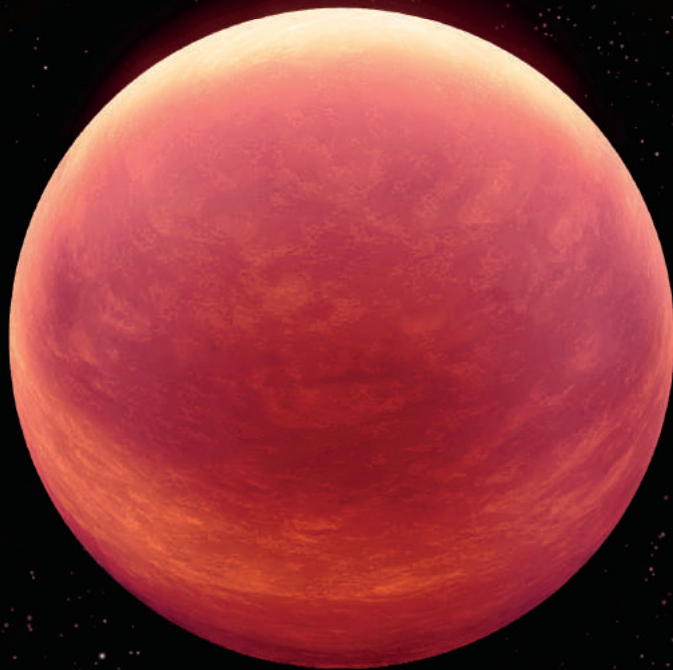


WINTER 2017-18

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DAVE WHEELER

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DAVID TRUMAN'S LEGACY

Your article about David B. Truman brings back memories of him as the outstanding scholar I knew sixty-five years ago (“A Provost’s Reflections,” College Walk, Fall 2017).

The first thing Truman did while teaching Government 19–20, on American parties and politics, was to fling open the windows, whatever the temperature outside, to dispel the blinding and malodorous pall left by smokers awaiting his lecture. Fresh air was a hallmark of Truman’s approach to education and life.

When I met him, he was new to teaching, but he had much practical experience in World War II and afterward that marked him for probity and realism. He could analyze expertly and with notable fairness the strengths and failings of those engaged in the turbulence of a presidential election year (1952) in which the head of Columbia University was a candidate.

He was scrupulously honest and restrained in dealing with inevitable challenges

to his presentations. His standards were high. (When I complained about a B+ grade at the end of the 1952 fall semester, he responded amiably but firmly that he did not believe anyone in the class merited an A and had graded accordingly.)

I was in Czechoslovakia in 1968 watching an effort to restore limited freedom there until the Russians decided otherwise. I could not judge from afar events at Columbia then, but recalling Truman’s strength of character and sense of purpose, I viewed and still view the outcome as a huge loss for Columbia and an unmerited blow to a life full of promise.

Kenneth N. Skoug Jr. ’53CC
Harleysville, PA

David Truman was perfectly right to understand that there was a radical core of students that not only wanted to bring down the University, but really thought (however foolish this may now sound) that this could be the beginning of a general revolution. One of the radical students at the

time told me, “Dan, you’re a nice guy, but come the revolution, we’ll line people like you up against the wall and shoot them.” Needless to say, not all, or even a majority, of the protesters thought this way, but some did, and they hoped to take the lead. The Weathermen, who did turn violent, had in their ranks some of Columbia’s student leaders. I thought even then, as a rather naive graduate student, that the ad hoc faculty group had too many unthoughtful members who did not understand that what was going on was really an assault against academic freedom.

These days, when the values we should hold onto are being relentlessly attacked from a right that is far more dangerous than the deluded left ever was, we should remember that whether attacks come from the radical left or the radical right, the old-fashioned liberal, Enlightenment vision of academic freedom needs to be defended, even if that makes us unpopular.

Dan Chirot ’73GSAS
Seattle, WA

top tweets

Greg Cannon ’97JRN
@GregCan
Really impressed with @columbiomag redesign. Great, fresh presentation worthy of consistently quality content

Emily Taussig
@trimbling
Thank you for your excellent coverage of Justice Gorsuch and Lindsay Stark’s research, since diversity enhances endurance.

Brendan Donley ’15CC
@BrenJDonley
Nice piece on Neil Gorsuch in the @columbiomag

Joey Wahler
@JoeyWahler
Best piece I’ve seen done on Gary Cohen by @columbiomag

FEEDBACK

At the time of the events of 1968, I was several years an alumnus but living on West 114th Street, in the privately owned apartment building adjacent to the Columbia-owned one occupied on May 18. Thus, I was present when David Truman was approached by a delegation demanding to know why WKCR had been ordered off the air. He was clearly startled to learn this and promptly said it should resume broadcasts. He was not the bad guy of the events, regardless of how he may have interpreted or misinterpreted motivations.

