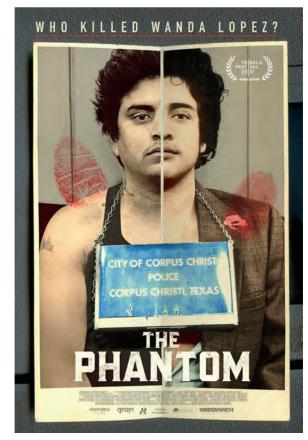
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CREAM PUFF

COLLEGE WALK



Movie poster for The Phantom, based on the book The Wrong Carlos.

No Margin for Error

A new documentary, *The Phantom*, highlights a Columbia Law School investigation into a miscarriage of justice

n the night of February 4, 1983, in Corpus Christi, Texas, a twentyfour-year-old single mother, Wanda Lopez, called 911 from the gas station where she worked. Terrified, she told the dispatcher that a man was standing inside with a knife. Seconds later, she screamed.

Police arrived at the scene and found Lopez dying from multiple stab wounds. A gas-station customer who had witnessed the struggle gave a description of the attacker. Officers raced after a man whom other witnesses had seen running nearby. When police found the man, Carlos DeLuna, hiding under a pickup truck, they arrested him and called off the search for the killer.

At his trial, twenty-oneyear-old DeLuna insisted that he did not kill Lopez. But he said he knew who did: a man who looked like him and had the same first name — Carlos Hernandez. The lead prosecutor told the jury that this other Carlos was a "phantom" that DeLuna had made up. After a short deliberation, the jury convicted DeLuna of murder and soon thereafter sentenced him to death. He maintained his innocence until the state of Texas executed him in 1989.

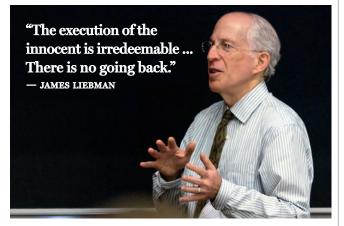
More than a decade later, in 2004, Columbia Law professor James Liebman began looking into the case. An expert on the death penalty, Liebman has published studies showing that most capital cases are overturned because of errors. Liebman wanted to focus on a single case to show these errors at work, and so he turned his attention to Texas, the state with the most executions in the country. He asked one of his students, Douglas Jaffe '05LAW, to write a paper on a Texas capital-punishment case that had relied on testimony from a single evewitness. Jaffe came across the DeLuna case.

After reading Jaffe's paper, Liebman ordered a transcript of the trial. Noting that DeLuna had named Carlos Hernandez as the murderer, Liebman asked an investigator in Texas to see if he could find a Carlos Hernandez in Corpus Christi. In a single day, the investigator discovered that Hernandez existed — and had a record of gas-station robberies and knife assaults against young women.

Liebman and a team of law students and private investigators established the Columbia DeLuna Project, which interviewed more than a hundred witnesses and sifted through court documents and crime-scene photographs. The project found, among other things, that police had known that Carlos Hernandez existed and had arrested him multiple times. Yet this information was not presented to the jury.

"This was the least attendedto case you could imagine," says Liebman. "Why? Because both the victim and the defendant were low-income people of color and the defendant had very poor legal counsel. There was no pressure to get it right."

Over a span of ten years, twelve students worked with Liebman on the DeLuna Project, and in 2014, Liebman, with the project's last five students, coauthored the book *The Wrong Carlos*.



They also built a website to make public all the evidence in the case. "We put everything out there to let people decide for themselves," says Liebman.

This summer, the Tribeca Film Festival premiered *The Phantom*, a documentary about DeLuna's wrongful execution and Liebman's investigation. Director Patrick Forbes decided to make the film after reading an article about Liebman's work at Columbia.

The DeLuna Project shaped the legal careers of many of Liebman's former students. "That case was a light that guided me," says Shawn Crowley '11LAW, a former federal prosecutor now in private practice. "I know bad, bad things can happen when you're not paying attention to the accuracy of the so-called facts. As a prosecutor, you shouldn't be trying to win. You should be trying to bring justice."

"Capital punishment is an area where you need to be perfect, but humans are not perfect," says Andrew Markquart '12LAW, now a staff attorney at the Great North Innocence Project in Minneapolis. With the release of *The Phantom*, the New York–based Innocence Project launched a petition demanding President Biden commute the sentences of the forty-six people on federal death row.

"This film arrives when the nation is rethinking the death penalty in a way it hasn't done at the national level for decades," says Liebman. "Because of the DeLuna case, no one can say that the state has not killed an innocent person. And the execution of the innocent is irredeemable. After that happens, you can't do anything. There is no going back." — *Rebecca Kelliher* '13BC, '21JRN

SHUTTERSTOCK

Mayoral Musings Columbians around the country fight for city hall

hat's more Columbian than the mayoralty? The very first graduate of the newly reconstituted Columbia College (formerly King's College), DeWitt Clinton 1786CC, became mayor of New York in 1803 (he established the city's public-school system), and in 1886, Abram Stevens Hewitt 1842CC, 1887HON, a five-term congressman, defeated New York mayoral hopefuls Henry George and former state assemblyman Theodore Roosevelt 1899HON. Five other Columbians have presided over New York's

MAYOR

city hall,

and many more have led municipalities across the country,

from St. Paul to St. Louis, Trenton to Dallas, San Antonio to San Diego, Oakland to Seattle.

Today, Columbia graduates can be found leading US cities from coast to coast. Among them: Eric Garcetti '92CC, '95SIPA in Los Angeles; Daniella Levine Cava '82SW, '83LAW in Miami-Dade County; Steven Fulop '06SIPA in Jersey City; Tim Kelly '89CC in Chattanooga; André Sayegh '00SIPA in Paterson, New Jersey; Drew Combs '98CC in Menlo Park, California; and Stephen Schewel '74GSAS in Durham, North Carolina.

On campus, former Philadelphia mayor Michael Nutter is the David N. Dinkins Professor of Professional Practice in Urban and Public Affairs at SIPA, his chair honoring the first Black mayor of New York, who served on the SIPA faculty for more than twenty-five years. And in this year's New York mayoral race, candidates are vying to replace Bill de Blasio '87SIPA.

John Lindsay, who held the office from 1966 to 1973, called the New York mayoralty "the second-toughest job in America." That was never truer than in 1898, when the independent cities of New York

(Manhattan) and Brooklyn, plus Staten Island, the Bronx, and parts of Queens, were consolidated into one giant metropolis. The first mayor to lead the new "Greater New York" was Robert Anderson Van Wyck 1872CC, a Tammany Hall favorite whose political career flamed out in 1901 in a stock scandal. Van Wyck's successor was another Columbian — Seth Low 1870CC, 1914HON, the president of Columbia, who had also been mayor of Brooklyn in the 1880s.

Though competent and clean, Low served just two years as New York City mayor. But his legacy was already secure: in 1895, as Columbia president, he had personally donated a million dollars to construct Low Memorial Library, in honor of his father. That building would later become the administrative center the domed and columned city hall — of the University he loved. — *Paul Hond*

COLLEGE WALK

West End Blues

The Louis Armstrong Jazz Performance Program turns twenty



he combo swung hard under the cool vault of St. Paul's Chapel. It was 2002, and the musicians – students in the Jazz Performance Program — were warming up the crowd before a talk sponsored by Columbia's Center for Jazz Studies.

Chris Washburne '99GSAS, a young music professor who had founded the program the year before, listened appreciatively from the sidelines. When Columbia had offered him his job, he'd had one condition: that he be allowed to start a program that would give undergraduates an opportunity to explore jazz improvisation and composition for academic credit. He knew that among students of philosophy, literature, and engineering were talented trumpeters, pianists, and singers, and it only seemed right that a university abutting Harlem, the jazz hub of New York, should provide instruction in America's premier art form.

Inside St. Paul's, Washburne gave a signal and the band wrapped up. The audience applauded, and as the professor walked down the center aisle, an elderly woman in a black newsboy cap grabbed his arm. "Are those your students?" she said. "They're fantastic."

The woman was Phoebe Jacobs, executive vice president of the Louis Armstrong Educational Foundation and one-time publicist for the seminal musician. As executor of Armstrong's estate, Jacobs, whose other clients included Ella Fitzgerald and Sarah Vaughan, was committed to funding jazz education and had helped establish Columbia's Center for Jazz Studies in 1993. Now she offered the Armstrong Foundation's support for Washburne's year-old curriculum. In tribute, Washburne changed the name to the Louis Armstrong Jazz Performance Program (LAJPP).

Today the program has 130 students. Five percent are music majors.

"I wanted to create something that catered specifically to students who are intellectually engaged in the world and have many interests besides jazz," says Washburne, a trombonist and composer who has played with acts as varied as the Duke Ellington Orchestra, Tito Puente '99HON, Justin Timberlake, David Byrne, and Björk. "Most LAJPP students don't necessarily want to become professional musicians but want to play jazz or develop their skills. I write a lot of letters of recommendation for people going on to law school and medical school."

There are eighteen ensembles in the LAJPP, from small combos to a big band. In recent years, Washburne has seen fewer trumpeters and saxophonists and more pianists and guitarists. "Music programs in public high schools have been cut since the 1980s, resulting in a shortage of brass and woodwind players in the US," he says. "We're experiencing that, and every other jazz program is too."

It wasn't always thus. Growing up in the 1970s in Bath, Ohio, Washburne had no choice but to pick up an axe. "In fifth grade everybody was given an instrument," he says. "I wanted to play trumpet, but I couldn't get it to make a sound. I could make a sound with the trombone."

Washburne studied music at the University of Wisconsin and got his master's at New England Conservatory. Wanting to extend his studies of Latin music, particularly Brazilian forms, he entered Columbia's PhD program in ethnomusicology in 1989 and discovered that Columbia, which at the time offered no jazz performance classes for credit, harbored many jazz musicians in the humanities and sciences. Once he became a professor, he dedicated himself to bringing this complex and highly individualistic music into the wider academic fold. In 2003, he lobbied successfully to incorporate jazz studies into the Core Curriculum, instituting Satch and Bird alongside Bach and Berlioz.

Today the LAJPP has fourteen part-time faculty members and offers classes in arranging, improvisation, and jazz history. Some students who majored in other fields have made careers in music, like pianist and singer Peter Cincotti, pianist Ben Rosenblum '16CC, saxophonist Daro Behroozi '12CC, accordionist Sam Reider '11CC, and drummer Craig Weinrib '10CC.

The Louis Armstrong Educational Foundation, funded during his lifetime by Armstrong and his wife, Lucille, supports two guest artists a year to give LAJPP master classes, a roster that has featured reed player Don Byron, saxophonist Jimmy Heath, and bassist Ron Carter. And recently Washburne established a similar series of alumni guest artists, including saxophonist Bobby Porcelli '59CC and pianist Armen Donelian '72CC.



Phoebe Jacobs, who died in 2012, left her papers to the University, and Washburne believes that her support for jazz at Columbia will continue to enrich students, regardless of their professional paths.

"Everything that jazz musicians do can translate into any field," he says. "I'm talking about the notion of improvisation and being flexible, fluid, and adaptable — spontaneously. That is the fundamental human survival mechanism: spontaneous adaptability. It's the reason we're all alive." — *Paul Hond*



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The wondrous, wise, whimsical world of artist and storyteller Ashley Bryan '50GS By Paul Hond



ONCE UPON A TIME THERE WAS A CHILD WHO LOVED TO MAKE BOOKS.

He wrote words and drew pictures, cut out shapes from paper and glued them to pages, then bound those pages together with great care. He signed the covers "By Ashley Bryan" and happily gave his creations away. Even then he recognized that beauty was a gift something to be shared.

Bryan would go on to train as an artist, and that love of books has defined his career. He has published some fifty books for children and received dozens of awards and honors, including the Coretta Scott King-Virginia Hamilton Award for Lifetime Achievement, the Children's Literature Legacy Award, and the New York Public Library's Library Lions award. As an artist, a teacher, a poet, and a memoirist, he has put education at the heart of his endeavors. There is a school named after him in Maine and a library named after him in Kenya. A professor emeritus of art at Dartmouth, he has received eleven honorary degrees.

At ninety-eight, Bryan still bubbles and brims with enthusiasm and delight and believes unshakably that the most important moment of his life is the one he is living now. Whether making books, puppets, or stained-glass windows or painting pictures of the irises and zinnias in his garden — whether working in pencil, watercolors, or woodcuts, or with stones and sea glass washed up on the shore near his home in Islesford. Maine - he approaches his work with the same sense of spontaneity and wonder that possessed him as a child. "All the things that I came across I turned into art," he says. "My parents encouraged my love for creating, and so did my teachers. I was always encouraged to make whatever I could from the things I found."

His creative energy seems limitless. In his nineties alone he has published seven books, including two of his most ambitious and acclaimed works for young audiences: *Infinite Hope: A Black Artist's Journey from World War II to Peace*, a memoir; and *Freedom Over Me*, a powerful imagining of the lives of eleven enslaved people whose names are on an 1828 estate appraisal that Bryan acquired. "Ashley gets lifetime achievement awards, and then there's another lifetime of work after that," says his friend Carl Little '80SOA, an art critic. "He is truly an amazing human being."

"He's an artist, he paints, but he's a lover — he *loves* things," says another close friend, the poet Nikki Giovanni. When asked about his approach to life, Bryan's response is simple: "Never let the child in you die."

A timeless spirit of invention flows through the tapestry of Bryan's multimedia work, a fabric woven of myriad impressions and influences: African folktales and Bible stories, Black spirituals and Bach concertos, the Normandy beaches and the Maine coast, Monet and Picasso, poetry and God. Bryan rejects categorization: all the arts blend in him like pigments mixed on a palette. When he reads a story or recites a poem, it becomes theater. Bryan inhabits the text, plumbs it, summons voices, and brings out the musical and rhythmic inflections that the words demand. He is an artist who not only sees but listens.

Bryan says an abiding love of poetry and folktales gave him the desire to illustrate books. Words for Bryan hold an almost mystical influence and can move him as deeply as any landscape or figure. "Poetry always fills me with a sense of awe," he says, his vivacious manner only slightly muted by time. "Poetry is the bedrock of life."

This past spring, the Morgan Library & Museum in New York acquired Bryan's preliminary drawings and cut-paper collages for Sail Away, his 2015 illustrated collection of Langston Hughes poems about water: oceans, rivers, rain. "There's a wonderful connection between the experiences of Ashley Bryan and Hughes," says Sal Robinson '03CC, an assistant curator of literary and historical manuscripts at the Morgan. "They both went to sea as young men. Ashley served in World War II on supply boats, and Hughes, who attended Columbia briefly in the early 1920s, worked on merchant ships."

In October 2022, the Morgan will honor Bryan with an exhibition fea-







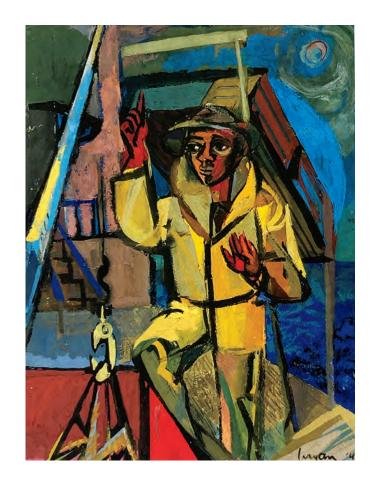
Top: Linocut from *Walk Together Children: Black American Spirituals*. Bottom: *The Welcome Table*, a stained-glass window in Redeemer Lutheran Church in Bangor, Maine.

turing *Sail Away* and other works. "We want to explore the way both men thought about the sea and the role it plays in their lives," Robinson says. For Bryan, that role is essential as air: for more than thirty years, he has lived full-time on the tiny Cranberry Isles, off the coast of Maine, surrounded by the sprays and mists and sparkling waves of the Atlantic.

shley Frederick Bryan was born in Harlem in 1923 and grew up in the Bronx. His parents, immigrants from the Caribbean island of Antigua, raised him, his five siblings, and three orphaned cousins in a tenement that also housed dozens of injured birds that his father. a printer of greeting cards, would bring home to rehabilitate. The neighborhood was diverse and included Black. Irish. Italian, French, German, and Jewish families, exposing Bryan to other cultures. As a child he fell in love with the stained-glass windows of nearby St. John's Evangelical Lutheran Church and begged his mother to take him inside. They were the first Black people to enter the church, and the Bryans became its first Black congregants.

In his senior year at Theodore Roosevelt High School, Bryan, a promising art student in need of financial aid for college, sent out his portfolio, and he was told by one distinguished academy in the city that while his work was as good as any, it would be "a waste to give a scholarship to a colored person." Bryan was stunned — this was New York, not Mississippi — but he weathered the blow. "I had such support from family, friends, and teachers," he says, "that my love of art made me move past it and kept me going."

His teachers urged him to apply to the Cooper Union, a prestigious tuition-free arts and engineering college where the admissions officers did not see the applicant, only the work. Bryan was accepted. But in May 1942, six months after the attack on Pearl Harbor and in the midst of his art studies, he was drafted into the segregated US Army and sent overseas.



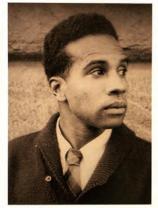
The war had a profound impact on Bryan. He was a stevedore in an all-Black unit stationed at times in Scotland, Belgium, and France and responsible for unloading supplies and ammunition from ships for the D-day landing at Omaha Beach. Bryan took a sketchpad everywhere he could — he even kept one in his gas mask — and when pads were scarce he resorted to drawing on toilet paper. He drew the soldiers and the ships and sent his artworks home to his parents; he wrote searching, lyrical letters to an art-school friend, Eva Brussel.

For decades, he kept his war memories, captured in hundreds of sketches and letters, locked away in a drawer of his bureau. It was only several years ago, at a children's literature seminar, that he first publicly mentioned that he had served in the war. The casual revelation surprised his listeners — there was nothing about Bryan to suggest a man acquainted with combat — and

it initiated a difficult personal process that would culminate in Infinite Hope, published in 2019, when Bryan was ninety-six. He and his editor at Atheneum Books, Caitlyn Dlouhy, went through countless drawings and letters, and Bryan composed a moving account of the most painful period of his life. "Most veterans don't talk," Bryan writes in the book. "They want to live past the devastations and tragedies of their war experiences. It's so hurtful to put yourself back in those places." The accompanying sketches and paintings show the soul of the artist, while the letters reveal a young poet of twenty, precociously perceptive, distilling, through "the months of foxholes and stress," his sadness, loneliness, fear, humiliation (at the hands of Southern white officers), faith, and love (for beauty, for art, for his fellows in the 502nd Port Battalion).