But I was also present when twenty trench-coated men holding clubs rushed by me to a ground-level entrance to Low Library's basement. One flourished his club in the air and brought it down with full force on the head of one of the faculty guarding that entrance. The remaining faculty linked arms and kept all but six from the building. One of the faculty asked me to notify others of what had happened.

The person who called in the police, whether Truman, Grayson Kirk, or another, was apparently totally naive about the personalities, activities, or motives of the NYPD. They resented everyone at Columbia — administration, faculty, students — as being from a social stratum they regarded as overly privileged and under-appreciative.

Thomas Hamilton '60CC
Staten Island, NY

I recall that as a Columbia junior, a few months before the occupation, I went to warn David Truman that

many students were very upset with the University's actions about the gym and its work with the Institute for Defense Analyses (IDA).

Maybe I was one of those "hard-core radicals" — whatever that means. I *was* one of the thousands of students who supported the occupation of April 1968 and was beaten and arrested for my actions. We opposed the racist gym (in a public park, with separate and unequal entrances for Blacks in Harlem and the mostly white Columbia students on Morningside Heights). We opposed the University's heavy involvement with the IDA and its support of the Vietnam War, now widely discredited as a horrible waste of millions of lives.

But I did not want to destroy the University. After my not-so-great high-school years, I loved the learning I found at Columbia.

Truman wrote: "I still regret that it was necessary to involve police . . . But I do not see, even after more than twenty years . . . any reasonable alternative that in the circumstances was available to us." That is sad. When I make a mistake, I say so and

apologize. It is not too late for Columbia, if not Mr. Truman, to admit a mistake and apologize. I've been waiting for almost fifty years.

Michael Jacoby
Brown '69CC
Arlington, MA

COURT OF APPEALS

Thank you so much for your fawning fluff piece on Justice Gorsuch, which appears to have been ghostwritten by him ("The Education of Neil Gorsuch," Fall 2017). His expected role in overturning *Roe v. Wade*, giving free rein to business interests, limiting worker rights and civil rights, eviscerating environmental and financial regulations, demolishing the wall between church and state, and enhancing the power of the current embarrassing occupant of the White House will be so much more palatable knowing that he is such a nice guy.

David Hershey-Webb '83CC
New York, NY

I am sure I am not alone in reading the puff piece on Neil Gorsuch with great dismay. Within hours of Justice Antonin Scalia's death in February 2016, Senate Majority Leader Mitch McConnell

announced that there would be no action taken on any nominee put forward by President Obama. Sure enough, Merrick Garland's appointment was shelved for nearly a year, in blatant violation of the Senate's constitutional obligation to give their "advice and consent." Judge Garland is the most decent of men, with great intellect, charm, wit, and integrity. The same cannot be said for Gorsuch, who gladly served as an accessory after the fact in the theft of a Supreme Court seat.

Mark S. Brodin
'69CC, '72LAW
Newton, MA

How comforting it is to know that when Justice Gorsuch erodes the division between church and state, further restricts women's reproductive rights, and imposes his reactionary, homophobic views on the country, he'll be nice about it.

Susan D. Einbinder
'85BC, '95SW
Santa Monica, CA

Henry Adams famously wrote that the succession of presidents from Washington to Grant was sufficient to disprove the Darwinian

KEY TO ABBREVIATIONS

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

theory of evolution. I was put in mind of that in reading your sycophantic profile of Neil Gorsuch. Consider the many justices connected to Columbia: Jay, Cardozo, Stone, Douglas, Ginsburg . . . and Gorsuch! What an accomplishment — to have usurped a seat on the Supreme Court by an appointment from a man like Donald Trump through the cynical machinations of a man like Mitch McConnell. Whatever his other virtues, Gorsuch is apparently lacking one of significance: self-respect.

Leslie T. Jones '59CC
Las Vegas, NV

I enjoyed reading your recent article on Justice Gorsuch. It was interesting to know that he wasn't a nerd who studied all the time or this super-being who always did the right thing. He was "a typical college student: he studied, dated, and hung out." He was opinionated, but he always wanted open and fair debate. And he had a polite and gracious demeanor, a quality so rare in the current political environment. The highlight of the article was his answer to the question of why he would come to Columbia University, where all these liberal students seemed so frivolous to him. "If I surrounded myself with like-minded students," he said, "I wouldn't get stronger." The courage and the confidence he displayed is inspiring.