"The seagull is a soul," he wrote in one letter to Brussel. "It is my lonely soul





Bryan (above, at age 19) made art continuously while at war. Opposite: Winch operator on a military ship. Left: Three soldiers working as stevedores.

when I am down by the waterfront." In another, he prayed: "Oh God, make me brave for life."

"The war was horrible," says Giovanni, "and Ash thought he should keep track of it. He was drawing all along. Everyone saw that Ash was not going to shoot anybody. He was going to draw." Art saved him every day. Says Bryan, "I used my art to help me understand what I was experiencing."

What he was experiencing was a life lived not just in the shadow of death, but under the pall of official racism: white officers would restrict Black soldiers' socializing, send Black units to clear land mines, and allow German POWs to sit at the front of the buses while Black American soldiers rode at the back. When the war was over, Black soldiers were pulled off homebound ships that lacked the facilities for segregation and had to wait, sometimes for months, to return. And when they did arrive, there was no fanfare, no parades, and no respite from Jim Crow and racism generally.

Bryan struggled with all of this: death, destruction, injustice, and the enormity of atomic bombs being dropped on Japanese cities. He wanted answers, and "in an attempt to understand why men make war," he says, he enrolled at Columbia's School of General Studies on the GI Bill to study philosophy. During the summers he attended the Skowhegan School of Painting and Sculpture in Madison, Maine (it was on a visit to Maine's Acadia National Park that he first glimpsed the Cranberry Isles). After graduating cum laude from Columbia - both his Army discharge papers and his diploma were signed by Dwight D. Eisenhower '47HON — he went to the South of France to study art.

His arrival at Aix-Marseille University in the summer of 1950 coincided with an event that would help heal Bryan's

postwar trauma and forever change his art. Word came that Pablo Casals '70HON, the great Spanish cellist who was living in exile in the French border town of Prades, would end his years-long musical silence in protest of the Spanish dictator Francisco Franco with a concert marking the bicentennial of the death of Bach. Musicians came from all over to play with Casals, and Bryan got permission to attend the rehearsals and sketch. In trying to capture the motion of the bow strokes, Bryan internalized, with his own strokes of the pen, the spirit of performance - and discovered a new way to move a paintbrush. As Bryan says, "I found the rhythm of my hand."

By the mid-1960s, he had begun his publishing career, contributing illustrations for two books: a 1950 edition of the memoir *Black Boy*, by Richard Wright; and *Fabliaux: Ribald Tales from the Old French*, a collection of fables from the thirteenth and fourteenth centuries ornamented with Bryan's block prints of bathing nudes and prancing horses. Then, in 1965, he read a piece in the *Saturday Review* by educator Nancy Larrick '37TC that would alter his path. Titled "The All-White World of Children's Books," Larrick's essay was prompted by a five-year-old Black girl at the Manhattanville Nursery School in New York, who, looking at a picture book, asked, "Why are they always *white* children?" The article jolted Bryan, who in his own schooling had learned so little about inspired by poetry: his first book for Atheneum, his publisher of more than half a century, was a series of illustrations for a 1967 selection of poems by the Nobel Prize-winning Bengali writer Rabindranath Tagore (*Moon, For What Do You Wait?*). Bryan has since wed images to his own poems as well as to the verse of Langston Hughes, Paul Laurence Dunbar (*I Greet the Dawn*, 1978), nineteenth-century British poet Christina Rossetti (*Blooming Beneath the Sun*, 2019), and Nikki Giovanni (*The Sun Is So Quiet*, 1996, and *I Am Loved*, spirituals — for Bryan one of the great musical legacies in human history illustrated with linocut prints. He retired from Dartmouth in 1988 and moved full-time to the town of Islesford on Little Cranberry Island. With its sea and sky and wildflowers, the island overflowed with gifts of nature; and at sixty-five, Bryan embarked on a period of astonishing productivity that continues today.

His beloved editor, Jean Karl, died in 2000, and shortly afterward Bryan met Dlouhy, then a young editor at Atheneum. They hit it off instantly. "I just love



A collage from Sail Away, a book of Langston Hughes poems illustrated by Bryan. This year, the Morgan Library & Museum acquired Bryan's artwork for the book.

Black history or culture. Now he committed himself to celebrating Blackness through children's literature.

Much of Bryan's storytelling draws on *Folk-Lore of the Antilles, French and English*, a 1933 compendium of Afro-Caribbean tales collected by anthropologist Elsie Clews Parsons 1896BC, 1899GSAS. Bryan retells these stories in his own voice while channeling voices of the ancestors. He is also 2018). "Ashley has a strong sense of poetry," says Giovanni. "For *IAm Loved* I sent him poems and said, 'Ash, you just choose whichever ones you feel like drawing.' And I love what he did. Whenever you see Ashley's art, you see warmth and happiness."

Bryan joined the faculty of Dartmouth in 1974, and during his fourteen years as a professor he published, among other works, four volumes of Black American that man," Dlouhy says. "He never has an unkind or negative word. It's always, 'Look at this beautiful thing. Look at this beautiful day. We're alive.""

Their first book together, *Beautiful Blackbird*, a retelling of a folktale of the Ila-speaking people of Zambia, done in vibrant cutout paper illustrations, remains one of Bryan's favorites. In the story, birds of different colors — green, red, blue, pink, yellow, orange — come together to decide which of them is the most beautiful. The honor goes to Blackbird, whose black iridescence reflects all colors. The other birds want some black, too, and Blackbird, like a painter, touches each of them with a black feather, giving them black rings and markings, while reminding them that real beauty comes from within.

"In most books the color black is not regarded as beautiful," Bryan says. "With that book, I wanted to open up black as a way of making beautiful art."

o get to Bryan's house, you take a mail boat from Northeast Harbor to Little Cranberry Island. With a population of less than a hundred, the island is home to the Ashley Bryan Center, a nonprofit started by Bryan's friends to preserve and promote his work; the Ashley Bryan School, a two-room schoolhouse renamed for the artist in 2012; Islesford Congregational Church, its interior graced by Bryan's stainedglass panels of scenes from the life of Jesus; and, less than a quarter mile from the dock, Bryan's house, the interior of which Carl Little calls "one of the seven wonders, at least of Maine."

Neighbors Dan and Katy Fernald live two houses away and have both known Bryan since they were children. Katy, owner of the Islesford Artists Gallery, recalls how she and other kids would follow Brvan around as he walked the beach in search of objects for his art. "Someone once called him the Pied Piper of Islesford," she says with a laugh. Dan, a painter and lobsterman whose family has lived on the island for eight generations, says that whenever Bryan leaves town for conferences or readings, he befriends people and invites them to Islesford. "He's very kind, welcoming, and gracious," says Dan, "and there is a constant flow of visitors from all over the country."

Those visitors, upon entering Bryan's home, are startled by what they see: an exuberant profusion of objects crowding every surface: figurines, mechanical toys, handmade dolls, whirligigs, ceiling



Bryan painting in his home on Little Cranberry Island, Maine.

mobiles, and other trinkets collected over decades of travels. "The house is a children's wonderland," says Dlouhy. "Toys are everywhere — *everywhere*. If you brush against one on a shelf, four hundred will come toppling down on you."

Bryan has two studios in the house. Upstairs, buoyed by views of the harbor and his gardens, he does his painting and block-print work. In the downstairs studio he crafts puppets out of driftwood and other things gathered from the beach. "These puppets are unlike anything in the world," says Dlouhy. "They're remarkable not only in how he constructs them — it's all found objects - but also the stories: as he is making them, they start talking to him and telling him who they are, going back to the ancestors and Africa." As a gift to Giovanni, Bryan made a puppet with a fish skull for a head and a body draped in fabric, twine, and beads. "He named it Wambut," Giovanni says. "It's an East African name that means 'singer of songs.' I'm so honored. Coming into my home, it's the first thing you see."

"For me, Ashley is the closest thing to a prophet or holy man," says Little. "You feel like you want to touch the hem of his garment. It's that kind of thing. He's all giving."

It's this generosity and openness that allows Bryan to abandon any discrimination between artistic forms: paintings or puppets, woodcuts or collage, sketches or stained glass — they're all one to him. "My overarching theme is the love of making art, no matter what the material," he says. "My love of art makes me excited with the thought of using any materials and transforming them into something creative."

In that way, he's no different now than he was as a kid in the Bronx during the Depression, making art out of whatever he found. Now, as then, Bryan enjoys the love and support of family and friends. But more than anything else, art itself has sustained him, and his love for it continues to make him want to share it — especially with children, whose eager sense of discovery lives within him each day.

"I hope that through my work, children will see what is beautiful in them and explore art," he says. "Making art is one of the most adventurous experiences you can have. So always make art, always." a

HELES CONTRACTOR CONTR

MEET THREE ALUMNI ENTREPRENEURS FINDING NEW WAYS TO REDUCE, REUSE, AND RECYCLE BY REBECCA SHAPIRO arissa Cuevas Flores '18SPS doesn't like throwing things away. "Because there is no away," she says. "Everything has to go somewhere, so everything becomes waste. Unless we figure out a way to use it again."

Cuevas has made it her mission to do exactly that. But rather than focusing on the trash in our cans and dumpsters, she is finding ways to recycle the byproducts from Mexico's robust freshwater-fishing industry.

Cuevas's company, microTERRA, grows an aquatic plant called lemna on private fish farms. The lemna uses the nitrogen and phosphorus in the fish waste as fertilizer, cleaning the water as it grows. This not only allows the farms to reuse their water, it also results in a plant that is high in protein and can be processed and used in the food industry.

"We need new sources of sustainable protein, and this is a way to do it while also salvaging two-thirds of the water that a fish farmer uses every day," Cuevas says. "It's truly a win-win." and particularly about models of a "circular economy," the concept of using the waste from one industry as the starting product for another.

With the goal of founding another such company, Cuevas enrolled in Columbia's master's program in sustainability management. During the summer after her first year, Cuevas also participated



MARISSA CUEVAS FLORES '18SPS MICROTERRA

engineering and business schools, which helped her hone her ideas and create a compelling business plan. After winning the Greater Good Challenge — the School of Professional Studies' business-pitch competition — as well as grants from the Tamer Fund, Echoing Green, and National Geographic, Cuevas returned to Mexico City to start her venture.

MicroTERRA initially focused on using microalgae that would filter the water in fish farms and double as food that the fish could eat, but the company struggled to find farmers willing to buy the product. It pivoted to using lemna, also known as duckweed, a plant that grows on the water's surface and doubles every thirty-six hours, while cleaning the water at the same time. With a 35 to 42 percent protein content, lemna also had the potential to be a key ingredient in sustainable plant-based meat alternatives.

"But it was still difficult to convince farmers to take on the risk, even with clear environmental benefits," Cuevas says.

The Water Warrior

"We're tackling two problems at once. We're turning a residue into a resource."

Cuevas has long used science as a tool to understand the world. She grew up in Mexico City as the daughter of two chemists, and she says that "science experiments were our idea of family fun." After training as an engineer in Germany, Cuevas returned to Mexico, where she worked for a renewable-energy agency.

"People in the office used to get takeout for lunch every day, and the food would come in Styrofoam containers, which of course ended up in the trash," Cuevas says. "I started to think about what we could do with the Styrofoam to make it reusable."

Cuevas founded Kitcel, a startup that set out to turn Styrofoam into wood varnish. The venture was short-lived — as a novice entrepreneur, Cuevas had trouble raising sufficient funds to grow the company — but she says she learned a great deal about running a business, in a three-month leadership training in Silicon Valley. Cuevas says that two lectures there were instrumental in shaping microTERRA.

"The first was about the potential of biotechnology and synthetic biology to solve major environmental problems," she says. "And the second was about the UN's forecast that our next world war will be over water. That absolutely stopped me in my tracks."

Cuevas returned to Columbia energized about finding a more sustainable way to use water in farming and animal husbandry. "Seventy percent of the world's fresh water goes into agriculture," she says. "So it's vital that we preserve as much as we can."

The flexibility of the program, which is jointly administered by the Earth Institute, allowed her to take classes at the By this time, the COVID-19 pandemic had hit, and Cuevas spent much of the lockdown staying in an Airbnb. Inspired by the sharing economy, she revisited her business model. She decided that instead of selling the product to farmers, microTERRA would rent the surface of their freshwater ponds. The farmers would benefit from both the income and the cleansing properties of the lemna, and microTERRA would be able to grow and resell lemna without using any additional water or other resources.

MicroTERRA piloted the idea with one farm in January 2021 and quickly expanded to two more. Initally, the company mostly sold the processed lemna to pet-food companies, though it is now pivoting to work with chefs and plantbased-food producers.

"We're tackling two problems at once," Cuevas says. "We're turning a residue into a resource." ani Vajipey '13BUS had a successful career at Qualcomm, developing software for the iPhone and iPad, when he decided to trade it all in — for trash. Now, eight years later, his company, Banyan Nation, is revolutionizing the recycling industry in India, providing ethical and sustainable solutions to waste management. "I am the garbage guy," says Vajipey with great enthusiasm. "It's become an obsession."

more plastics than any other developing economy," Vajipey explains. "But because the government does not regulate trash collection, everything is mixed together and left on street corners. Poor people collect the plastics and resell them to local vendors, who then sell to private recycling centers. That supply chain is a few billion people strong."

But despite the volume of plastic being collected, Vajipey learned that much of it was being wasted. Major corporations were reluctant to buy recycled plastic,

The Recycling Reformer

Vajipey, who grew up in a small town near Hyderabad, found his calling unexpectedly. He trained as an engineer in India and came to the United States in 2002 to earn a PhD at the University of Delaware. After completing a summer internship at Qualcomm, in California, he ended up staying at the company, building a lucrative career in telecommunications. But he wanted to do something more. "I was never much for the rat race," he says. "I started thinking: what else? Where could I make the most impact?"

At the urging of his mentors at Qualcomm, Vajipey took a year's sabbatical and traveled to India to learn more about some of the pressing problems in the developing world, then applied to Columbia Business School with the intention of finding solutions. "My heart was in the right place, but I was all over the map — thinking about health care, about education. I needed focus."

He found it in an entrepreneurialfinance class during a guest lecture by Ron Gonen '04BUS. Gonen, who had created Recyclebank, a rewards program for recycling, and also overseen New York City's recycling program, inspired Vajipey to start thinking about garbage, specifically about the piles of trash on India's streets. When he started to research, he realized the system was ripe for reinvention.

"In some ways, it's a very efficient system. India recovers and recycles



MANI VAJIPEY '13BUS BANYAN NATION ary recycling centers. From there, he was able to mine crucial data about how much waste was being produced and how it was being collected and transported. He then drew on his engineering background to devise a recycling system that ensures proper sorting and a high-quality end product. Banyan Nation is now able to produce recycled plastic granules that are extremely close to virgin plastics.

Rather than relying on a black-market system, Banyan Nation employs the same people to collect and sort waste, ensuring an ethical supply chain and also providing job security for hundreds of people in Hyderabad. Since it is able to vouch for both the supply chain and the end product, Banyan Nation has secured contracts with major corporations like Reckitt and Unilever.

"If you understand the problem well and deep enough, then the solutions follow," Vajipey says. "And when the solutions follow, the money follows."

Since Vajipey founded the company, in 2013, Banyan Nation has recycled over two thousand tons of plastic. In the past year alone, partner companies have manufactured over a hundred million bottles from Banyan Nation plastic for use in packaging shampoos and other cosmetic goods. But he says this is just

"India recovers and recycles more plastics than any other developing economy."

because materials were not always properly sorted and the quality of the processing was inconsistent. "Back-channel recyclers bend and burn plastics in order to identify the resins within them, creating inconsistent and poor-quality materials," says Vajipey. "There's no accountability — the system is informal, illegal, and largely invisible. But I started to wonder how we could harness the power of all those people."

Vajipey tackled the supply chain first. Teaming up with a former classmate from the University of Delaware, he developed an app to map Hyderabad's 1,500 stationthe beginning. "Right now, it's a luxury for companies to be able to use recycled plastics," he says. "We want to make it so that it's the norm. First in India, and then around the world."

Vajipey says that he named the company after India's national tree, the banyan, a large shade tree where villagers would traditionally gather to discuss important matters. "Waste management isn't glamorous, but it's an urgent problem for the environment and for developing economies," he says. "I wanted for us to come together under the same tree and figure out a way to fix it." hen Cassia Moraes '15SIPA graduated from college with a degree in international relations, she knew she wanted to find a job that would allow her to work on the climate crisis. But despite major growth in the sustainability sector, she found it hard to land a position where she felt that she could make a difference.

"Like many people of my generation, I believe passionately that climate change is the biggest global challenge that we're going to face this century," Moraes says. "But I couldn't find a place to direct that passion."

Moraes, who is Brazilian, hopes that she can change that for others. She is a cofounder of Youth Climate Leaders (YCL), an organization that trains young people for careers in climate and sustainability and connects them to a global network of people working in those sectors. YCL's two major educational programs are a seven-week general course on climate change and a two-week intensive course on a Moraes's own career path was circuitous, despite her best intentions. After college, she ended up working for a bank in São Paulo, where she hoped to focus on corporate responsibility. Instead she was ushered into the finance department, thanks to her international-relations experience and English skills. Still dedicated to pursuing a career in environmental policy, Moraes spent her free time on relevant volunteer projects, which eventually led to a three-month position with the Brazilian mission to the United Nations. While there, she was accepted to SIPA.

"Columbia was a real turning point in my career," Moraes says. While studying for her master's with "inspirational" professors like Jeffrey Sachs, Moraes completed a research project on the impact of climate change on small farmers in Brazil and also interned at the UN. After graduating, she worked on environmenthat they were able not only to overcome them but to thrive despite (and perhaps even because of) them. They pivoted from mostly in-person courses to entirely virtual lessons, which Moraes says has



CASSIA MORAES '15SIPA YOUTH CLIMATE LEADERS



"There are so many young people out there who have the energy and focus to combat the climate crisis."

specific environmental issue; YCL also offers customized trainings for schools and organizations. After completing their coursework, participants are given access to mentorship programs, career-development webinars, online networks, and a job board with postings from partner organizations in relevant fields. YCL also hosts lectures, meetings, and other activities through regional YCL hubs and sends delegates to major global events, like the United Nations Climate Change Conference and Climate Week NYC.