Tang Di '05SIPA
Sleepy Hollow, NY

MAN IN THE BOOTH

I so enjoyed your feature on Mets announcer Gary Cohen ("Outta Here!" Fall 2017). Speaking as a historian who is researching the history of baseball broadcasting, I have no doubt that Cohen will be ranked among the greats. But your references to Bob Murphy as the longtime voice of the Mets ignores a couple of the other voices of Cohen's childhood: Ralph Kiner, who broadcast for the team for fifty years, and Lindsey Nelson. The three of them were baseball's longest-tenured broadcasting trio, working together for seventeen years.

As a beginning Columbia PhD student in 1989, I got to hear Cohen's first broadcast as a full-time Mets announcer — including his pregame interview on WFAN in which he talked about broadcasting for WKCR — and I was impressed with him from the outset. The article didn't say much about his work in football, but I recall him saying that once you had broadcast Columbia football, you were ready for anything. That preparation has served him well.

Michael Green '00GSAS
Las Vegas, NV

The story on Gary Cohen's sportscasting career brought back fond memories.

When WKCR went FM and could be heard not just on campus but citywide, I did the first play-by-play broadcast of a Columbia basketball game — we lost to Princeton in a very close and exciting contest — and my brother had promised to listen from home. After the game, I ran to a pay phone and called him.

"How was it?" I asked.

"You'll never be a professional sportscaster," he said.

"Why?"

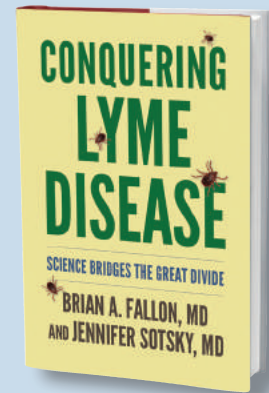
"Because," he explained, "no professional sportscaster ever uses the word 'ostensibly' during a fast break."

Henry A. Solomon '58CC, '62PS
Hampton Bays, NY

STUDIES OF VIOLENCE

"A Voice for Women and Girls" (The Big Idea, Fall 2017) describes studies of violence against women being conducted in war-torn countries such as Ethiopia and the Congo. Mailman School associate professor Lindsay Stark says, "We want to know: are women and girls in these types of chaotic environments more likely to experience gender-based violence? If so, what can be done to prevent this?" There is no mention of Islam or Muslims in the article, even though violence against Muslim women, committed by Muslim men, is rampant not only in countries with significant Muslim populations but all over the world.

New from
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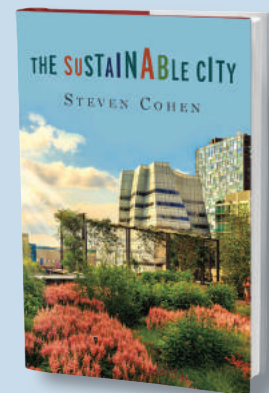
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—William Eimicke, Columbia University

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FEEDBACK

It would seem that the researchers are deliberately ignoring a key ingredient.

Jim O'Brien '66CC
Maitland, FL

Lindsay Stark responds:

The majority of girls in Ethiopia we studied were Muslim, and the majority of those in the Democratic Republic of Congo were Christian, and we found extremely high rates of violence among both populations.

DESCARTES'S SAINT

Teresa of Ávila ("She thinks, therefore I am," Explorations, Fall 2017) was not only a "Roman Catholic nun" who influenced René Descartes. Give her her due: she is Saint Teresa of Ávila, canonized in 1622, just forty years after her death.

Of course, that may just be an additional reason for secular philosophers to overlook her influence.

Taras Wolansky '74CC
Kerhonkson, NY

SINS OF EMISSION

Finally, the University, after much prodding, has divested from thermal coal ("Columbia stands behind Paris Agreement," Bulletin, Fall 2017). But that still leaves possible investment in oil, gas, tar sands, pipelines, drilling rigs, offshore platforms, refineries, and so on. Leaving these gaps means our donations could still be used for those and enables more fossil fuels to be taken out of the ground, speeding up the end of life on earth.

Stan Sulm '65BUS, '72TC
Sunnyvale, CA



BEYOND BARS

I write belatedly to thank you for publishing "Opening Minds Behind Bars" (Summer 2017). Mass incarceration and the forms of retributive criminal punishment we engage in as Americans need to be brought up publicly again and again. More and more Americans appear to be gaining consciousness about the exceptionally high number of people we sentence to years or, too often, decades of living in cages, being subjected to violence and substandard medical care.

I want to commend you for writing this article, because although there will always be people whose knee-jerk reaction to mass incarceration is "let 'em rot," I believe most reasonable people, when better informed about just how cruelly we treat our fellow Americans, can agree that we put too many people in jail and, when we do, we too often unjustly sentence them to entire lives without job prospects or education or the ability to vote. In that way, we harm our society and set ourselves up for failure.



Reforms can and must be made. Thank you for bringing up this issue for people to think about.

Bonita S. Gutierrez '09LAW
Oakland, CA

I am writing in response to Steve Rosenblatt's letter attacking the idea of inmates getting degrees, mocking "alleged good intentions" (Fall 2017). He makes a point of praising private prisons, saying they save tax money. I note he is from Houston — I suspect he will have no objection to New York tax money being spent on Houston's hurricane recovery.

The profit motive in private prisons increases the pressure for the US to maintain the number-one position it holds among all nations in people incarcerated. Rosenblatt speaks of criminals — I trust he knows that many of those in prison have not harmed

anyone and are in for drug offenses that may soon not be illegal, while many corporate lawbreakers are not held accountable and have caused massive hardships to many people. As Rosenblatt himself states, his mind is closed.

Donald Hagen '77SEAS
Felton, DE

As a non-religious volunteer teacher in state and federal prisons for more than twenty years, I was interested in the two letters in the Fall 2017 issue from (male) readers who seem to feel that "opening minds behind bars" is wasteful and counterproductive: "Start making criminals accountable for their crimes . . ." and "Where else can one get free rent, free food . . .?"

These attitudes reflect, I am afraid, a widespread and profound ignorance of what prison is actually like and its pernicious effects on American society. Thankfully, there are people at Columbia and elsewhere who know better and are working to improve a very broken criminal-justice system.

Wally Wood '86GS
Southbury, CT

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COLLEGE WALK

NOTES
FROM 116TH
STREET AND
BEYOND



LIBERTÉ, ÉGALITÉ, SEXUALITÉ

Erica Jong meets Colette

On a recent evening in the Maison Française, Elisabeth Ladenson '94GSAS, professor of French and comparative literature, introduced her fellow speaker, Erica Jong '63BC, '65GSAS, by declaring that she was so well known, and so prolific, that she had moved even Bob Dylan to poetry. From the middle of Dylan's song "Highlands":

Then she says, "You don't read women authors, do you?"

Least that's what I think I hear her say
"Well," I say, "how would you know and what would it matter anyway?"

"Well," she says, "you just don't seem like you do!"

I said, "You're way wrong"

She says, "Which ones have you read then?"

I say, "I read Erica Jong!"

Erica Jong: the author men once read so they could understand what women want — in and out of the bedroom. Jong's first novel, *Fear of Flying*, introduced the catch phrase "the ziplless fuck" — a casual sexual encounter — and she still has a reputation as a writer people reach for only to get to the bedroom parts. But there's a lot more to Jong than her empowered sexuality and her status as what she calls the "happy hooker" of literature, a reference to *Penthouse* columnist Xaviera Hollander's 1971 memoir about her time as a New York call girl. In fact, Jong's twenty-five books include seven volumes of poetry and a biography of her late friend and biggest fan, the novelist Henry Miller, called *The Devil at Large*.

This pervasive underestimation of Jong's output connects her to the French novelist Colette — the writer Jong and Ladenson had come to discuss. Colette was the original female sex writer, deeply

invested in maintaining a controversial reputation: she once declared that feminists should be given “the lash and the harem.” Born in the village of Saint-Sauveur-en-Puisaye in 1873, Colette seemed to live a life of sexual liberty and agency. She divorced two husbands, danced in her skivvies onstage, and had an infamous affair with her teenage stepson when she was in her late forties.

Colette’s famous *Claudine* novels follow the protagonist as she comes of age emotionally and sexually. Though this series catapulted Colette to fame, its birth was not untroubled. The series was originally published under the name of her husband, Henry Gauthier-Villars, known by the nom de plume “Willy.” For thirteen years, Gauthier-Villars locked his wife up daily until she turned out material for him to send to his editor. Finally, Colette divorced him.

While Jong and Ladenson were grateful for the existence of Colette’s early works, they lamented that the books were only accepted for publication under her husband’s name. For Colette to be taken seriously when she wrote about sex from a female point of view, the reader had to believe she was a man.

When *Fear of Flying* came out in 1973, Jong was still one of few women writing about her own sexual desire. Reactions to the book — and to Jong herself — were varied. “Men hit on me, and women came over to my apartment wanting to talk,” she said.