"It's both a network and a credential," Moraes says. "Our partners feel good about hiring someone who has participated in the program, because they know that the applicant has had some training and is committed to the cause."

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tal policy at an NGO in New York before returning to Brazil.

But even with her experience, Moraes again found that she had a hard time securing opportunities in Brazil. Inspired to change that, she teamed up with three other Brazilian women working in similar fields to start developing the first version of YCL's curriculum. In January of 2018, they entered their business idea in a contest through MIT's Climate CoLab and won, which helped them to officially launch the company. In the summer of that year, they held their first immersion courses, and by the fall they had implemented the general courses and started the São Paulo YCL hub.

When the COVID-19 pandemic struck, in the spring of 2020, YCL faced several unforeseen challenges. But Moraes says allowed them to immediately expand their reach beyond Brazil. Today coursework is offered in all Portuguese-speaking countries, and soon it will be offered globally in English.

"It was a difficult time to be making partnerships, when so many companies had hiring freezes, but I'm proud that we were actually able to grow our company during the pandemic," Moraes says. "Climate change didn't stop because there was another immediate crisis, and so it was more important than ever to keep people engaged."

Last year, YCL trained over five hundred people across twenty countries, and more than 90 percent of them are either working in the field or continuing their studies. Moraes says that they hope to increase those numbers, with a target of eight thousand students and 750 partner organizations by the end of 2022.

"There are so many young people out there who have the energy and focus to fight the climate crisis," Moraes says. "We're just helping to point them in the right direction."

The Mental Weight of COVID-19

Columbia psychologists and psychiatrists prepare for a tsunami of mental-health issues caused by the collective trauma of the pandemic

> By Beth Weinhouse '80JRN Illustrations by Rose Wong

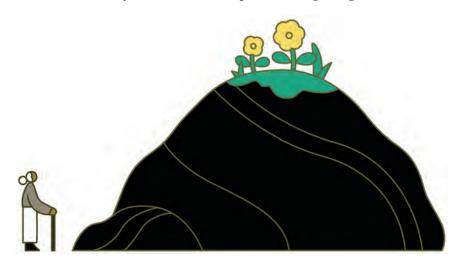
hen COVID-19 raged across the globe in early 2020, people were terrified of the novel pathogen. Health-care professionals were taxed to their limits as hospitals filled with patients struggling to breathe. Virologists and epidemiologists worked frantically to understand the virus, while national governments disagreed over policies to contain and control it. Meanwhile, Columbia's psychologists and psychiatrists began to prepare for a second pandemic: one of widespread mental-health challenges.

"There's a link between events where people have traumatic experiences and then some sort of psychological sequelae," explains Jeffrey Lieberman, chair of the Department of Psychiatry at the Vagelos College of Physicians and Surgeons. But predicting the exact psychological sequelae, or mental-health effects, of the COVID-19 pandemic presented a challenge.

Researchers look to historical precedent to deduce what will happen in response to a traumatic event. Data suggests that natural disasters like hurricanes and tornadoes and geopolitical tragedies like terrorist attacks and war can all take a tremendous toll on the psyche. But, as Lieberman explains, nothing as pervasive and prolonged as the COVID-19 pandemic has happened in the US in recent history.



The Spanish flu, the Great Depression, and World War II occurred before disaster psychiatry and disaster epidemiology were fully developed. Data from more recent, more limited, or more local disasters suggests that the demand for psychological support, whose use soared during the worst of the pandemic, will continue for months, if not years. After Hurricane Katrina, rates of posttraumatic stress disorder in people whose homes were destroyed or damaged remained high even five years later. And after the Chernobyl nuclear disaster, health-care workers and in people who haven't had the opportunity to deal with grief," says Kathleen Sikkema, chair of the Department of Sociomedical Sciences at the Mailman School of Public Health. "Grief was so disjointed. People who lost loved ones were not able to participate in routine but important bereavement rituals." And there were other losses. Sikkema says people will need to grieve for job losses and failed businesses, loss of financial security and restricted freedom of travel, loss of a social life and postponed weddings and graduations.



first responders still had elevated rates of depression and PTSD two decades after the explosion.

"What the data shows very consistently is that the psychological footprint tends to exceed the medical footprint in size and duration," explains Lou Baptista '14PH, associate professor of psychiatry at Columbia University Irving Medical Center and vice chair for clinical services in the Department of Psychiatry. "Some people can become depressed or develop panic attacks or have exacerbations of substance abuse during the acute phase of a disaster. Some people can start experiencing psychological challenges in the immediate aftermath, when things start to normalize. Some people might feel the effects even later."

One of the most widespread mentalhealth challenges will be coping with the anguish of loss. "There will continue to be delayed traumatic responses, in

While all of us have been affected by COVID-19, some are more vulnerable to long-term mental-health effects. "For some individuals who have a predisposition or constitutional susceptibility to a particular disorder, the pandemic will be the precipitant that causes them to manifest symptoms of that disorder," says Lieberman. So while the pandemic won't affect the number of people suffering from neurological or mental-health disorders like autism, schizophrenia, or Alzheimer's disease, it will increase the number suffering from depression, anxiety, obsessive-compulsive disorder, PTSD, and phobic disorders. These conditions could persist for quite a while. "During a crisis, people tend to rise to the occasion and meet the challenge. Adrenaline is flowing," says Lieberman. "But the aftermath is when these conditions will occur and will continue to occur, over a period of several years." The pandemic may

also exacerbate complications of these conditions, "including self-medicating with alcohol or recreational intoxicants, substance abuse, suicide, and violent behavior. We've seen some degree of that already," he says. In July the US government reported that overdose deaths rose 29 percent in 2020, to a total of 93,000 lives lost. This disturbing uptick is expected to continue. "We'll see more over time," says Lieberman.

As many physicians across the US turn their attention to understanding the prolonged physical effects of viral infection (so-called long COVID), mental-health professionals at Columbia and other leading medical centers are gearing up to provide care and resources for those who are experiencing lingering psychological challenges.

"We have to try to look ahead and anticipate the infrastructure and the capacity needed to support our community," says Baptista. "Yes, recovery is still the norm, but we do expect an increase in mental-health needs in the months and years to come."

One way to think of the pandemic, says Sikkema, is as a year and a half of collective trauma. "When you have these kinds of traumatic experiences, regardless of how severe, they don't just disappear. Our lives were disrupted for a year and a half in ways that no one could imagine. Some people will be resilient and go back to the way they had been before. But most people will be changed in some way."

Bringing Mental-Health Resources to Communities that Need Them Most

t the beginning of the pandemic, the message was one of unity: we're all in this together. But it didn't take long for the flaws in that rallying cry to become evident. People of color and the socioeconomically disadvantaged were disproportionately affected by the coronavirus and therefore most in need of mental-health resources. These overlapping demographics have traditionally been underserved.

"We talk about 'food deserts' — areas that don't have access to healthy food and fresh produce. Well, those same areas can be mental-health deserts," says Sikkema.

Mental health is influenced by food security, access to education, and other social, political, and economic factors that often weigh heavily on people of color. The racial unrest mobilized by the murder of George Floyd in the midst of the pandemic added to an already high level of stress. "Rates of anxiety and depression spiked in the Black community after George Floyd's murder," says Sikkema. "So much of our mental-health treatment is not as culturally tailored as it should be."

"Clinicians can be racist and can be perceived as racist by patients," says Sidney H. Hankerson, assistant professor of clinical psychiatry at Columbia. "It's important to acknowledge that."

Hankerson adds that structural racism also inevitably affects patients' lives. "For example," he says, "Black adults with depression have more severe symptoms and a longer course of illness compared to white adults, yet Black adults have lower treatment rates."

One important step in reducing disparities across communities is encouraging more underrepresented minorities to enter mental-health professions. "We need to find more funding to get more people into the field so we have a more diverse mental-health workforce," says Sikkema.

While academic centers are actively working on achieving that longer-term goal, the University is helping to deliver mental-health information and treatment to vulnerable members of its surrounding communities. "Programs to identify mental-health-care needs in the community and facilitate access to treatment existed pre-pandemic, but now there's a push to expand them," says Jean-Marie E. Alves-Bradford, director of Columbia Psychiatry's Office of Equity, Diversity, and Inclusion.

One effective way to reach people in underserved areas is by providing

community-based support and training religious leaders, teachers, and even hairdressers and barbers to recognize signs of mental distress. "We're getting people trained and getting mental health integrated into places where there is key trust in others," says Sikkema.

Hankerson is involved in a project that trains church members in Harlem to screen people for depression and provide counseling. The project aims to overcome the cultural mistrust and stigma that can prevent some in the African-American community from seeking mental-health services. Recently Hankerson and his colleague Milton Wainberg, a professor of clinical psychiatry, received a \$750,000 federal grant that will help them expand their work to Washington Heights and the West Bronx. Eventually they hope to expand the project to other parts of the state and even bevond.

Another innovative new outreach initiative is the psychiatry department's Post-COVID Community Mental Health Project, funded by the Leon Levy Foundation. Working with the National Black Leadership Commission on Health and the New York Public Library, the project sets out to increase public access to mental-health information. "We want to engage communities in a dialogue about their needs, and we've already completed community roundtables with residents in northern Manhattan and the Bronx," explains Linda Rosenberg, executive director of external relations for the psychiatry department. Ten mental-health topics — targeted to the general population, seniors, young adults, and teens — have been chosen based on these roundtables, and Columbia Psychiatry will produce a series of educational videos on these topics. Local libraries will purchase books, distribute and promote materials, and host a series of virtual community-education forums.

"The pandemic has exacerbated longstanding disparities in mental-health treatment," says Lieberman. "But this can be a time of opportunity. Our goal is to deliver accessible and accurate information that reduces distress and trauma, builds resilience, and, when needed, helps people find treatment."

Supporting Kids and Teens

arents were relieved to find out that the novel coronavirus appears to have less dire physical effects on young children and adolescents, at least on average. But kids and teens are certainly vulnerable to the psychological toll of the pandemic. Visits to pediatric emergency rooms for mental-health symptoms are up across the country, and there's a severe shortage of child psychiatrists and residential facilities for treatment. The need existed before COVID-19, but it has been sharply accentuated by the pandemic.

"The million-dollar question is whether the mental-health issues created



or exacerbated by the pandemic will be short-term or longer-lasting in children and teenagers," says Anne Marie Albano, a clinical psychologist in the Department of Psychiatry and the founder of the Columbia University Clinic for Anxiety and Related Disorders.

"For the majority of kids — kids who had solid connections with their family and friends, were developing in the typical way, and were doing OK in school — the pandemic will eventually be an experience that's in the rearview mirror," says Albano, who specializes in treating children, adolescents, and young adults. "These kids may have experienced anxiety been home for all this time and now they have to go back. Some of these kids will take weeks or perhaps months to adjust to a new routine. For a lot of kids, this reintroduction is going to be very difficult and very triggering."

Schools with sufficient resources may be able to provide access to counselors and tutors to help struggling students get up to speed. But parents can do a lot to mitigate their children's stress. Baptista recommends that caregivers moderate their own apprehension and anxiety, especially around younger children. "If caregivers and parents are showing a lot of anxiety, the kids will pick up on that,



"We've discovered that building community is a form of self-care. That's a great gain that should not go away."

adjusting to teleschooling and other disruptions, but they'll be OK." However, she adds, kids who had preexisting anxiety or depression, kids with adaptive or maturity issues, LGBTQ kids, and kids from communities lacking resources to provide extra help may be at greater risk.

As children across the country are returning to full-time, in-person classroom education, mental-health professionals suggest that parents be patient and not expect an instant return to normalcy. Different kids, even within the same family, will have different reactions to the change in routine. "Some kids will be fine on day one. But there will always be kids who struggle more," says Baptista. "Imagine socially anxious kids who have and it will affect their own level of confidence and anxiety," he says.

"Reassurance is also a significant tool that parents have," Baptista says. "Reassure constantly and proactively. And listen to your kids. Often we assume that our concerns are the same as theirs. Take the time to ask questions. Your kids might be worrying about something that you didn't even think about, and you can engage them in finding a solution."

Albano urges parents of kids struggling with transitions to boost their children's self-confidence by giving them age-appropriate opportunities for more independence at home and by encouraging them to deal with everyday disappointments. "Help your kids set reasonable small goals that give them a sense of ownership over the things they do," she says. And, she adds, considering how insular many lives have been over the past year and a half, "some of these goals should be altruistic. You want to encourage your children to become young adults who will participate in the broader world."

For children, especially young children, Baptista says the pandemic can be thought of as "a forced regression. Kids will be a year older chronologically but not necessarily socially or emotionally more mature. It was a developmental arrest in a way." Fortunately, the majority of kids will make up for lost time quickly. "We have to be optimistic and understand kids are resilient. Most kids will catch up."

The Importance of Self-Care

s experts have noted, the demand for mental-health services rose during the pandemic and is expected not only to continue but to increase even as cases of COVID-19 decline. But while some people require professional counseling for pandemic-sparked psychological challenges, others can manage their own health and well-being through self-care.

And yet self-care became notably more difficult during the COVID crisis, because people could not rely on many of the strategies they had previously employed to handle stress and bring joy, says Baptista. Get-togethers with friends and family, meals out, travel, gym workouts, salon haircuts, spa manicures, movies, concerts, and museum visits were all off-limits.

As the world opens up, most of these activities are becoming available again, but professionals suggest that we could all benefit from learning additional selfcare strategies to bolster our emotional well-being. Claude Ann Mellins, a professor of medical psychology in psychiatry and sociomedical sciences and the codirector of the office of clinical psychology, encourages people to practice mindfulness as a general coping strategy. "We know that trauma keeps your brain in the past, reliving things, or in the future, worrying they'll happen again. It's hard to feel settled. Taking just a few minutes to ground yourself in the present is a healthy way of reducing anxiety and stress."

Cultivating a sense of gratitude is another important coping skill, she says, adding that it can be helpful for people to keep a journal by their bed and make a note of something they're grateful for at the end of each day. "There's some interesting research that shows that when people are given the opportunity to express gratitude, there's actually a psychological and physiological improvement."

The coping mechanisms and self-care strategies people develop now will certainly be beneficial for getting through life challenges in the future. "There's a concept called traumatic growth: we go through periods of adversity or significant stress and we learn something from that experience that we carry with us," says Baptista. "Maybe we don't need to go back to the way things were exactly. Many of us have become more aware of our emotional reactions and how we react to chronic, prolonged stress both physically and mentally. So many more people now see the value of being kind and supportive to each other. We've discovered that building community is a form of self-care. That's a great gain that should not go away."

An Opportunity to Shift Attitudes and Move Forward

hile the pandemic has caused so much suffering, psychologists and psychiatrists see a silver lining in the new public attention focused on mental-health needs and the increased willingness of an empathetic public to make care more available. "There's been so much discussion about well-being and resilience and the need to pay attention to our mental health," says Elizabeth Fitelson '03VPS, director of the Women's Program in the Department of Psychiatry. "My hope is that as more people experience symptoms and recognize



their vulnerabilities, mental health will be discussed more publicly and there will be opportunity for a shift in attitude and hopefully more resources."

The fact that the pandemic was a global phenomenon means that anxiety and other psychological symptoms were experienced - to a greater or lesser degree — by almost everyone. That shared experience has decreased the stigma around asking for professional help. "Normalizing what people are experiencing redefines asking for help as a sign of strength," says Mellins. Mellins lauds public figures like gymnast Simone Biles and Prince Harry who have come forward to talk about their own mentalhealth struggles. "People don't know how to label what they're experiencing; they feel so much better when it's validated as a normal response," she says.

Another major form of progress was the rapid rise of telemedicine. It showed that mental-health services can be delivered to people regardless of where they live or work. The challenge for the profession will be training enough providers to meet the increased demand. "Every mentalhealth provider I know has a waiting list now," says Mellins. "People who were in treatment are not leaving. People who weren't in treatment now want to be in treatment. People are asking for therapists for children, for young adults, for themselves. Across the country I think everyone is grappling with this demand and trying to create programs."

Many experts hope that this demand will drive countries to prioritize mentalhealth care and deliver it to all who need it. "The usual way psychological disorders are treated in America, which is not the preferred way, is that people develop symptoms, and if they're bad enough they'll seek treatment," explains Lieberman. "But a better way would be to be more proactive and to have already initiated a public mental-health plan to deal with the aftereffects of the pandemic."

Lieberman says that a false distinction between physical and mental health still stands in the way of providing quality care for all. "If there were a national health threat like salmonella in produce or contamination of the atmosphere by a volcano, the CDC and other government health officials would do something about it," says Lieberman. "What we're facing here is a national threat to the psyche of the population. It's a legitimate public-health threat, and certain people are going to be much more vulnerable."

Baptista, too, hopes that the pandemic will turn out to be an impetus for change. "Even before the pandemic, there were significant limitations on accessing mental-health care," he says. "But so many more people have required some additional support that asking for help has become more normalized. We have to keep the momentum going, because the need is going to be great for years to come." do



What Are They Thinking?

For science educator Michelle Ashkin '04GSAS, teaching kids about the minds of other species is more than a passion — it's a wake-up call to humanity By Paul Hond

his summer, when she wasn't fighting to protect the wild ducks in the pond near her home in Lower Manhattan or tending to injured squirrels, Michelle Ashkin '04GSAS was teaching teenagers about the dialects of whales and the problem-solving skills of crows. Ashkin's intensive three-week course

Ashkin's intensive three-week course, offered through Columbia's Programs for High School Students, is an introduction to the field of cognitive ethology - the study of animal minds. Inside the Animal Mind: What Animals Think and Feel invites students to explore the wonders of other species: the unearthly intelligence of the octopus, an invertebrate whose neurons are located mostly in its eight arms ("like having eight brains," Ashkin says); the cleverness of the crow who drops stones in a drinking glass to raise the water level within reach; the speech of sperm whales, whose vocal clicks, called "codas," are being analyzed by scientists who hope to decipher them, opening the Dolittlean possibility of language-based interspecies communication.

For Ashkin, the growing body of knowledge about animal cognition isn't just a compendium of fun facts.