To further complicate matters, as Ladenson noted, writers like Henry Miller and John Updike — neither of them considered apostles of feminism — praised Jong’s candor and prose style. Miller hailed Jong’s “wisdom about the eternal man-woman problem,” and wrote the author a fan letter. The two became friends, often meeting for dinner on the West Coast.

As writers, Jong and Colette were equally productive. Colette went on to publish over twenty novels under her own name, including *Chéri*, about a relationship between a younger man and an older woman, and *Gigi*, whose Broadway adaptation would make a star of Audrey Hepburn. Jong’s favorite is *La Vagabonde*, the story of a traveling dance-hall performer. “There’s a lushness of femaleness in Colette’s writing,” Jong said. “Virginia Woolf killed herself, Sylvia Plath stuck her head in the oven, but Colette embodied her life.”

After the talk, an audience member mentioned that Jong had once written a poem for Colette entitled “Dear Colette.” Jong then read the whole poem aloud, though one need only hear the first stanza to understand the relationship between the two writers:

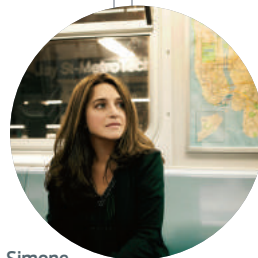
Dear Colette,
I want to write to you
about being a woman
for that is what you write
to me.

— *Lacy Warner '16SOA*

THE SHORT LIST

EXPLORE Uncover the planet’s secrets at the **Earth2Class Workshop** at Lamont-Doherty Earth Observatory. Learn about ocean dynamics, the global carbon cycle, and more from Columbia researchers. Held on the second Saturday of each month from January to May. ideo.columbia.edu/news-events/events

VISIT **Arthur Mitchell: Harlem’s Ballet Trailblazer** celebrates the famed dancer and founder of the Dance Theatre of Harlem. The exhibition will feature artifacts from Columbia’s Rare Book and Manuscript Library. From January 13 to March 11 at Wallach Gallery. columbia.edu/cu/wallach/exhibitions/ArthurMitchell.html



Simone Dinnerstein

LISTEN Pianist **Simone Dinnerstein**, known for her fresh and compelling performances, pairs music by Franz Schubert and Philip Glass at a concert on January 18 at Miller Theatre. millertheatre.com/events/2018/01/18

WATCH Want pictures lousy with gumshoes, roscoes, and stoolies? Columbia’s **Film Noir Festival** at the Lenfest Center for the Arts, presented by film-studies professor Rob King, will feature American movies that inspired French critics to coin the genre’s name. From March 21 to 25. lenfest.arts.columbia.edu

THINK The Heyman Center for the Humanities presents the **13/13 Series**, public seminars that explore themes in contemporary activism. Speakers from Columbia and elsewhere will discuss Standing Rock, hacktivism, and more at various Morningside locations from December to April. heymancenter.org/events/type/13-13-seminar-series



THE THRILL OF VICTORY

Columbia Lions fans aren't used to storming fields in jubilation. Sure, in 1988, enthusiasts tore down the goalposts to celebrate the end of a forty-four-game losing streak, but true catharsis could only come with true success. This year, the Lions opened their season with six straight wins — their best start since 1996. In both years, they won their Homecoming game by three points to extend their record to 5–0. The '96 team defeated Lafayette 3–0, in front of what should have been a record crowd at Baker Athletics Complex. But heavy rains prevailed, and just 1,170 fans saw future NFL All-Pro Marcellus Wiley '97CC lead the Lions downfield as a tailback to set up a field goal by Matt Linit '00CC. October 14, 2017, was another story: sunny and 72 degrees, with thirteen thousand people on hand as the Lions stunned the Penn Quakers in overtime, 34–31. It was Columbia's first victory over Penn in twenty years. After the winning play — a twenty-four-yard touchdown strike from quarterback Anders Hill to wide receiver Josh Wainwright — the emotional floodgates flew open: the Light Blue faithful poured from the stands onto the turf and ran freely, whooping and roaring, toward the end-zone pileup. The goalposts survived.

DEPTH OF FIELD

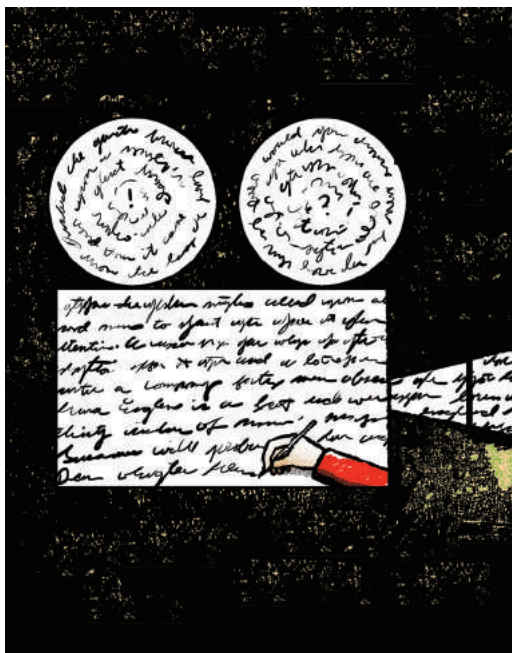
Film professor Annette Insdorf celebrates 30 years of teaching

“I think we learn more about the world and about ourselves from motion pictures than from any other form,” says Annette Insdorf, a world-renowned film educator and professor at Columbia's School of the Arts. “We learn about our fears, our desires, and our aspirations when we identify with movie characters — even those who are different from us.”

Insdorf, who came to Columbia to teach in 1987, is still learning, and she's busier than ever. In 2017 she published two books. *Cinematic Overtures: How to Read Opening Scenes* examines the first minutes of movies like *Psycho* (“Alfred Hitchcock was the master not only of suspense but also of the self-conscious voyeuristic gaze, and the opening of *Psycho* constitutes a textbook case of heightened peeping”), *Apocalypse Now* (“The music of The Doors is hypnotic: the song ‘The End’ not only identifies the time of the Vietnam War but also creates a feeling of doom”), and *Sunset Boulevard* (“What do we make of a story narrated by a man who is already dead?”). The other book, *Intimations: The Cinema of Wojciech Has*, is the first English-language work on Has, a Polish director whose

films, made under communism, are “ripe for rediscovery,” Insdorf says. “They’ve inspired my students to think about the ways in which an iconoclastic artist can make films that are true to his own spirit, despite censorship.”

Insdorf was born in Paris to Polish-Jewish Holocaust survivors and moved with her family to New York at age three. She grew up in the Bronx speaking English, French, and Polish. As a teenager she studied voice at Juilliard (she was a promising



mezzo-soprano), but her parents steered her toward academia. It wasn’t until she became a PhD candidate in English at Yale that she began to seriously watch movies — and get another sort of education.

Insdorf was especially drawn to the work of the French New Wave pioneer François Truffaut. “I believed that he cared deeply, not just for his characters but for the human beings watching his films,” she says. In 1979, she published *François Truffaut*, a landmark study of the director. Truffaut was impressed and asked Insdorf to be his English interpreter at public events. She also began translating for Polish arthouse director Krzysztof Kieslowski, which led to her 1999

book *Double Lives, Second Chances: The Cinema of Krzysztof Kieslowski*.

“My books are geared largely toward the cinephile — the layperson who loves movies,” says Insdorf. “I’ve always considered myself less of a film theorist and more of a film historian who believes in close analysis as the way to truly understand a work.”

In 2014, Insdorf went on sabbatical to write her new books, returning in 2016 to do what she loves most. “I’m now teaching more than ever — four classes instead of one,” says Insdorf, who, in addition to teaching graduate students, had been the director of undergraduate film studies for twenty-seven years, a role she relinquished when she went off to write. Insdorf believes that her teaching benefits from the work she does outside Columbia, including “Reel Pieces,” a series of onstage discussions with filmmakers and actors that she has been hosting at the 92nd Street Y since 1983. This fall, she spoke with Woody Allen about his creative process and with Ken Burns about his new documentary (with Lynn Novick) *The Vietnam War*.

As always, Insdorf’s byword is accessibility: “I’m not a snob,” she says. “I never talk down to audiences. I love the Socratic method: asking questions and then orchestrating answers so that we reach new perceptions.”

Above all, Insdorf cares about the process of learning, both from movies and from her own students, whose coursework she sometimes cites in her books.

“I love to acknowledge when students say things more beautifully, precisely, or evocatively than I might have,” she says. “And while it gives them great pleasure to see their words published, it gives me even greater pleasure to know that that I’ve helped them to articulate such insights.”

— Julia Joy

BABYLON REVISITED

How a chunk of ancient math history got to Columbia

The object lies in a deep-blue, velvet-lined box in a display case in the Rare Book and Manuscript Library in Butler. It is five inches wide and three and a half inches tall, sand-colored, and mottled with blotches of rust-orange and black. Fifteen rows of ancient numbers arranged in four columns are notched on the surface, which is marred by a couple of serious gouges.