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It also tests the ethical basis of human dominion over other animals. "My whole mission in life," Ashkin says, "is to raise awareness about our fellow creatures and to get people to think about their relationship with them."

To paint a fuller picture of that relationship, Ashkin begins the course with a history of philosophical and scientific thought about animals, citing, among others, Descartes, who saw animals as mechanical creatures lacking souls and the capacity to think or suffer, and Darwin, who in The Descent of Man posited that emotions and faculties such as love. curiosity, and reason were not exclusive to humans but were shared among species and differed only in degree. She also acquaints students with the giants of modern ethology, like primatologist Jane Goodall, zoologist Konrad Lorenz, evolutionary biologist James L. Gould, and naturalist E. O. Wilson, the last of whom has proposed setting aside half the land on earth as habitat for wildlife.

Ashkin's students come to her class "thinking that cows are just hamburgers and wallets, and chickens are nuggets or wings," she says, only to have these deeply ingrained notions upended. "When they learn that chickens purr (it's called 'trilling') and love to be held, that they are smart and affectionate; or that cows panic and cry when their calves are taken from them, that they remember faces and people, form friendships, experience emotions, and love to play — it blows their minds."

Ashkin's course challenges "a whole history of a quest to separate ourselves" from other creatures. "We keep trying to find the holy grail of distinction between Us and Them," she says. "For vears it was tool use. But now we know that some animals use tools - not just chimps but also octopuses, crows, and elephants. Then it was a 'working memory' - the ability to briefly store and use small amounts of information. Well, animals have working memory too. Then it was the ability to selfrecognize in a mirror. Well, certain animals - apes, elephants, magpies, dolphins - pass this test. Every time we think we've set the line of distinction between humans and nonhumans, they meet that line and we have to make another one. And so as we look for the thing that makes us human, that separates us from other animals, what we find instead is that we are more alike than we ever dared imagine."

Such comparisons have long invited charges of anthropomorphism — the projection of human traits onto nonhumans — but the ground is shifting. "In the first part of the twentieth century, behaviorism — the theory that behavior is a response to stimuli in the environment — held an iron grip on animalbehavior studies in this country," Ashkin says, noting that behaviorists relied solely on observable data and rejected intangible ideas like consciousness. "It was taboo even to consider that animals as can insects, so the world looks very different to them. A hummingbird can see colors we cannot even imagine. A dog's sense of smell is thousands of times more acute than our own. Elephants and baleen whales can hear low frequency or infrasonic sound waves that enable them to communicate over vast distances. And bats, dolphins, and whales can detect objects and food by using their biological sonar, which we call echolocation.

"Can we step into that existence and experience what it's like to be another



Michelle Ashkin in in Battery Park City, Manhattan.

had emotions or any kind of internal subjective processes, because the nature of the subjective experience is not measurable. But today, with an explosion of research and new breakthroughs in artificial intelligence and neuroscience, the evidence of animal sentience is overwhelming."

Of course, Ashkin acknowledges, the animal experience can never be truly knowable to humans. "How can we conceive of colors, sound, smells, and sensations that are not available to us?" she says. "We humans are very restricted in our senses — visually we detect a relatively narrow range of the electromagnetic spectrum, which precludes us from seeing ultraviolet and infrared wavelengths. Many birds can see UV light, animal? No. The best thing we can do is to explore, as deeply as we can, the extraordinary and sometimes unfathomable ways that the millions of species on this planet interpret their world."

shkin's fascination with the minds of other animals didn't start with a dog or a cat. It started with a wasp. Growing up in Queens in the 1960s, Ashkin lived with cats, birds, and a rescue tortoise. "I was always curious about how animals lived their lives, how they made decisions, how they knew what they knew, and my pets instilled in me the notion that nonhuman animals are each different, with their own sets of needs, desires, and abilities," she says. But it wasn't until she was fifteen that an ordinary incident snapped her into a new level of awareness. She and her parents were out in the country in their mobile home, when a wasp got inside. It flew around and landed on the shower curtain. Ashkin saw it and called out for her mother, who ran in with a rolled-up newspaper.

"Then a strange thing happened," Ashkin says. "We're looking at the wasp, and the wasp literally looked back at us. It cocked its head, and my mother and I just stood there. *Did we just see that?* We moved, and the wasp followed our movement. My mother and I looked at each other, and it was an 'aha moment' for both of us: *This is a being. This* being sees us, or sees something recognizes it, and is aware of it. How in the world were we going to kill it? We couldn't. It became — there's no other way to say it - it became a *being*, not a thing, not disposable, not 'oh, we can kill it because there are hundreds more outside.' So we found a cup, captured it, and let it go. And that was the beginning of my journey."

Inspired by an insect, Ashkin began reading about the minds of animals. She learned about the cognitive abilities of chickens, cows, and sheep and did research on the sociability and intelligence of wolves. "Once you start to study this stuff, you can't stop," she says. "You just want to learn more."

In 1992, Ashkin had a second aha moment. Having earned her master's in education from NYU, she was working as a teacher at the new High School for Environmental Studies (HSES), the first public school of its kind in New York City. One day, she accompanied a group of students on a trip to Farm Sanctuary in Watkins Glen, New York. A 275-acre refuge for animals that have escaped slaughter, the sanctuary was founded in 1986 and is currently led by Megan Watkins '97BC, '00SIPA.

During a break in the tour, Ashkin went for a walk. She sat down on a grassy hill, taking in the breeze and the view, when she sensed a presence. She turned and saw three cows lumbering toward her. "I thought, uh-oh, are they going to get aggressive? Am I in their territory?"

She remained still, and the cows came over to her and, to her amazement, started to nuzzle her face. "I already loved cows as beings — I respected them, I didn't want to eat them — but I never imagined that they were affectionate," Ashkin says. "And that's when I realized that it's not just dogs and cats that are capable of affection. It's across the board."

Ashkin taught at HSES for ten years before her alarm at the ongoing destruction of habitats and species steered her toward a master's at Columbia's Department of Ecology, Evolution, and Environmental Biology, where her fieldwork included tracking endangered bobcats in New Jersey.

"Environmental protection is a lot more than clean air and clean water," she says. "It is protecting essential ecosystems, developing land wisely so we can cohabit spaces safely with wildlife, and overhauling our factory-farming practices, which are horribly inhumane and environmentally destructive. It is all connected."

After graduating from Columbia, she started a brand-new public school, the Academy for Conservation and the Environment, in Brooklyn. She was principal there for three years before she left to work more directly with animals - and to educate people about the need to protect them - at the Wild Bird Fund (WBF), the only wildlife rehabilitation clinic in New York City. Located at Columbus Avenue and West 87th Street, near Central Park, the WBF treats about seven thousand injured or orphaned creatures a year, including robins, redtailed hawks, pigeons, falcons, songbirds, swans, and ducklings. In the basement there's an operating room and a space where recovering birds practice their flying and foraging skills. "We have amazing rehabbers, and we try to release as many of the animals as we can," Ashkin says. "It's a real labor of love."

As codirector of education at the WBF, Ashkin runs programs for schoolchildren and hosts field trips to the clinic. "When students visit us, we take them on a bird walk in the park, making sure they understand that these animals have very specific places where they live and very specific foods they eat, and that we have to make sure we don't destroy the places they call home."

Ashkin is aware that the phrase "animal rights" has negative connotations for some, and she doesn't proselytize to students. In her Columbia course, she waits for the kids to bring up matters of ethics — which they invariably do. "These kids are from all over the world and are incredibly bright," she says. "Many haven't thought about these issues before, and it's something they want to talk about." my students some discourse around these topics, because we all have to make decisions about how we live our lives," she says. "The course raises more questions than it answers, which is perfect."

Some of those questions, she admits, are difficult — and so are the answers, particularly in the context of extreme weather, mass extinctions, habitat destruction, overfishing, industrial-scale animal agriculture, and a zoonotic pandemic.

"As Maya Angelou famously said, when you know better, you do better. But doing better, in this case, means we need to transform industries; rethink what we eat, what we wear, how we

"As we look for the thing that makes us human, that separates us from other animals, what we find instead is that we are more alike than we ever dared imagine."

Such conversations are taking place globally, and not just in classrooms. This year, the UK Parliament introduced the Animal Welfare (Sentience) Bill, which contained provisions for an "Animal Sentience Committee" to assess the effects of government policy on animals. The Turkish Parliament approved a bill that would reclassify animals as living beings instead of commodities, calling for jail terms for animal abuse (instead of the standard small fine). In the US, the Supreme Court declined to hear a meat-industry challenge to California's voter-passed Proposition 12, which gives pigs, veal calves, and egg-laving chickens more room to move around in their crates and cages. And when forty cows escaped from a Los Angeles slaughterhouse in June and were filmed galloping down a suburban street, many viewers rooted for their deliverance. (The herd was eventually corralled and returned to the slaughterhouse; two of the cows were spared and sent to a sanctuary.)

The topic is certainly timely, and Ashkin, while sensitive to its controversies, feels obliged to leave space for dialogue in the classroom. "It's only fair to allow live; and consider how our thoughtless self-centered human behaviors continue to endanger and extinguish so many species. How do we do that on a planetary scale? We can't even treat each other with dignity and respect. What we really need is an earth-shattering paradigm shift."

Until that happens, Ashkin will continue to dedicate herself to teaching humans about other animals. "I want to inspire people to ask the right questions and be stewards of wildlife, because these animals need our help," she says. "Nothing brings me more joy than when I see people have that aha moment the realization that other animals are beings in their own right."

For Ashkin, such moments are not an end but a beginning.

"With new awareness comes the hard part," she says. "What do I do now that I know my behavior is not aligned with what I value? For some people, the realization is enough to transform their lives. For others, it is a process. But awareness is the most important thing, because once you know something, you cannot un-know it." \pm

THE BIG DEA

Knowledge in Action New University provost Mary C. Boyce will put Columbia's scholarship to work on some of the world's most pressing problems

his summer, Mary C. Boyce, a prominent mechanical engineer who served for eight years as dean of the Fu Foundation School of Engineering and Applied Science, became the University's provost, or chief academic officer. The first woman and the first engineer ever to hold the position, she now oversees faculty appointments and tenure decisions, directs the development and implementation of Columbia's academic plans and policies, and supervises the work of its faculties, departments, institutes, and research centers.

Boyce, who came to Columbia from the Massachusetts Institute of Technology in 2013, has chalked up an impressive list of achievements in her academic career. As an expert in nanotechnology and materials science, she has pioneered new ways of modeling and developing synthetic materials that are found in vehicles, protective equipment, sporting goods, and many other products. As a professor, mentor, and department head, she has been a passionate advocate for women in education and research in the STEM fields (science, technology, engineering, and math). And as dean of Columbia Engineering, Boyce elevated the stature of many of the school's degree and research programs and increased the diversity of its faculty and students. She also led a capital campaign, called Engineering for Humanity, that raised more than \$300 million and forged new collaborations between engineers and scholars across the University to amplify the field of engineering's impact on challenges facing humanity.

So what are Boyce's goals as provost? And how might her background as an engineer inform her perspective in that role? *Columbia Magazine* spoke with Boyce about these topics and more.

You've assumed the position of provost at a critical moment, as Columbia is returning to campus life after the pandemic. What challenges do you see ahead?

I like to focus more on the opportunities ahead. Of course, COVID-19 presented challenges, but the members of our University community also became more deeply engaged with one

another and formed incredible bonds as we confronted those challenges. The intensity of our community spirit was evident early on in the pandemic, as we quickly adapted and innovated to deliver world-class education to our students, no matter where they were. Our labs rapidly rebounded to maintain progress on fundamental research, while at the same time faculty and students from across our schools and institutes expanded their efforts to conduct research on the disease and to design and produce personal protective equipment for health-care workers. I think these experiences have built a stronger, more resilient Columbia community. Moving ahead, I want us to build on this unity and connectedness and to consider the future that lies before us and how we as Columbians can think boldly about what we can accomplish together. The Office of the Provost is uniquely positioned to understand and support the talent, programs, and future directions of each school and to identify collective opportunities that can lead to even greater impact in our research, our teaching, and our service to the world.



You have always been a strong advocate for interdisciplinary research. Why is it so important to the future of Columbia?

Here at Columbia, one of our strengths is in what I call pan-disciplinary research, which involves collaborations between disciplines that haven't traditionally intersected. We have engineers working with journalists and with clinicians, neuroscientists teaming up with social scientists and artists, climatologists collaborating with economists and policy experts, and so much more. Columbia is particularly well positioned to show leadership in pan-disciplinary research because the University has a depth of expertise in so many different fields from the natural sciences to the humanities to our many programs focused on the public interest, from social work to public health to urban planning. Columbia is unsurpassed in its capacity to understand the world's most urgent challenges and to develop transformational solutions to address them.

Columbia's impact is further amplified by our presence in a global city that is the locus of so many institutions, a city where many different industries and ideas converge. In New York City, our faculty and students — who come from across the nation and around the world — witness pressing challenges as they are first emerging, and they are at the forefront of efforts to address them. Indeed, Columbia attracts students and faculty who have this mindset of being engaged with the world.

This all builds a collective sense of excitement at Columbia right now because of how boldly we're thinking about the role of collaboration in our University's future, both in terms of our scholarly leadership and our impact on society. We see this in the formation of the new Columbia. Climate School, the Zuckerman Mind Brain Behavior Institute, the Columbia Nano Initiative, the Data Science Institute, and Columbia World Projects, all of which bring together leaders and scholars from multiple disciplines to tackle important scientific and social challenges. It is at the interfaces of academic disciplines that the most exciting new discoveries and innovations can emerge.

You helped to make a lot of connections like this during your tenure at the engineering school. How did you do it?

Some of it happens organically. Curiosity drives faculty and researchers to find people in other fields who can enrich their own work and with whom they can together have a greater impact. But you can also encourage collaboration by bringing people from different parts of the University into the same room and then providing seed funding for new joint research and education. For example, during my time as dean, we'd periodically hold forums or dinners to discuss pressing topics, such as engineering's impact on health and medicine or on sustainability and climate, inviting faculty from across engineering and from other schools. Inevitably, once people start talking, opportunities for collaboration arise, and the next thing you know, interdisciplinary teams of researchers begin to work together.

The curriculum and cocurricular activities at Columbia Engineering also seek to promote interdisciplinary thinking among students. The school has in recent years launched joint-degree programs with the journalism and business schools, as well as a data-science degree offered in partnership with the Graduate School of Arts and Sciences' statistics department

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and the Data Science Institute. Columbia Engineering has also offered courses that are team-taught with faculty in liberal arts, public policy, business, and law to promote the use of more sophisticated analytics in those areas, as well as entrepreneurial workshops and courses in collaboration with the medical school. The school's introduction of design challenges for students — which are projectbased sprints to address timely topics — world to make a positive impact. We'll be asking: Where are the opportunities for putting academic knowledge into action more rapidly? What might the barriers be, and how can we minimize those? How can we provide the right kinds of support and structure to propel such efforts? And how do we better facilitate partnerships with government, industry, and the nonprofit sector in order to translate knowledge into solutions?

"Columbia is unsurpassed in its capacity to understand the world's most urgent challenges and to develop transformational solutions to address them."

has attracted participation from across Columbia to work together on actionable solutions to societal challenges, including diseases like Ebola and COVID-19, environmental and urban challenges, mobilizing the US Census's count in New York City, and more.

President Lee C. Bollinger and other members of Columbia's senior leadership have begun to articulate a new core mission for the University, which they call its Fourth Purpose. What is this new mission?

The Fourth Purpose complements the University's traditional missions of teaching, research, and public service; it's all about translating knowledge into solutions to major societal challenges like climate change, access to energy and clean water, economic inequality, and cybersecurity threats. The Office of the Provost will take a lead role in advancing the Fourth Purpose, and my staff and I will be looking for ways to support faculty and students who are interested in bringing their knowledge out into the Columbia World Projects is emblematic of the Fourth Purpose and will continue to spearhead convenings and collaborative projects; I envision a great partnership between Columbia World Projects and the Office of the Provost as we advance this transformative initiative, taking advantage of the breadth, depth, and beauty of the entire University to better tackle real-world problems.

What are your other goals?

Of course, my basic goal is to advance excellence across the entire University in talent, education, research, service, and the type of translational work we've been discussing. I still have a lot to learn, and a lot of thinking to do, about how to advance all of these elements of our mission. A key priority is attracting the best faculty, students, and researchers. And an important dimension of that is ensuring that we create an environment and culture that helps us attract and support talent from diverse backgrounds. Diversity can mean many things, including welcoming people whose personal perspectives, countries of origin, or gender, racial, ethnic, or socioeconomic backgrounds are traditionally underrepresented. Attracting diverse talent is vital because diversity of thought and perspective influences the intellectual questions and challenges that we choose to pursue. It also fuels innovation, because if the people working on a creative project all think alike, they make fewer breakthroughs. Diversity is key to our intellectual leadership and impact.

Promoting educational innovation is another one of my goals. Every Columbia school has been actively innovating in how we teach students, particularly during the pandemic. The University has an amazing Center for Teaching and Learning that fosters collaborative learning across disciplines and supports the effective use of new technologies. I'd like to see Columbia further experiment with new ways of expanding our educational reach and impact, particularly as we recognize the convergence of different fields and interdisciplinary thinking, as well as the increasing need for lifelong learning in our rapidly evolving knowledge-based economy and globalized world.

Columbia's engineering school made remarkable progress in diversifying its student body and faculty in your time as dean.

The so-called STEM fields have historically had challenges attracting diverse talent. I've been pleased to see how this has been changing over the last decade or so. At Columbia Engineering, we were able to double the number of women faculty and to attract an undergraduate student population that is one-half women in our entering class, while also making strides in our graduate-student population. We have recently had parallel success in attracting students from historically underrepresented racial and ethnic backgrounds to our undergraduate programs, and we aspire to make further inroads in our graduate programs and our faculty. Of course, we need to remain vigilant and continue this momentum. Across Columbia, our department chairs in the STEM fields and beyond are deeply committed

to expanding racial and ethnic diversity among our students and faculty. In particular, I am excited to be a part of new initiatives that focus on building pathways to attract talent to graduate programs.

What was your experience like starting out in the field?

When I was an undergraduate at Virginia Tech in the late 1970s, there simply weren't many women studying engineering. So that was a bit of a challenge. It was a time when there was inherent pressure to demonstrate that you belonged in engineering — that you were not only capable but excellent. While the number of women in the field of engineering has generally improved, there has been uneven success across academia and in some industries. With respect to historically underrepresented minorities, these challenges are even greater. So we all have to recognize that there is much work still to be done. I was fortunate that many of my professors, who were all men, were very supportive. This was the case at Virginia Tech and at MIT, where I earned my PhD. It is imperative that all students know that they have that recognition and support for their capabilities and talents. That made a big difference for me, and it had a lasting impact, because it gave me the encouragement to go on to graduate school and academia. It also inspired me to be an effective mentor to my own students.

Had you received much encouragement when you were younger?

My parents recognized that I found great joy in math and physics and that I was very good at those subjects. They were supportive but not pushy. I was born right here in Inwood and grew up in New Jersey as the second oldest of seven children, and my parents always stressed the importance of education, hard work, and perseverance. At the same time, they let each of us find our own way, since we are quite different from one another. This shaped me and gave me confidence in my studies and in my life. I was also influenced by my grandparents and their history - they each came to New York City from Ireland as a young adult with

little money or education. They were wonderful people who showed great courage and ambition leaving their home and finding their way in the city; they worked extremely hard at difficult jobs to build a life for their own children and for me, my brothers, and my sisters.

As a graduate student and professor at MIT, you did groundbreaking work in mechanical engineering. Can you explain the nature of your research?

I'm a mechanical engineer who works in an interdisciplinary area that merges fundamental mechanics - which itself is based in mathematics, physics, and, in recent years, chemistry - with the study of the microstructure and behaviors of physical materials. More specifically, I study the structure of materials from the nanoscale (the level of atoms and molecules) all the way up to the macroscale (where particles combine to make complete materials). Most of my research has focused on the complex mechanical behaviors of soft polymers and composites. These materials are remarkable in their ability to stretch and deform, while storing the energy of their deformations and then recovering afterward or dissipating the energy to absorb or cushion a physical impact. My work has been theoretical, computational, and experimental, with an emphasis on developing predictive models for design. Some of the models that my colleagues and I have developed are incorporated into major software programs that engineers use when designing materials and components found in automobiles, airplanes, and biomedical devices, as well as in sporting goods and protective equipment.

What inspired you to enter administration?

I'm someone who feels great satisfaction and joy in research, in pursuing the puzzles of a material's structure and function, and in formulating models and experiments to understand, to predict, and to design. Part of this also involves collaborating with students and colleagues in different fields. My entry into leadership was connected to my research: I designed and led multidisciplinary teams of faculty and students on large-scale challenges. Over the course of my career, I've come to see that I can have a bigger impact on my field, and on higher education in general, by taking on leadership positions. In my last few years at MIT, as chair of the institute's mechanical-engineering department, I saw that engineering disciplines were converging with other fields to develop innovative solutions to societal needs. Engineering knowledge and thinking were becoming more broadly fundamental. At Columbia, I recognized that engineering and applied science were poised for such a renaissance.

At the same time, we need to be sensitive to how technological advancements can both do tremendous good and have unintended consequences. For example, artificial intelligence, while improving many aspects of our lives, is also raising serious concerns about the amount of trust we place in algorithms, like the potential for bias in their results or the promotion of misinformation. Simultaneously, areas in health and medicine are poised for dramatic advancements, where new linkages with engineering fields will help to usher in this future. Part of the reason I came to Columbia to lead the engineering school was that I wanted to be in a place where engineers have the opportunity to collaborate with experts and scholars in diverse fields - for example, addressing the ethical, legal, and social consequences of our work or tackling crucial challenges in public health or medicine or climate. As engineering dean, I enjoyed keeping in close contact with our sister schools. And now, as provost, I'll be looking for opportunities to forge new connections among all the University's academic programs, acting as a sort of intellectual integrator, if you will. The level of expertise that can be found across so many fields at Columbia is without parallel. To identify solutions to complex problems such as climate change, water and food insecurity, lack of access to health care, and racial and social injustice, academics will need to work across disciplinary barriers - and Columbia is positioned to lead this bold future. was

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FRONTIERS OF RESEARCH AND DISCOVERY



African diamonds may reveal mysteries of the deep earth

team of geologists led by Yaakov Weiss of Columbia's Lamont-Doherty Earth Observatory have developed a new way to date and chemically profile diamonds, a breakthrough that could help scientists answer fundamental questions about our planet's early history, the creation of the continents, and geological processes that continue to unfold today.

Diamonds, which form one hundred miles or so below ground and are then brought to the surface by volcanic activity, have long been scrutinized by scientists for clues about what lies below us deep in the earth. But they hold their secrets tightly. Crystals cannot be dated using radioactive-decay techniques, because they are made of pure carbon, which is chemically inert. Scientists have therefore resorted to dating tiny flecks of more reactive minerals, like garnet or zircon, which are sometimes encased within diamonds. But this strategy is imperfect, because scientists have no way of knowing if the baked-in minerals formed long before the diamonds did.

So Weiss and his colleagues devised a better method: they extract and analyze small droplets of liquid preserved within lesserquality diamonds. "Diamonds form when liquefied elements crystallize, and some diamonds still have little pockets of that same fluid trapped inside of them," Weiss says. "The fluid is the matter out of which the crystal formed. So it's a perfect time capsule, providing a window directly into the diamond's origins."

In a recent issue of the journal *Nature Communications*, Weiss and his collaborators report the results of their analysis of fluid droplets drawn from ten diamonds found in mines in and around Kimberley, South Africa. The researchers say that they were able not only to determine the diamonds' ages — the samples ranged from 85 million to 2.6 billion years old — but also to glean valuable insights into the geological

processes that were occurring underground when they formed. For example, by assessing the relative amounts of carbonate, silica, and saline present in fluid from individual diamonds, the authors conclude that some of them formed when a giant slab of oceanic crust smashed into, and then dove underneath, the edge of the African continent some hundred million years ago. The study thus provides evidence for an idea that was once considered improbable but which has been gaining currency among scientists: that diamonds may contain carbon recycled from the earth's surface.

Weiss says that his team's techniques could be useful to geologists working in other diamond-rich areas of the world, including Australia,

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SCIENCE HISTORY IMAGES / ALAMY

Brazil, northern Canada, and northern Russia. They could help disentangle the deep histories of

those regions and give a better understanding of our planet's ongoing evolution. Studying diamonds, he says, could shed light on how geological phenomena on the earth's surface — the barely perceptible movements of continents, oceans, and mountains, for example are influenced by turbulence deep underground. "These are really big questions, and it's going to take people a long time to get at them," says Weiss. "But hopefully we've provided new tools and ideas for figuring out how these things work."

New clinic will treat Lyme disease long-haulers

yme disease, a tick-borne illness caused by the bacterium *Borrelia burgdorferi*, is one of the fastestspreading infectious diseases in the United States, striking nearly five hundred thousand people annually. It is also among the most difficult conditions for physicians to diagnose and treat, since it is not easily detectable in blood tests and can attack the body in different ways, causing a multitude of ailments that vary from person to person.

In response to this growing publichealth threat, a group of Columbia physicians who conduct research on tickborne illnesses and who specialize in treating the most complex cases are now dramatically expanding their efforts. With a \$16 million gift from the Steven and Alexandra Cohen Foundation, the group, led by Brian Fallon '85VPS, '85PH, a professor of psychiatry at Columbia University Irving Medical Center (CUIMC) and the director of Columbia's Lyme and Tick-Borne Diseases Research Center, recently launched a new clinical program, the Cohen Center for Health and Recovery from Tick-Borne Diseases. It is the first in New York City dedicated solely to treating Lyme and similar conditions, like anaplasmosis, babesiosis, and Rocky Mountain spotted fever. Fallon says that the Cohen Center, while providing clinical services to patients in all stages of disease, will specialize in helping those who suffer from chronic health problems that appear to be the result of infections contracted months or even years earlier.

"Like COVID-19 'long-haulers,' many people with tick-borne diseases experience a cascade of health problems that can persist long after the initial, acute stage of their illness is over," says Fallon, who is directing the Cohen Center. He notes that as many as one in five people treated for Lyme disease goes on to develop a chronic condition that the US Centers for Disease Control and Prevention calls Post-Treatment Lyme Disease Syndrome (PTLDS), whose symptoms can include severe fatigue, joint and muscle pain, headaches, light and sound sensitivity, memory and other cognitive problems, and sleep disorders. "People with PTLDS often suffer for years without finding any relief," says Fallon. "Their doctors, if they aren't familiar with the latest research on tick-borne disease, may not recognize that these health problems can stem from an

earlier infection."

"Many patients with chronic symptoms related to tick-borne diseases are misdiagnosed with conditions such as depression, chronic fatigue syndrome, or even psychosomatic disorder," says CUIMC neuropsychiatrist and Cohen Center codirector Shannon Delaney.

The Cohen Center builds upon work that Fallon, Delaney, and a handful of other Columbia physicians previously did at a much smaller diagnostic clinic at CUIMC. That clinic could accommodate only about ten patients a month. The Cohen Center, when fully staffed with six new Columbia doctors — including specialists in family, integrative, and behavioral medicine — will be able to serve ten times that number.

Fallon and his colleagues at the Cohen Center approach their work with the tenacity of private investigators, poring over patients' old medical records, ordering batteries of blood tests, and conducting their own in-depth physical, psychiatric, and neurological evaluations, which can include brain scans. When needed, they bring in Columbia immunologists, infectious-disease specialists, rheumatol-

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ogists, and neurologists. "To understand the nuances of each patient's condition and to come up with a personalized treatment plan, you need to have multiple physicians involved, bringing different perspectives," says Fallon, who is a pioneer in describing the neuropsychiatric effects of Lyme disease. "Our initial patient evaluations are extremely thorough, often running for several hours."

Based on the clinical work that his team has done in the past, Fallon expects that he and his colleagues will be able to provide new diagnostic insights or treatment options for about two-thirds of the patients they see at the Cohen Center - an impressive number considering that most of the patients who come to his office suffer from health problems that other doctors have been unable to treat, or even name. As for treatments, the Columbia doctors have a range of interventions to consider. For example, if they suspect that someone is still infected

with bacteria that they contracted from a tick bite, they may administer a new course of antibiotics; if they believe that a patient's immune system overreacted to an earlier infection and has since been stuck in overdrive, attacking healthy tissues, they will that non-pharmaceutical interventions including yoga, meditation, dietary changes, and various types of behavioral therapy can help relieve the pain, sleeplessness, fatigue, mental fogginess, and mood problems that people often experience when



Brian Fallon

consider treatments to calm the immune system; or if they believe that a patient is suffering from permanent tissue damage caused by the initial infection, they may recommend pain-management therapies, strength-building exercises, and energy-boosting lifestyle changes.

"There's a growing body of research that suggests battling chronic illnesses," says Fallon, whose own team recently conducted a study on the therapeutic effects of kundalini yoga. "At the Cohen Center, we're very openminded about what might help people."

The new gift to Columbia is part of an ongoing effort by the Connecticut-based Steven and Alexandra Cohen Foundation to improve care for Lyme disease. The foundation, which is the largest private funder of Lyme-disease research in the US, is inspired in its work by Alexandra's own battle with the illness.

The Cohens' gift is also supporting the creation of a national clinical-trial network that Fallon will run in conjunction with Lymedisease researchers at the John Hopkins University School of Medicine and Children's National Hospital; the members of the network, by pooling their clinical data, hope to expedite the identification of new treatments.

"Tick-borne illnesses have long been shrouded in mystery, with scientists disagreeing on some of the most fundamental questions about how they affect the body, especially over the long term," Fallon says. "But there's been a tremendous amount of scientific progress made in the past few years, and I think we're finally ready to start translating that knowledge into safer, more effective treatments."

WHAT THIS BIRD CAN TEACH US ABOUT MEMORY

The tufted titmouse, a songbird native to the eastern US, has long amazed ornithologists with its ability to remember thousands of locations where it has stashed away seeds for future consumption. Now a team of Columbia neuroscientists led by Dmitriy Aronov '05SEAS has discovered the secret to the bird's extraordinary powers of recall, finding that it has a specialized brain region for making mental maps of its physical surroundings. The researchers say that their work could one day be used to inform the treatment of neurodegenerative disorders that damage memory, including Alzheimer's disease.



P: BRIAN DIVITO; BOTTOM: STEVE BYLAND / SHUTTERSTOCK

Can AI explain vaccine hesitancy?

his summer, the US entered a strange new phase in its fight against COVID-19, as the challenge of producing and distributing hundreds of millions of vaccine doses was finally conquered, only to be replaced by a new obstacle: persuading Americans to take them.

So how do you turn vaccine skeptics into adopters?

have also found that people in different segments of the anti-vaccination community tend to use distinct metaphors, symbols, and imagery when discussing their beliefs, thus enabling the Columbia team's AI programs to automatically identify skeptics and deduce their specific viewpoints. The researchers say that if public-health officials were to target these individuals with outreach



Anti-vaccine activists protest in Albany, New York.

To find the answer, a group of Columbia physicians, computer scientists, and literary scholars are now using artificial intelligence to track people's public conversations about the coronavirus vaccines on social media. By analyzing the language employed in millions of Facebook posts, tweets, and YouTube and Reddit comments, they hope to gain a deeper understanding of citizens' concerns and ultimately help public-health organizations craft more compelling pro-vaccine messages.

The researchers, led by emergencyroom physician Rishi Goyal '01VPS, '10GSAS and comparative-literature scholar Dennis Tenen, say that their computer-driven analysis has already yielded useful insights, showing that the anti-vaccination community is surprisingly heterogeneous, with vaccine skeptics motivated by a wide variety of political and ideological beliefs. They campaigns that speak to their concerns, using language that is familiar to them, tremendous progress could be made in the fight against COVID-19. For example, they suggest that vaccine skeptics who are a part of the "medical freedom" movement, which opposes any public-health policies that curtail personal liberties, might respond favorably to messages that

encourage people to exercise their *right* to protect themselves against disease. Similarly, they say that Americans who distrust authority figures in government and academia might be persuaded to get vaccinated if they see testimonials from fellow residents who opted to get the shot not because anyone else told them to do so but because of research they did on the topic themselves.

The Columbia team, whose work is supported by the Columbia World Projects initiative, is collaborating with Maine's Center for Disease Control and Prevention and the health department of Ulster County, New York, to craft microtargeted vaccine messaging, with the goal of entering additional partnerships across the country in the months ahead.

"If we can show that our methods were able to increase vaccine uptake and vaccine confidence, that would be incredible," says Goyal.



Smog's threat to the brain

vidence has been mounting for years that air pollution can affect our bodies in surprising ways, increasing our risk of developing not only respiratory ailments like asthma but also liver disease, heart conditions, strokes, and dementia.

Now a team of Columbia public-health researchers led by Andrea Baccarelli has discovered that our brains may be even more vulnerable to air pollution than previously known. The researchers analyzed data gathered by the Normative Aging Study, a government-led project that has been tracking the physical and mental health of thousands of people in Boston for decades, and found evidence that even temporary bumps in air-pollution levels, lasting just a few days or weeks, can be harmful to brain health. Past research had documented the negative health effects of long-term exposure to air pollution, but the effects of short-term exposure had not been closely examined.

In an interesting twist, the scientists found that taking aspirin or ibuprofen may mitigate the effects of air pollution, possibly by reducing brain inflammation.

EXPLORATIONS When rights collide

he US legal system has long provided a model for judiciaries worldwide. But new research by Columbia law professor Jamal Greene shows that there is at least one way that US courts are falling behind global best practices and, in doing so, missing a crucial opportunity to tamp down political polarization in this country.

The problem, according to Greene, is in how US courts deal with cases that

involve dueling claims to civil liberties, such as when a business owner's desire to express his or her religious beliefs collides with an LGBTQ person's demand to be treated equally under the law. Greene says that US judges, accustomed to viewing constitutional rights as absolute and unassailable, tend to look at such cases as zero-sum conflicts. Hence they consider it their responsibility to decide which party has the stronger claim to constitutional protection, a question they answer in part by considering which

of the rights being cited is grounded most deeply in US legal tradition. But ranking people's civil liberties in this way, Greene says, leaves no room for compromise. This often results in judicial rulings that hand total victory to one side and convey to the losers and to countless other Americans who identify with them that they are inconsequential in the eyes of the law.

Greene describes numerous examples of this polarizing approach to justice in his new book, *How Rights Went Wrong: Why Our Obsession with* Rights Is Tearing America Apart. One involves the case of the Christian baker in Colorado who in 2012, citing his First Amendment rights to free speech and religious freedom, refused to bake a wedding cake for two gay men. The couple filed a complaint under the Colorado Anti-Discrimination Act that ultimately resulted in a lawsuit, Masterpiece Cakeshop v. Colorado Civil Rights Commission. When the US Supreme Court heard the case, it ruled for the passions, making it harder for opposing camps to work toward compromises on hot-button issues.

"When recognizing our neighbor's rights necessarily extinguishes our own, a survival instinct kicks in," he writes. "Our opponent in the rights conflict becomes not simply a fellow citizen who disagrees with us, but an enemy out to destroy us."

For alternative approaches, Greene looks to Europe, where he finds a legal

philosophy called "proportionality." Judges who adhere to the principles of proportionality tend to concern themselves less with determining which rights should take precedence over others and more with finding fair and reasonable solutions to conflicts that respect the interests and dignity of both sides, often by requiring them to compromise. For example, if European judges had heard Masterpiece Cakeshop, Greene suggests, they might have instructed the parties to explore whether there was another artisan bakery



baker — an example of US judges' tendency to treat as sacrosanct those rights that are listed in the Constitution's first few amendments, such as freedom of speech, freedom of religion, and the right to bear arms.

In addition to LGBTQ people, Greene observes, proponents of gun restrictions, affirmative action, and disability rights have frequently found themselves on the short end of such legal clashes. Too often, he says, judges issue hard-line interpretations of constitutional law that inflame partisan in the vicinity to which the baker could have subcontracted the order, or to which the gay couple could have simply taken their business instead.

"Some Americans, maybe even most, wouldn't like these solutions," Greene acknowledges. "But the job of the courts in a pluralistic democracy isn't to please their base. It's to work to resolve conflicts, to ratchet them down rather than up ... Too often, US courts ... see their job in constitutional cases as declaring who's right. The answer, so often, is neither side — or both."