This 3,700-year-old Babylonian clay cuneiform tablet, known as Plimpton 322, has fascinated scholars for decades. In 1945, the mathematician Otto Neugebauer and the Assyriologist Abraham Sachs announced that the tablet’s sixty inscribed numerals were Pythagorean triples. That is, they satisfy the classic right-triangle equation of $a^2 + b^2 = c^2$. The tablet therefore suggests knowledge of this essential geometric theorem about one thousand years before the birth of Pythagoras, the Greek philosopher generally credited with the discovery.

Then, this past summer, in the journal *Historia Mathematica*, Daniel Mansfield and Norman Wildberger of the University of New South Wales in Australia posited that Plimpton 322 is also the world’s oldest working trigonometric table.

COLLEGE WALK

“Plimpton 322 describes the shapes of right-angle triangles using a novel kind of trigonometry based on ratios, not angles and circles,” said Mansfield. This would mean that the tablet’s principles predate the work of Hipparchus, regarded as the father of trigonometry, by some 1,500 years.

This startling interpretation of the notched numerals has stirred debate in the math world, inspiring a *Scientific American* blog post titled “Don’t Fall for Babylonian Trigonometry Hype.” But what is less debatable is how the relic ended up in Morningside Heights.

Columbia has more than six hundred cuneiform tablets in its collection, and George Arthur Plimpton, the grandfather of the author George

cigar-store Indians, Colonial furniture, antebellum slavery documents, and even the bricks of Sir Isaac Newton’s fireplace. He particularly glommed onto old mathematical texts.

Plimpton 322 was uncovered in Iraq at the site of the ancient Sumerian city of Larsa around 1920. After World War I, as the Allies carved up the Ottoman Empire, speculators swarmed to plunder the region’s ancient treasures for museums and libraries. Among these adventurers was Edgar James Banks, an archaeologist who climbed Mount Ararat in search of Noah’s ark and was a model for the fictional character Indiana Jones.

But Banks fell under suspicion of stealing antiquities, according to Laurence Kirby,

destination. Both Kirby and Timothy Halpin-Healy, a physics professor at Barnard, have used it in classroom demonstrations.

Halpin-Healy saves the tablet for the last day of Mathematical Boot Camp for Budding String Theorists, his course in the University’s Summer Immersion Program for high-school students. After pummeling the youngsters with reams of numbers and theory, he escorts them to Butler, where curator Jennifer Lee ’76LS presents some of the texts he has discussed for his charges to see up-close. These include first editions of Galileo’s *Sidereus Nuncius* (*Starry Messenger*) and Newton’s *Principia Mathematica*. Halpin-Healy calls Plimpton 322 the “slam dunk” of the visit.

“It was incredible,” says Maryn Brown, who took the class in 2015 and now studies chemistry at the University of Oxford. “We all whispered excitedly to our classmates, gently pointing out particular figures or parts of the tablet itself. I remember trying to take the perfect photo. After the tablet was taken out of the room, we all sort of stared at each other. I think we were all a bit shocked that we’d just been centimeters away from this mysterious, irreplaceable historical document.”

Halpin-Healy has taught the class for ten years, but he says he has yet to actually touch what he calls “this luscious, earthy, tiny, warm, orangey-red-looking thing” himself. “I’ve never had the courage, I guess.”

— Thomas Vinciguerra
'85CC, '86JRN, '90GSAS

SPEECH THERAPY

Can we talk about free expression?

“The issue of free speech on campus couldn’t be more timely,” Suzanne Goldberg, Columbia’s

executive vice president of university life, told an audience in Pulitzer Hall in November. Everyone got the reference. The panel discussion she was introducing, “Free Speech on Campus” — part of her office’s social-justice-themed series Awakening Our Democracy — came just days after students loudly protested two speakers who had been invited to campus by the Columbia University College Republicans.

Those speakers — Tommy Robinson, a British nationalist who rails against Islam, and Mike Cernovich, an Internet-powered verbal grenadier who promoted the “Pizzagate” conspiracy theory — were deemed by some students to be white supremacists, their presence a provocation serving no valid academic purpose.

The panelists — Jamal Greene, a Columbia law professor; Suzanne Nossel, the executive director of PEN America, which supports free expression for writers; and Tanya Hernández, a law professor at Fordham — all agreed that private universities are not, as Greene said, “governed by constitutional standards.” The campus is “a regulated environment” and “very different from the public square.” The big question is how



The object in question: Plimpton 322.