Spot a few gray hairs? Relax and they could disappear

he idea that stress will turn your hair gray has long been dismissed as a myth by many scientists, but a team of Columbia researchers has now shown that the graying process is actually kickstarted by stress hormones — and that it may even be reversible.

The study, the first of its kind on human subjects, appears in a recent issue of the journal *eLife*. It was led by Martin Picard, an associate professor of behavioral medicine at Columbia University Irving Medical Center whose work focuses on the biology of aging. Picard and his colleagues, in an attempt to understand why some strands of hair succumb to the aging process before others, collected samples from volunteers who were just beginning to go gray. They looked specifically for hairs with a distinctive two-tone appearance: fully colored at the tips but ashen at the roots. By comparing the coloration patterns against "stress diaries" that participants kept to document their moods over time, the researchers came to the unmistakable conclusion that anxiety can drain hair of color. Picard's team even revealed the molecular mechanisms at work, finding evidence that hair cells

respond to stress hormones by shutting down production of dozens of their own proteins, some of which are involved in making pigments.

But what really surprised the researchers was that once participants recovered from a particularly stressful event, such as a romantic breakup, gray hairs often became colored again. "There was one individual who went on vacation, and five hairs on that person's head reverted back to dark," says Picard.

While reducing stress in your life is always a smart move, the researchers say that the effects on hair color are sporadic and temporary, since stress is only one factor among many that influence the age-related breakdown of cells. But even if the scientists haven't found the cure for gray hair, their study could have broader implications.

"Understanding the mechanisms that allow 'old' gray hairs to return to their 'young' pigmented states could yield new clues about the malleability of human aging in general and how it is influenced by stress," Picard says. "Our data add to a growing body of evidence demonstrating that human aging is not a linear, fixed biological process but may, at least in part, be halted or even temporarily reversed."



Smarter vaccine delivery A team of Columbia public-health researchers led by Jeffrey Shaman '03GSAS has

found that COVID-19 mortality rates around the world could be significantly lowered if vaccines were distributed based on county-level socioeconomic indicators and health vulnerabilities, such as the proportions of people living in nursing homes or with kidney disease.

Urgent need for sustainable agriculture

Greenhouse-gas emissions from agriculture and food-distribution systems have long been underestimated and may account for up to sixteen billion tons of CO₂ annually, representing one-third of the human-produced total, according to a new global analysis by scientists at Columbia University, the UN Food and Agriculture Organization, NASA, and New York University. The researchers urge all nations to adopt more accurate methods of calculating such emissions and to double down on efforts to create more sustainable food systems.



Keep it simple The excessive use of jargon by academics is often a sign of personal insecurity, as evidenced in part by its more frequent appearance in the works of lower-status professors, say researchers at Columbia Business School.

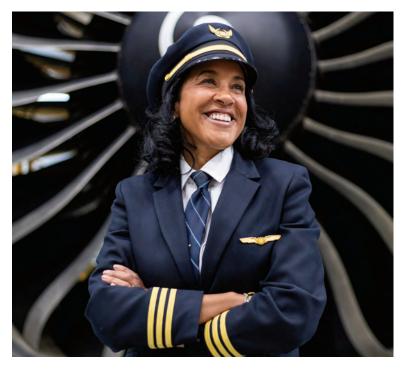
Addiction risks follow breast surgery

Columbia medical researchers led by Dawn L. Hershman '01PH, Jason D. Wright, and Jacob Cogan have found that large numbers of women recovering from mastectomy and reconstructive surgery become dependent on opioid painkillers and sedatives such as Ativan and Ambien, which should prompt doctors to limit the quantity and duration of such prescriptions and educate women about the risks.

Influence for sale, cheap Every dollar that US companies spend on political lobbying yields twenty dollars in future earnings, which is a much higher return than they see from investments in R&D or advertising, according to a new study by Columbia accounting and auditing expert Shivaram Rajgopal. He says that his team's findings underscore the need for greater transparency around political spending.

NETWORK

YOUR ALUMNI CONNECTION



Pilot Program Carole Hopson '90JRN wants 100 Black women to take flight

arole Hopson '90JRN vividly remembers the first time she flew a plane — the feel of the controls in her hand as she lifted into the air, the sun glittering on the runway, the view of the horizon from the cockpit window.

"It was forty-five minutes of my life, but it changed me forever," she says.

Hopson was thirty-two years old when she took her first flight lesson, and it would take her nearly twenty more years to land her dream job, as a commercial pilot with United Airlines. Now she has a new mission: making her profession more accessible to other Black women.

Even as a child growing up in the suburbs of Philadelphia, Hopson was enthralled by the idea of flight. She used to lie in her grandmother's backyard and watch the planes overhead, wondering where they were going.

"Honestly, it never even occurred to me that it was something I could do," Hopson says. "That was not presented as an option for a little Black girl with eyeglasses."

Instead, Hopson studied literature at the University of Virginia and journalism at Columbia, worked as a police reporter in New Jersey, and then switched to public relations, with stints at the NFL and Foot Locker. Her first flight lesson was a gift from her husband, who knew how much she loved flying and thought it would make a good hobby.

Hopson knew immediately that she wanted it to be more than that, but the training was prohibitively time-consuming and expensive. At the time, nearly three-quarters of commercial pilots came from a military background; to train as a civilian costs about \$150,000, and between flight school, logging enough hours to become certified, and completing a training program with an airline, it can take years.

For Hopson, it was even longer than expected. She delayed flight school for two years to save money. Then, just as she finished training, the events of September 11 upended the airline industry and made it difficult for her to find a job. Hopson decided to again postpone her dream and focused on raising her two boys, now teenagers. Still, she never gave up hope. Throughout her sons' childhood, she worked part-time as a flight instructor to get time in the air and practiced on a flight simulator, taking shifts in the middle of the night to log hours: "I did everything that I could do to keep flying."

In 2018, Hopson started flying fulltime for United and realized how few of her colleagues looked like her. "According to the FAA, less than 1 percent of commercial pilots are Black women," she says. "I often felt like the only one."

Hopson wanted to help other Black women overcome some of the hurdles that she had faced, and she has pledged to enroll one hundred Black women in flight school by 2035.

Hopson's approach is three-pronged. She visits high schools in targeted areas to increase awareness about flying as a career option. She is actively fundraising to reduce the financial burden of flight training. And she is working to recruit students at the Lieutenant Colonel Luke Weathers Jr. Flight Academy, a new Mississippi flight school named for a Tuskegee Airman that aims to diversify the airline industry and provide opportunities for Black student pilots. In November, Hopson plans to launch a nonprofit organization called the Jet Black Foundation, dedicated to these goals.

In addition to these efforts, Hopson has also written a novel based on the life of Bessie Coleman, the first Black woman to hold a pilot's license. Coleman, who was born into a family of Texas sharecroppers in 1892, learned to fly in Europe after being rejected from every American flight school. Hopson hopes that her story will resonate with other Black women. "I learned about Amelia Earhart and Charles Lindbergh in school. But I had never heard of Bessie Coleman until I became a pilot myself," she says.

Hopson says that as a Black woman, she has felt like an anomaly in most of the jobs she's had — as a journalist working the crime beat, in sports PR, and today. But she feels especially motivated to change the airline industry, since she loves it so much.

"The fact that a job like this exists still amazes me," Hopson says. "Why wouldn't I want to share it?"

- Rebecca Shapiro

4 Companies to Help Kids Make the Grade



Mrs Wordsmith

Founded in 2015 by Sofia Fenichell '96BUS, a longtime business professional and mother of two, Mrs Wordsmith helps kids ages four to thirteen learn to read and write and improve their vocabulary and spelling skills. Through picture books, workbooks, card games, stickers, and — in the near future — apps, the London-based company sets out to make supplemental learning whimsical and fun.



Hopscotch

Samantha John '09SEAS landed a \$550,000 investment on ABC's *Shark Tank* earlier this year for her education-technology app Hopscotch. The app, which she developed in 2012 with Jocelyn Leavitt '07BUS, teaches kids ages ten through sixteen programming skills by allowing them to create their own games and animations, which they can share with others on the platform. To date, Hopscotch has been downloaded more than twenty-four million times.



Miles to Row

Betsy Marsolan '03SEAS worked for more than a decade in operations and product management before founding Miles to Row, an online children's book club celebrating diverse stories and authors. Parents can sign up for a monthly subscription to one or three publications. With each purchase, the company donates a book to a library, school, or nonprofit.



Madeleine Editions

Madeleine Editions, a Paris-based independent publisher, produces colorful children's e-books in French, English, and Mandarin. Founded in 2018 by Eva Lou '11SOA, a Taiwanese-born writer who has also lived in the United States, Korea, and France, the company has published eight original books celebrating multiculturalism and multilingualism.

NETWORK



Jean Paul Laurent teaches schoolchildren in Haiti how to properly brush their teeth.

The Smile Saver

ompared with crises like world hunger, deadly viruses, and poor sanitation, dental cavities might sound like a relatively minor humanitarian concern. But according to Jean Paul Laurent '17SIPA, tooth decay is "one of the world's most underpublicized health crises," and he's determined to tackle it one mouth at a time.

"The World Health Organization estimates that nearly 3.58 billion people are affected by oral diseases," says Laurent, the founder and CEO of Unspoken Smiles, a nonprofit that promotes preventive dental care for children in underserved communities. "By the time you're twelve or thirteen, you have most of your permanent teeth" — teeth that, without proper attention, can be more susceptible to aggressive decay, infections, and gum disease.

Since 2014, Unspoken Smiles has taught approximately nine thousand kids the art of effective oral hygiene. The nonprofit collaborates with schools around the world — in Haiti, the Dominican Republic, Guatemala, El Salvador, Costa Rica, Romania, India, and Iraqi Kurdistan, as well as low-income neighborhoods in New York City — to integrate dental care into daily learning. Over the course of twelve weeks, students are given lessons on everything from the correct way to brush and floss to the harmful effects of sugar. "We want children to develop healthy habits for life," explains Laurent. The organization also gives each student a one-year supply of toothbrushes and subsidizes dental screenings and, if needed, follow-up care from local providers.

Although oral disease can affect anyone across the socioeconomic spectrum, a lack of access to high-quality treatment inevitably affects some populations more than others. "In many of the communities we serve, people don't see dentists for years," says Laurent. When people in under-resourced areas do seek care for painful cavities or abscesses, "teeth that could be treated with a simple filling or root canal often get pulled. You end up leaving beautiful children and adults with missing teeth, which can impact their health, diet, and self-esteem."

Laurent, who moved to the United States from Haiti when he was twentyone ("with a suitcase and a dream," as he puts it), was inspired to start Unspoken Smiles after the 2010 Haitian earthquake. At the time, he was studying dental hygiene at NYU with plans to become a dentist. But after traveling to his home country to help with relief efforts - specifically, providing free dental screenings and cleanings for local children — he had a change of heart. "People were lining up to access services, and I realized there was a strong need for this kind of work," he says. Laurent finished his dental-hygiene degree in 2011, but he pivoted to a career in nonprofit leadership and piloted Unspoken Smiles in Haiti while studying at Columbia's School of International and Public Affairs.

Laurent says that by expanding access to oral-health education and care, he hopes to inspire not only better brushing habits but also a new generation of providers. In 2020, Unspoken Smiles introduced a fellowship program aimed primarily at young minority women who want to start careers in dentistry. The participants have served as instructors in the organization's education programs. "When children see a person of color who looks like them coming to their school to teach them about oral health, some will be inspired to become dentists themselves one day," says Laurent. "Creating a pipeline that empowers more people to go into dentistry and ultimately serve their communities will be one of our greatest achievements."

– Julia Joy

UNSPOKEN SMILES BY THE NUMBERS 36,000 toothbrushes distributed 9,000 children served across 9 countries 120 volunteers recruited 6 fellows trained

ASK AN ALUM: HOW TO RAISE A BETTER CITIZEN



As the founder and CEO of Local Civics, an educationtechnology startup, **Beverly Leon '14CC, '20BUS** encourages kids and teens to become active members of their communities.

What led you to start Local Civics?

I was on the Columbia women's soccer team and spent a lot of time mentoring local youth through sports. After graduating, I landed a job on Wall Street, but a year later I left to pursue my dream of playing professional soccer. That brought me to Iceland, Italy, and the UK, where I continued to coach young players.

Those experiences helped me reflect on my own role as a citizen, particularly as I traveled across Europe and lived in different cities. I wanted to find a way to connect the young people I coached to their communities and empower them to be leaders. I retired from soccer in 2017, and in 2018 I started Local Civics while studying education policy at Oxford.

What does an effective civics education look like? It means not only teaching

young people about their constitutional rights but also providing them with a deeper understanding of how power operates — on a personal, community, city, state, and federal level. It means encouraging kids to pinpoint issues that interest them, then helping them find ways to get involved and make an impact.

Civic engagement will look different for everyone. It might be activated by a passion for art, science, or sport. My love of soccer made me want to participate in conversations about access to parks and other public spaces, so I started attending meetings of the local community board.

How do you tailor the information to kids?

Our platform, which is used by schools and youth organizations, offers a game-based learning model that helps middle- and high-school students explore their communities and build leadership skills. Students set goals and earn points for activities like completing relevant classwork, attending meetings at the local library, listening to a talk with a local public official, or joining their school's student council.

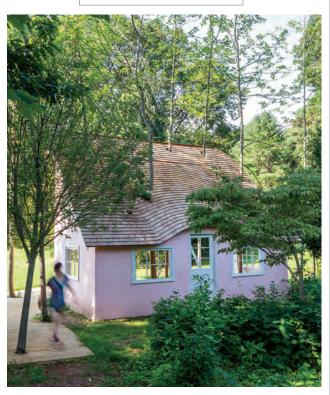
We also offer a custom curriculum to help students build core skills for effective civic participation. We teach them how to navigate local resources, identify stakeholders, and propose solutions for community challenges, whether it's the introduction of a composting program or the push for an extended city bus line.

Why is it important to reach K–12 students?

Civics has really slipped away from school curricula; it's barely funded in the United States. Only around 53 percent of eighteen-totwenty-nine-year-olds — my cohort — voted in the 2020 presidential election, and that was considered high. The rates of participation in local elections are very poor.

If the first time you're expected to participate in democracy is when you turn eighteen, you probably won't fully understand how your vote impacts your community and the things you care about. So many of the decisions that shape our lives are made through our participation in government and community life. Without a high-quality civics education, many of us would miss opportunities to elevate our own voices and hear the voices of others. — Julia Joy





THE GREAT BIRD BLIND DEBATE, a collaboration between David Brooks '09SOA and Columbia visual-arts mentor Mark Dion, is a unique meditation on birding. The installation, built on a bird sanctuary at the Planting Fields Foundation in Oyster Bay, New York, features a bird-watching structure by each artist. Brooks's *Budding Bird Blind* (above) is planted close to a series of saplings that will grow into and around the structure over the next decade, ensuring that the bird blind will slowly decay and become a true bird habitat.

NETWORK



Benjamin Clymer

This Watch Entrepreneur Turns Time into Money

here are watches, and then there are *watches*. The Omega Speedmaster MK40 is the latter — a self-winding wristwatch and stopwatch all in one, its beating Swiss heart powering eight hands that spin across three sub-dials in a riot of yellow, crimson, and white. The face — which glows in the dark, thanks to tritium-laced numerals — is protected by a dome of sapphire crystal. On the flip side rears Omega's trademark mythical seahorse — a symbol of water resistance.

For Benjamin Clymer '12JRN, the MK40 is *the* watch, his horological Rosebud. "Every time I would see my grandfather," Clymer recalls, "he would let me wear the Omega. And then, one day, when I was sixteen, I handed it back to him at the end of my visit and he just said, 'You know what? Keep it."

By that time, Clymer, who grew up in Rochester, had already discovered what he calls his "collecting gene." As a kid he started accumulating Bakelite rotary telephones. After phones, he moved on to radios. Baseball cards came next. "I was a really insular, introspective child," he says. "I found a kind of sanctity and peace in *things*."

The collecting gene is still dominant in Clymer but has found a new form

of expression. Today, at thirty-nine, he is the founder and executive chairman of Hodinkee, a watch website that is at once a media outlet, an online retailer, and an insurance agency. (For the name, Clymer Googled "wristwatch in other languages" and liked the humorous, unpretentious sound of the Czech word *hodinky*.) The company started as a blog about watches before eventually expanding into an authorized dealer and now brand partner - of dozens of high-end watch brands. Hodinkee has gained a tremendous following: over a million people visit the site each month, and last year the company raised tens of millions in venture capital from the conglomerate behind Louis Vuitton and from celebrity watch enthusiasts, including musician John Mayer. The funding round valued Hodinkee north of a hundred million dollars.

None of this was planned, says Clymer, who graduated from Syracuse University in 2005 and landed in a cubicle at the Swiss investment bank UBS. "I didn't like working in finance," he says. The Great Recession of 2008 came as something of a relief. Told he had six months before he would be let go, Clymer started blogging about watches.

He broke from the tradition of focusing obsessively on the cost of high-end timepieces, instead diving deep into the history of rare watches up for auction and writing nerdy dispatches on technological breakthroughs.

It wasn't long before he started hearing from readers who were actually going out and buying the watches he wrote about. "People would say, 'Hey, Ben, I read your story on the Paul

Watch out! Three of Clymer's favorite timepieces



Rolex Dayton a Cerachrom bezel

"Rolex is the master of pulling on the heartstrings and creating long-lasting products. Few brands have that sense of permanence."



A. Lange & Söhne "The Lange Lis a per

"The Lange I is a perfect watch. If I had one watch to wear every day, it would be this one."



Patek Philippe Nautilus, Tiffany-signed

"As a New Yorker, I have a love for Tiffany-signed watches, and I wear this one a lot. This is a New York watch." Newman Rolex Daytona. I went out and bought one.' It was *a hundred and twenty-five thousand dollars*. And I said, 'Holy shit, these guys are making big-time purchases based on the word of some idiot from Rochester.'"

Evidently, Hodinkee had found an audience, but Clymer's unemployment date was still barreling toward him. He set his sights on journalism school and Morningside Heights. With no clips to his name, he submitted some of the posts from his watch blog. It worked. "Getting into the J-school was really seminal for me," Clymer says. "Just in terms of believing in myself."

At Columbia, Clymer essentially lived two lives. For class, he trekked around the city, reporting on everything from triple homicides to sporting events. In his spare time, he continued to nurse Hodinkee along. Shortly after he graduated, *Time* magazine named Hodinkee one of its fifty favorite websites. *Forbes* offered Clymer a job as a lifestyle writer, but he declined: by that point, Hodinkee was making more in advertising than *Forbes* would have paid him.

"I just kind of saw the writing on the wall for traditional journalism jobs," says Clymer. "If you want to be a journalist today, you need to create your own job." He recently donated money to the J-school and would like to see the curriculum expand to include a course or program in entrepreneurship.

Traveling to the far reaches of the horological world (Hodinkee opened a Japanese branch in 2019), Clymer has seen them all — the watches and the *watches*. But one watch still holds great sentimental value for him: the MK40 given to him by his grandfather. For its tenth anniversary, Hodinkee teamed up with Omega to release a slightly updated version of the MK40, whose original Clymer still keeps close at hand.

"If this house were to burn down," he says, "that would be the one thing that I would grab. That watch is my life. It gave me this life."

- Ian Scheffler '12CC

NEWSMAKERS

• President Biden nominated Eric Garcetti '92CC. '95SIPA to be the next ambassador to India, Julissa Revnoso Pantaleón 'OILAW to be ambassador to Spain, and Michael Raynor '86SIPA to be ambassador to Senegal and Guinea-Bissau. Garcetti has served as mayor of Los Angeles since 2013. Reynoso, a former Columbia Trustee, is currently the chief of staff to First Lady Jill Biden; previously she was the US ambassador to Uruguay. Raynor, a career diplomat, has served as the US ambassador to Benin and Ethiopia.

• Amit Paley '10JRN, '11BUS was selected for the World Economic Forum's new class of Young Global Leaders — a group of people under forty from around the world who are committed to bettering their communities. Paley, a former journalist, is CEO of the Trevor Project, an organization that specializes in crisis intervention and suicide prevention for LGBTQ youth.

• Kanya D'Almeida '18SOA won the 2021 Commonwealth Short Story Prize, an award for unpublished short fiction written by a citizen of any country in the British Commonwealth. D'Almeida, who lives in Sri Lanka, was honored for her story "I Cleaned the —."

• Isolde Brielmaier '93CC, '03GSAS was named deputy director of the New Museum. Previously, Brielmaier served as a curator at the International Center of Photography.

• Two alumni projects won awards at the Cannes Film Festival this summer. Antoneta Alamat Kusijanović '17SOA and Frank Graziano '19SOA were awarded the Caméra d'Or for their feature film *Murina*, and **Jasmin Freitas Tenucci '20SOA** received a special jury mention for her short film *Céu de Agosto*.



 Eleven Columbia alumni and one student competed at this year's Summer Olympics in Tokyo. Charlotte Buck '18CC (above) and John Tanguay '20CC both rowed for Team USA -Buck as a member of the women's eight boat and Tanguay on the US Paralympic Team. Jakub Buczek '16CC, a native of Ontario, rowed on Team Canada's men's four boat. Nadia Eke '15CC represented Ghana in track and field, competing in the women's triple-jump event, and Yasmeen Al Dabbagh '19CC, called "the fastest woman in Saudi Arabia," represented her home country in the hundred-meter race. **Robb Paller** '**16CC**, a former star outfielder for the Columbia Lions, joined Israel's baseball team, and Maodo Lô '16CC played basketball for Team Germany. Isadora Cerullo **'I3CC** made her second Olympic appearance, playing rugby for Team Brazil. Three Columbians were on the American fencing team — Jackie Dubrovich '16CC and Nicole Ross '13CC, who are currently ranked second and third in the US respectively in women's foil fencing, and Jake Hoyle '16CC, the top-ranked American male épée fencer. Additionally, Columbia sophomore **Evita Griskenas** represented the US in rhythmic gymnastics.

BULLETIN

UNIVERSITY NEWS AND VIEWS



COLUMBIA RELEASES NEW CAMPUS SUSTAINABILITY PLAN

Over the past five years, Columbia has significantly reduced its greenhouse-gas emissions by improving the energy efficiency of its buildings, shifting to cleaner power sources, purchasing electric vehicles, and increasing recycling and composting rates.

Now the University has announced an ambitious new plan to further reduce its carbon footprint, with the ultimate goal of achieving net-zero emissions by mid-century. Plan 2030, created in consultation with Columbia climate experts and other scholars and operations specialists, offers a comprehensive set of sustainability strategies that will put Columbia on course to reduce its emissions by another 42 percent by the end of this decade and eliminate or offset them altogether by 2050. Among the plan's specific recommendations are for Columbia to switch entirely to emission-free electricity, to limit international business travel among faculty and staff, and to send zero waste to landfills.

"Plan 2030 will require transformational change across campuses, schools, and departments," wrote President Lee C. Bollinger in an e-mail announcing the effort. "Its success is heavily dependent on participation from all of us, at all levels."

He noted that Columbia's new sustainability plan aligns with global accords like the Paris Agreement, whose goal is to limit the rise of global temperatures to 1.5°C above preindustrial levels. "It is also driven by a recognition that addressing this crisis is, at its core, about advancing social justice and alleviating the burden on underserved and marginalized communities that are disproportionately vulnerable to the effects of climate change," Bollinger wrote. "The threats posed by the climate crisis demand collective action from our institutions in general and our universities in particular."

In related news, Daniel Zarrilli, the former chief climate policy adviser to New York City mayor Bill de Blasio '87SIPA, has joined Columbia as a special adviser on climate and sustainability issues. In this role, he will work closely with Columbia officials on efforts to achieve the University's decarbonization goals.

For more, visit sustainable.columbia.edu.

MORE DETAILS ON NEW CLIMATE SCHOOL

he Columbia Climate School has announced its first degree offering, a master of arts in climate and society that will be administered in partnership with the Graduate School of Arts and Sciences, where the program was previously housed. The program trains students to understand the effects of climate change on society and the environment: those beginning the program this fall represent the school's inaugural class.

The Columbia Climate School, which is the first new school established at the University in twenty-five years, is being jointly led by four prominent professors: Alex Halliday, a geochemist who also directs the Earth Institute; Jason Bordoff, a former White House energy adviser who directs SIPA's Center on Global Energy Policy; Ruth DeFries, a geographer who uses remote sensing to study changes in the planet's habitability; and Maureen Raymo, a marine geologist who studies the earth's climate history and also directs the Lamont-Doherty Earth Observatory.

In an e-mail regarding their appointments, President Lee C. Bollinger wrote: "I know this collaborative leadership arrangement is somewhat unique, but I am confident that in this case, given these four extraordinary people, this structure will ensure [the school's]



High-school students participate in a two-week educational program in Vermont hosted by the Columbia Climate School.

success." He noted that "each of these individuals brings unique and complementary areas of expertise to this endeavor; together they are already proving to be an excellent team."

Columbia officials say that the climate school will eventually serve as a hub for interdisciplinary climate research and education across the University, creating new climate-related courses for both undergraduate and graduate students and offering joint degrees in areas such as climate and law, climate and journalism, or climate and the arts.

TRUSTEES ESTABLISH PROFESSORSHIP IN HONOR OF KENNETH AND KAREITHA FORDE



The members of Columbia's Board of Trustees have established an endowed professorship in honor of the late Columbia physician Kenneth A. Forde '59VPS and his wife of sixty years, Kareitha "Kay" Forde, in the African American and African Diaspora Studies Department.

Forde, who taught clinical surgery at the medical campus for more than forty years, conducted groundbreaking research on colon cancer and pioneered the use of endoscopy as a diagnostic and surgical tool. One of Columbia's first African-American surgeons, he became a University Trustee after his retirement in 2006 and was a powerful advocate for minority students and faculty members.

Forde died in June 2019, two years after losing his wife, a nurse who worked with him to promote public awareness of cancer screening and prevention.

"Ken was a giant among Trustees," says Trustees co-chair Lisa Carnoy '89CC. "His judgment, counsel, and love for Columbia set a high bar for all of us. And he did not shy away from issues of race, racism, equity, and inclusion, sharing stories from his life and advocating for others. When Ken passed, there was a groundswell among the Trustees to do something in his and Kay's honor."

The inaugural incumbent of the Dr. Kenneth and Kareitha Forde Professorship of African American and African Diaspora Studies is Steven Gregory, a Columbia anthropologist who writes about the intersection of race, gender, and class in modern politics.

ARMEN AVANESSIANS DONATES \$10M FOR DOCTORAL FELLOWSHIPS IN DATA SCIENCE

A rmen Avanessians '83SEAS, a Goldman Sachs executive and a University Trustee emeritus, has donated \$10 million to Columbia to endow a new fellowship program for engineering doctoral candidates whose research focuses on data science. The Avanessians Doctoral Fellowships for Engineering Thought Leaders and Innovators in Data Science will support six doctoral students annually, with the first Avanessians Fellows to be named in the fall of 2022.

Avanessians's gift bolsters Columbia's new Student Support Initiative, which aims to raise \$1.4 billion in financial aid by June 2025.

COLUMBIA FALL 2021 55

BULLETIN



COLUMBIA ENGINEERING COHOSTS \$20 MILLION AI RESEARCH INSTITUTE

n partnership with the University of Washington and Harvard University, Columbia's engineering school is cohosting a new research institute that aims to develop more powerful artificialintelligence technologies. The AI Institute for Dynamic Systems, which is funded with a \$20 million grant from the National Science Foundation, will develop AI tools for use in a wide range of scientific and engineering applications, from robotics to drug discovery to the design of more powerful climate models.

Columbia's participating researchers, led by mechanical engineer Hod Lipson and electrical engineer John Wright, are focused in part on developing AI systems that are capable of evaluating and improving their own functions. Says Lipson: "We are now faced with the ultimate challenge: can we create a system that can itself invent solutions automatically? If we can find a way to do so, the leverage would be huge."

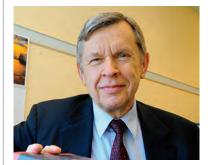
The new institute has a strong educational component and will recruit and prepare recent college graduates from underrepresented groups, as well as those who are US veterans or firstgeneration college students, to pursue graduate work in artificial intelligence.

"AI is being integrated into every industry and every discipline," Lipson says. "It doesn't matter if you are interested in journalism, nursing, or nutrition. From retail to real estate, AI is going be a part of every industry's future, and everyone needs to be prepared."

AHO, ULLMAN WIN PRESTIGIOUS TURING AWARD

arlier this year, Alfred V. Aho, a longtime Columbia professor of computer science, and Jeffrey D. Ullman '63SEAS, a Columbia Engineering alum and Stanford computer-science professor, won the A. M. Turing Award, which is often called the Nobel Prize of computing.

Frequent collaborators since the late 1960s, when they worked



Alfred V. Aho

together at Bell Labs, Aho and Ullman developed many of the theoretical concepts and algorithms underlying modern computer science. Virtually all software programs now used in the world including those in our smartphones and automobiles and in Internet companies' giant servers — rely on computing technologies pioneered by Aho and Ullman. The pair also coauthored a number of influential computer-science textbooks that remain widely read by students and software developers today.

Aho and Ullman both earned their PhDs at Princeton before joining Bell Labs in 1967. Ullman (who had earned his bachelor's degree at Columbia) began a career in academia two years later, ultimately joining the faculty of Stanford, while Aho remained at Bell Labs until coming to Columbia in 1995. Despite working at different institutions, Aho and Ullman continued to conduct research together for several decades, coauthoring nine books and dozens of scientific papers.

Aho, who is the Lawrence Gussman Professor Emeritus of Computer Science at Columbia Engineering, and Ullman, who is the Stanford W. Ascherman Professor Emeritus of Computer Science at Stanford, have both received multiple awards for teaching excellence.

The Turing Award, which is administered by the international Association for Computing Machinery, carries a \$1 million prize supported by Google. It is named for the British mathematician and computer scientist Alan M. Turing, who helped the Allies decipher the German Enigma code during World War II.

NAS ELECTS FOUR FACULTY MEMBERS

The National Academy of Sciences has elected four Columbia professors into its membership, which is one of the highest honors accorded to scientists in the US. The new inductees are Elena Aprile, a Columbia physics professor who leads one of the world's most ambitious efforts to find dark matter; Joan Birman, an emerita research professor in mathematics at Barnard who specializes in topology and dynamical systems; Sankar Ghosh, the Silverstein and Hutt Family Professor of Microbiology and Immunology (and the chair of that department), who investigates the links between inflammation and cancer; and Robert Jervis, the Adlai E. Stevenson Professor at Columbia's School of International and Public Affairs and an expert on international conflict and cooperation.

BRAVOS TO TOP PROFS

E ight Columbia faculty members and graduate-student instructors have received the annual Presidential Awards for Outstanding Teaching. The 2021 recipients are Denise Cruz, a professor in the Department of English and Comparative Literature; Jeremy Dodd, a senior lecturer in the Department of Physics; Jasmine McDonald, an assistant professor in the Department of Epidemiology; Timothy Mitchell, the William B. Ransford Professor of Middle Eastern. South Asian, and African Studies: Katherine Reuther '20BUS, a senior lecturer in the Department of Biomedical Engineering; Daniella Cádiz Bedini, a doctoral candidate in the Department of English and Comparative Literature; Miguel Ángel Garrido, a doctoral candidate in the Department of Statistics; and Christopher Medina-Kirchner, a doctoral candidate in the Department of Psychology.

NINE PROFESSORS JOIN AMERICAN ACADEMY OF **ARTS AND SCIENCES**

ast semester, nine Columbia professors joined the American Academy of Arts and Sciences, one of the nation's most prestigious honorary societies.

The new AAAS fellows are Hilton Als, an associate professor in the School of the Arts' writing program and a New Yorker theater critic; Kimberlé Crenshaw, the Isidor and Seville Sulzbacher Professor of Law and a scholar of civil-rights law, critical race theory, and Black feminist legal theory; Virginia Page Fortna, the Harold Brown Professor of US Foreign and Security Policy and an expert on anti-terrorism and peacekeeping strategies; David Henry Hwang, the head of the School of the Arts' playwriting program and a Tony Award-winning playwright, screenwriter, television writer, and librettist: Gillian Lester, the dean of Columbia Law School and a leading authority on employment

law and policy; Michele Moody-Adams, the chair of the philosophy department, the Joseph Straus Professor of Political Philosophy and Legal Theory, and a scholar of moral psychology and applied ethics; Frederick Neuhouser '88GSAS, a philosophy professor at Barnard and an expert on the works of Rousseau, Fichte, and Hegel; Gayatri Spivak, a Universitv Professor whose research interests include nineteenth- and twentiethcentury literature, Marxism, feminism, deconstruction, and postcolonial political theory; and Mabel O. Wilson '91GSAPP, the Nancy and George Rupp Professor of Architecture at the Graduate School of Architecture, Planning, and Preservation, the director of the Institute for Research in African-American Studies, and a prominent scholar of art, architecture, and cultural history.

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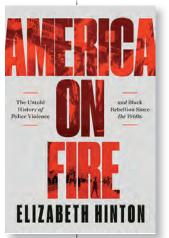




BOOKS

America on Fire By Elizabeth Hinton '13GSAS (Liveright)

ost Americans are aware of the urban rebellions of the 1960s that exploded in places like Harlem, Newark, Watts, and Detroit. Such uprisings are widely assumed to have peaked in the days and weeks following the assassination of Martin Luther King Jr. in April 1968. In *America on Fire:*



The Untold History of Police Violence and Black Rebellion Since the 1960s. Elizabeth Hinton '13GSAS corrects this misconception. A professor of history and African-American studies at Yale, Hinton not only documents the rebellions that continued to proliferate with astonishing frequency and bloodshed between 1968 and 1972 - often in smallercities that flew beneath the radar of the national media but also reveals how fundamental this forgotten

"crucible period of rebellion" was in defining "freedom struggles, state repression, and violence in Black urban America down into our own time."

Hinton persuasively argues that these rebellions — 1,949 of them in three and a half years, resulting in forty thousand arrests, twenty thousand injuries, and at least 220 deaths — were nearly always precipitated by an unwarranted act of police overreach against Black people who were simply pursuing their everyday lives or committing minor infractions (violating a park curfew, for instance). Victims' responses would be met with outsize force from the police (often aided by white townspeople), and a rebellion would escalate from there in a vicious, all-too-predictable cycle of violence that could sometimes persist for years.

Hinton's analysis of how police forces across the nation evolved into de facto armies is both fascinating and deeply demoralizing, since, among other things, it underscores the tragic consequences of wrong-headed public policy. To summarize broadly: For a heady moment in the early 1960s, it looked as if the US might finally be ushering in a "Second Reconstruction," thanks to the civil-rights movement's success in promoting the passage of the Civil Rights Act of 1964 and the Voting Rights Act of 1965. This dream collapsed as President Lyndon Johnson's War on Poverty morphed into 1965's War on Crime and culminated in the Omnibus Crime Control and Safe Streets Act of 1968. This law's provisions ran counter to nearly all the recommendations of the National Advisory Commission on Civil Disorders (popularly known as the Kerner Commission, after its chair, Illinois governor Otto Kerner), which a crime-obsessed President



Johnson convened in the aftermath of 1967's "long, hot summer" of Black rebellions. The commission's report, issued in February 1968, concluded that the source of this discontent was entrenched poverty, inequality, and racism (within law enforcement as well as the wider society) and recommended huge infusions of federal money not into more policing but into social programs to create jobs, improve schools, and provide access to decent housing and health care for underserved minorities. Call it the beta version of "defund the police."

The Safe Streets Act, passed three months later and two months after Dr. King's death, managed to ignore nearly all these recommendations and instead inserted the federal government into state and local law enforcement for the first time in history. The act pumped money into police departments in cities large and small across America and armed them with military-level ordnance diverted from the vast surplus of weaponry being produced for the Vietnam War. (Among these weapons of war was tear gas, a diabolical and heretofore rarely used chemical agent deployed in Vietnam and immediately embraced by law enforcement at home as a supposedly non-brutal way to subdue unruly crowds.) From 1964 to 1970, annual federal funding of state and local police mushroomed from zero to \$300 million. Armed to the hilt, police forces across the country proceeded to act accordingly.

Now here we are, half a century later. (Say their names: George Floyd, Breonna Taylor, Daunte Wright ...) Yet Hinton's book, while undeniably grim, is not despairing. She offers no prescriptions, but she hints that some possible remedies for the blatant abuses and inequities highlighted by today's Black Lives Matter movement may have been hiding in plain sight since 1968, in the Kerner Report. (Not for nothing did Dr. King call it "a physician's warning of approaching death, with a prescription for life.") Perhaps a small first step might be to get a copy of that book, newly available in a revised version edited by Columbia journalism professor Jelani Cobb, into the hands of all 535 members of the 117th Congress. Only when, as Hinton writes in the final pages of America on Fire, "the forces of inequality are finally abolished and the nation no longer empowers police officers to manage the material consequences" of this inequality can the long-awaited "Third Reconstruction" envisioned by many contemporary Black leaders have any chance of arriving. - Lorraine Glennon

Embassy Wife By Katie Crouch '05SOA (Farrar, Straus and Giroux)

atie Crouch '05SOA is no stranger to society life. A native of Charleston, she's known for her vivid depictions of the sometimes strange and subtle social mores of the Deep South. But in her latest novel, she turns her attention to a very different scene: the drop-off line at the Windhoek International School in Windhoek, Namibia, Here there are clouds of red dust instead of Spanish moss and safaris in place of cotillion balls. But as Crouch proves in this sharp, hilarious satire, the rules of society in Windhoek are just as important as in Charleston – and even more complex.

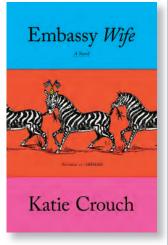
At the center of Crouch's cast of characters is the irrepressible Persephone Wilder, perpetually clad in glowing white "like a

dove that had accidentally swallowed a uranium pellet." The wife of an embassy lawyer, Persephone is queen bee of the expats. She stays busy throwing perfect pool parties (even in a drought), monitoring the town gossip, and waiting for "Incomings," a.k.a. new members of her club of "Trailing Spouses" - the wives (and occasional husband!) of State Department employees and the like obliged to follow their partners to their far-flung posts.

So Persephone is ready for Amanda, wife of a Fulbright Scholar seemingly there to relive the long-ago year he spent in Namibia as a Peace Corps volunteer. In America, Amanda had been the family breadwinner, but in Namibia, she can't even find a volunteer position (Namibians, observes another embassy wife with no sense of irony, "want to do things *their* way"). Undeterred, Amanda and Persephone decide to start their own NGO, aimed at protecting endangered rhinos — starting with one particular animal that lives on the game farm of the wealthy and exquisite Mila Shilongo, Persephone's rival and the rare African mother at the international school.

As the women get wrapped up in their rhino-liberation scheme, their family lives are unraveling. Both their husbands, as well as Mila's, seem to be harboring secrets of varying degrees of importance. And Amanda's and Mila's daughters have struck up an unlikely alliance, which amps up in surprising ways as the school nears its most important social event of the year.

Crouch's prose is breezy, but this novel is more than just a pitch for the Real



Housewives of Namibia. Wrapped in this fun package is a thoughtful meditation on what it means to be a white foreigner in a country still very much shaped by the devastating legacies of colonialism and apartheid. Even in modern times, it is clear that there are still two Africas and two sets of rules. "Remember where you are," says Mila. "There are many different levels of truth, here in Namibia." - Rebecca Shapiro

BOOKS

Everyone Knows Your Mother Is a Witch

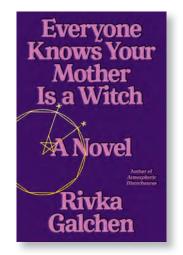
By Rivka Galchen '06SOA (Farrar, Straus and Giroux)

hen social-media services like Facebook and Twitter began to appear over a decade ago, they promised to connect humanity as never before. Well, as the saying goes, be careful what you wish for. For all the blessings that virtual communities can bring, they're even better at amplifying the vices that have always flourished in real communities: rumor and slander, self-righteous groups closing ranks against unpopular victims.

In her new book Everyone Knows Your Mother Is a Witch, novelist Rivka Galchen '06SOA, an assistant professor of creative writing at Columbia's School of the Arts, tells the true story of a witch hunt from the 1610s. She doesn't have to make an explicit link to the twenty-first century to drive home the relevance of the story any more than Arthur Miller had to mention McCarthyism in The Crucible. The human dynamics at work in the case of Katharina Kepler, a German woman accused of witchcraft, are immediately familiar. What Katharina's son says about her accusers is just what anyone who has been mobbed online must feel: "It's like going up against a thunderstorm. I have work to do, I have other obligations, whereas they — this is their work. They're the guild of rumormongers."

What makes some people victims and others persecutors? That's one of the questions Galchen explores in this idiosyncratic, sharply imagined novel, which brings the historical Katharina to fictional life. Part of her problem is that she fits the popular image of a witch too well: she is a widow in her seventies, gray-haired and "very thin," who serves the town of Leonberg as a healer and herbalist.

More fundamentally, Galchen suggests, Katharina disturbs the social order because she is an independent, opinionated woman. "Widows generally keep to themselves and don't go here and there all over town like a whirligig. Frau Kepler has been more like a man in her out-and-aboutness," one of her accusers complains. Even when she knows it would be smarter to be accommodating, she can't help speaking her mind, "like a child who doesn't understand the intersection of tactics and truth."



So when Katharina is brought before the ducal governor on a charge of using her "very considerable dark powers" to make her neighbor Ursula Reinbold "moan, weep, cringe, writhe, be barren, and cackle," she indignantly files a countersuit, accusing Ursula of slander. This turns out to be the wrong move, alienating the governor and uniting the town in support of Ursula, who has mercenary motives — if Katharina is put to death, she will be able to claim compensation from the estate.

Most of the novel takes the form of Katharina's memoirs as dictated to a literate friend, in which she communicates her unique perspective on the world — a mixture of orneriness, grief, deep affection, and philosophical curiosity. But Galchen also invents numerous depositions by other Leonbergers in which they lay out their grievances against Katharina, showing how ordinary people convince themselves that doing evil is justified and even praiseworthy. "We respect the court. We know that God dwells in each human being," the prosecutor declares — as opposed to "them," the small band of Katharina's supporters, who defy God by defending a witch.

As for how the Leonbergers know that Katharina really is a witch, "The matter of how we came to know is simple — we already knew," one witness declares. There is no arguing with this kind of circular logic, since once a witch is labeled as such, history gets rewritten accordingly. Did a blackbird appear to spy on Wallpurga Haller, bringing bad luck? Of course, she now understands — it was "Frau Kepler, in the form of a blackbird. At first I thought it was only a blackbird."

Katharina Kepler is one of the best-known victims of the age of witch trials, on account of the fame of her son Johannes Kepler, the great astronomer who established the laws of planetary motion. Johannes plays an important role in *Everyone Knows Your Mother Is a Witch*: some of Katharina's accusers are motivated by jealousy of his spectacular rise from ordinary village boy to imperial mathematician.

Katharina herself is put off when she visits her son and finds that he has adopted a newfangled affectation — eating with a fork. But she is also proud of him, insisting that "Hans was more of a Guldenmann, more from my side of the family." In the early seventeenth century, however, gender makes all the difference, and Galchen leaves the reader feeling that perhaps the very qualities that made Johannes a genius — his curiosity, originality, and stubbornness — are the ones that led Katharina to be seen as a witch.

-Adam Kirsch

READING LIST New and noteworthy releases

THE HOLLY By Julian Rubinstein '92JRN In late September of 2013, shots rang out in the Holly, a historically black neighborhood on the northeast side of Denver. Just one person was injured, but the incident seemed to paralyze the entire community, because the shooter, a man named Terrence Roberts, was a beloved anti-gang activist known for trying to keep the peace. In this impressive piece of investigative journalism, Julian Rubinstein not only tries to piece together the events that drove Roberts to violence but goes much deeper, crafting a riveting portrait of the neighborhood from the civil-rights movement to Black Lives Matter.

PLANET PALM By Jocelyn

C. Zuckerman '96JRN Palm oil is hardly a new ingredient, but over the last half century it has become ubiquitous, an ingredient in nearly half the products in American grocery stores. That trend is troubling, since according to Jocelyn C. Zuckerman, a James Beard Award-winning journalist, the cultivation and production of palm oil has both a sinister past and a dire future. In this fascinating and alarming exposé, Zuckerman travels the world to report on both the human and environmental dangers of the palm-oil industry. Nothing else, she

concludes, has so sharply affected the "combined twenty-first century crises of obesity, malnutrition, and climate change."

OUR WOMAN IN MOSCOW

By Beatriz Williams '99BUS It's 1948 - the dawn of theCold War — and American diplomat Sasha Digby, his wife Iris, and their two children have vanished without a trace. Two possibilities emerge: either they were kidnapped by Russian spies or they went into hiding. Four years later, Iris's estranged twin, Ruth, gets a postcard from her sister and hatches an elaborate plan to find her. But as the complicated truth emerges, both sisters will have to decide where their lovalties lie. Beatriz Williams is the author of the New York Times bestseller Her Last *Flight*, and this new offering is every bit as gripping.

THE CLASSICAL LEGACY OF GILBERT HIGHET

Bv Robert J. Ball '71GSAS Gilbert Highet, a native Scot who served as a Columbia professor of Greek and Latin from 1938 to 1971 (with the exception of a few years spent in the British Army) was celebrated for both his erudition and his accessibility. A prolific writer, he aimed to popularize the classics beyond the ivory tower, and at Columbia he was known not just for his scholarship but for his charisma in the classroom. As historian Robert J. Ball once wrote, "When Gilbert Highet entered the classroom, one felt as though



the curtain were going up on a Broadway play, with a living legend in the lead." Now Ball revisits Highet's storied career and the impact it continues to have, forty years after his death.

NO ONE SUCCEEDS

ALONE By Robert Reffkin '01CC, '03BUS Robert Reffkin is the kind of person who seems to have more than twenty-four hours in his day. He graduated from Columbia in three vears, served as one of the youngest ever White House Fellows during the Obama administration, and went on to found Compass, a multibillion-dollar realestate company. In his spare time, Reffkin has also run a marathon in every state to raise money for charity, including his own nonprofit organization, America Needs You, which supports college-bound children living below the poverty line.

In his first book, Reffkin outlines the secrets to his success, which include the support of his mother, who raised him alone, and a series of mentors who recognized his potential.

SLEEPER AGENT

By Ann Hagedorn '85JRN When George Koval, an Iowa-born scientist (who studied briefly at Columbia), was drafted into the US Army in 1943, he landed a top-secret assignment with America's atomic-bomb development program. But Koval was leading a double life, and for the duration of the war he passed sensitive information to the Soviet military. While Koval was one of many Russian spies active during World War II, he was the only one to infiltrate the Manhattan Project. Ann Hagedorn's book is nonfiction but so compellingly written that it reads like a classic spy novel.

BOOKTALK

A Cold War Panorama

In *The Free World, New Yorker* staff writer and Harvard professor Louis Menand '80GSAS takes a "street-level" look at one of the most fertile cultural and intellectual periods in recent history



Columbia Magazine: In its eighthundred-plus pages, *The Free World* presents an epic survey of major mid-century movements, including existentialism, abstract expressionism, second-wave feminism, rock-and-roll, and dozens of other big ideas of that period. How did you choose what to include?

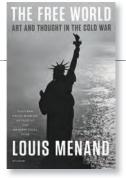
Louis Menand: I didn't choose, exactly. I had a few preconceptions that quickly got exploded, and then I just decided to follow the dotted line from one end of the period to the other and let the material dictate the story. But I wanted to tell that story on the street level - to show what it was *like* to be a painter in 1947, or the maker of a pop song in 1956, or an academic in 1962. I wanted to create a full context for these various phenomena, because although we know who Jackson Pollock is, and we know Elvis and so forth, we don't necessarily understand the context that made their work possible. I wanted to capture that.

CM: You write that during the Cold War — specifically, the twenty-year period between 1945 and 1965 —

Americans were obsessed with freedom, and the phrase "the free world" was invoked constantly. You also write that in this period, art and thought were an "important battleground in the struggle to achieve and maintain a free society." How did the two realms intersect?

LM: Art and thought became a battleground because - since we didn't want to go around actually *shooting* Russians – the Cold War was a war of ideas. One of its battlegrounds was definitions of art. The Soviets had an official aesthetic: socialist realism. If you were an artist, you could paint only in that style. The American aesthetic was diversity: in a "free" society, you could paint in any style you wanted. The principal battle in the Cold War was freedom versus equality. By choosing freedom as their motto, the liberal democracies implicitly acknowledged that a certain amount of inequality would be tolerated because, as Isaiah Berlin '68HON observed in his famous essay on two concepts of liberty, freedom and equality are not commensurable values. If you give people greater freedom, some of them will be better off than others. If, on the other hand, you require equal distribution of resources, then some people's freedom will be curtailed. This ideological battle gave rise to serious intellectual debate all over the world.

CM: It was gratifying to read your section about the anti-colonial Négritude movement, which is somewhat unknown in the States — in part, perhaps, because we Americans tend to think of decolonization as something that was happening *elsewhere* in this period. Yet you make a strong case that it had a pervasive influence



on American life and culture in the 1950s and '60s. How so? **LM:** As other scholars have also noted, decolonization put pressure on the American government to fix the race problem in the US, because it didn't look good globally to be parading around as the country of freedom when we were oppressing a tenth of the population. The Civil Rights Act of 1964 and the Voting Rights Act of 1965 probably would not have happened in a pre-decolonizing world. Moreover, decolonization was the big story of these twenty years. The international map got completely rewritten, and in most cases these countries became governed by nonwhite people for the first time in modern history. That's a huge deal — bigger, ultimately, than the Cold War.

CM: Your book's first and last chapters are on the US policy of containment, which was firmly rebutted by the Vietnam War. You chart the many mistakes made by various US administrations in pursuing military action in Vietnam. But why did US military involvement also mark the end of this extraordinary period of artistic and intellectual flowering?

LM: I don't really know why it all collapsed so quickly. But in 1965 the world turned, and suddenly everything was politicized, everything turned militant. The phrase "Black power" started being used, and antiwar protests began. Very rapid cultural and social change had taken place, and somehow Vietnam just lit a tinderbox. If I write another book, it will probably be an attempt to explain the Vietnam era. But it will be a different format and a much shorter book!

- Lorraine Glennon

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BACKSTORY

Lionhearted

Sixty years ago, Columbia's football team clawed its way to the top of the Ivies

Captain Bill Campbell (left) leads the way

for Tom Haggerty (right).

n 1958, when an exceptionally talented group of freshman footballers arrived on campus, they quickly came to understand that they were on a mission. After a decade of steady losses by the varsity squad, Columbia's dream of conquering college football's Ivy League, an athletic conference started in 1954, seemed tantalizingly within reach. "Everyone knew it was a special class," says quarterback Tom Vasell '62CC.

Back then, freshmen couldn't play varsity, so they had their own schedule, and that year the young Lions achieved a winning record of 3–2. The group featured Vasell, running backs Russ Warren '62CC and Tom Haggerty '62CC, center Lee "Bugle" Black '62CC, tight end Dick Hassan '62CC, tackles Bob Asack '62CC and Ed Little '62CC, and

linebacker Bill Campbell '62CC, '64TC, '15HON, among others. They played together the next three years on varsity, gradually coalescing under head coach Aldo "Buff" Donelli.

By the beginning of their senior year, in 1961, Campbell was the captain and heart of the team. "Billy Campbell was magnificent as captain," says Black. "He was 165 pounds and as tough as anyone on the field. He knew how to get the best out of people."

"Campbell wasn't just the captain of the team, he was the captain of the class," says Lions superfan Horace "Que" Spaulding '62CC, '63BUS. "Billy knew the physics majors, the math majors, guys who couldn't

care less about sports, and he would implore them to come up to the game and have a good time."

Even after the Lions went 3–6 in 1960, the 1961 starters, most of them seniors, were confident. Their first test was against Brown in Providence, and the Lions won 50–0. "We just rolled over them something terrible," says Vasell. Those fifty points remain the most scored by the Lions in an Ivy League game. But the next game, against Princeton, was another story. The guys still talk about the ninety-five-degree heat at Baker Field, and how Lee Black lost twenty pounds during the game, and how the Lions used only fourteen players to the Tigers' thirty-six, and how, with Princeton up 23–20 in the fourth quarter, the Lions marched downfield and were stopped deep in Tigers territory, and how a Tiger then broke free on a long touchdown run, leaving depleted Lions in his wake. "That was the toughest loss I had at Columbia," says Russ Warren. The Princeton heartbreaker set the stage for what Spaulding calls the season's pivotal game, against Yale. Back in '58, the freshman Lions had played the Bulldogs and got "absolutely crushed," says Spaulding. "So now, as seniors, Yale was going to have a lot of the same guys who kicked our ass. I was leery, but we won, and that turned the whole season around."

On November 18, 1961, the team, having also vanquished Harvard, Dartmouth, and Cornell, was 5–1 in Ivy play and needed to beat the University of Pennsylvania to clinch the league title. The Lions had not beaten Penn at home since 1937. But this time they mauled the Quakers 37–6, and as the clock wound down, fans poured from the wooden stands and

swarmed the turf at Baker Field. "It was bedlam," says Spaulding. "Euphoric," says Black. The players hoisted Campbell on their shoulders and carried him off the field.

Columbia and Harvard both finished 6–1 in Ivy play, and though the Lions had defeated the Crimson head-to-head, officially, Columbia and Harvard were co-champions. But the Lions knew better. "We beat Harvard up there," says Warren, "and I always felt like we won the Ivy League title outright."

After graduation, the players moved on. "A lot of us got

married that June," says quarterback Vasell. "At almost everybody's wedding, it seemed, Bill Campbell was the best man."

The '61 Lions became businessmen, teachers, surgeons, coaches, and executives. Campbell coached the Lions in the 1970s and later became the "Coach of Silicon Valley." A management guru to Steve Jobs and Larry Page, he served on the boards of Apple and Intuit. Campbell was named a University Trustee in 2003 and was Trustee chair from 2005 to 2014, as well as a major donor. Today's Lions, under coach Al Bagnoli, are based in the Campbell Sports Center at West 218th Street.

When Campbell died, in 2016, some two thousand people attended his funeral.

For superfan Spaulding, the best memory of 1961 was the captain's face after the clincher against Penn. "Billy Campbell played the entire season with an enormous scab on his nose," Spaulding says. "His nose was always bloody, just from the way he played. Seeing that beat-up face smiling and happy because the Lions had won the title — that was the greatest thing ever." — *Paul Hond*





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