Plimpton, donated thirty-four of them. A successful publisher, an advocate of higher education for women, and a trustee and the treasurer of Barnard College from 1893 until his death in 1936, Plimpton was an inveterate collector. Assisted by David Eugene Smith, a professor of mathematics at Teachers College, he snapped up wooden

a professor of mathematics at Baruch College. “He sold ancient tablets to supplement his main livelihood of growing oranges,” Kirby said. In 1923, Banks sold five tablets to Plimpton, including what would become Plimpton 322. Total cost: ten dollars.

In recent years, Plimpton 322 has become a teaching tool and a kind of scholarly



to decide what is permissible speech and what isn't.

With the yardstick of the First Amendment never far from their thoughts, the panelists drew their own lines. "US law — unlike the law in most of the rest of the world — doesn't regulate hate speech," said Greene. Not because hate speech is harmless, he said — "people are harmed by speech all the time" — but because of concerns over who gets to draw the line, and where. "Who," said Greene, "is the decision-maker?"

Columbia's stance is that the University should not be in the position of deciding which views its community should hear and which it should not. As Goldberg states on the Office of University Life website, "It is foundational to Columbia's learning and teaching missions that we allow for the contes-

tation of ideas," including ideas that "are deeply unpopular, offensive to many in our community, contrary to research-based understandings, and antagonistic to University tenets."

Greene noted that many objectionable speakers aren't so easy to categorize, and that "even provocateurs tend to gussy up what they're saying with pseudo-academic terms." But as hard as those lines are to draw, Greene said, that doesn't mean we shouldn't ever draw them. He used the example of a Holocaust denier: "I have no problem with administrators saying, 'Nope, not that one.'"

Hernández, an expert in anti-discrimination law, called for a more "nuanced" legal threshold, one that could deal with what she called "racially assaultive speech" — persecutory, hateful, or degrading messages directed

“The answer is not suppressing or restricting the speech, but rather having other voices speaking out.”

at historically oppressed groups. "Racially assaultive speech doesn't seek to enter into conversation," she said. "It seeks to shut people down."

Nossel, the closest thing on the dais to a free-speech absolutist, observed that the broad latitude of the First Amendment has been balanced by "strong norms of respect" in public discourse and taboos against hostile racial speech. She also acknowledged that

those taboos are now being eroded, and at the highest levels of government. "The question," she said, "is whether regulation is the answer."

Recognizing that some speech, while not considered "dangerous" by law, can still be damaging, Nossel argued that "the answer is not suppressing or restricting the speech, but rather having other voices speaking out — the university speaking in its own voice to repudiate noxious speech, and providing support to students who may be experiencing those harms." The goal, she said, was to both "keep the campus open and sustain this idea of a community that's welcoming to everybody."

For Hernández, however, asking students to endure injurious speech in the name of tolerance overlooked the fact that the weight of this responsibility was not evenly distributed. "Tolerance is an abstraction for people who are not targeted by hate speech," she said. "But vulnerable groups, racial minorities that are targeted by hate speech — we have an outsize burden to bear in tolerating it. To what purpose?"

Greene attributed the resistance to hostile speech in part to the potential of social media to "metastasize" hateful discourse. At the same time, he cautioned that what inflammatory speakers really want is the oxygen of attention, and that "regulating them can sometimes give them more oxygen."

In other words, in an imperfect world, there are no perfect solutions. "Human beings make mistakes on both sides," Greene said. But, he said, "at some point there's going to be a line, and human beings have to draw it."

— Paul Hond

A surreal, orange-toned landscape with jagged rock formations and a crescent moon in the sky. The scene is bathed in a warm, golden light, suggesting a sunset or sunrise. The rock formations are dark and jagged, with some smaller rocks scattered on the ground. The sky is a deep orange, with a crescent moon visible in the upper right. The overall mood is mysterious and otherworldly.

BRAVE NEW WORLDS

COLUMBIA ASTRONOMERS ARE GOING BEYOND OUR SOLAR SYSTEM TO UNDERSTAND EXOPLANETS, FIND EXOMOONS, AND EXPLORE ALL SORTS OF SURREAL ESTATE

BY BILL RETHERFORD '14JRN



This artist's concept allows us to imagine what it would be like to stand on the surface of the exoplanet TRAPPIST-1f, located in the TRAPPIST-1 system in the constellation Aquarius. The TRAPPIST-1 planets are remarkably close to each other. The star they orbit, an ultra-cool dwarf, would appear about three times larger than our own sun does in Earth's skies.

The sun, veiled by the mist of a soggy Manhattan morning, was undetectable outside David Kipping's thirteenth-floor office window in Pupin Hall on the Morningside Heights campus. But Kipping, an assistant professor of astronomy, was contemplating another celestial object anyway, one far more obscure — TrES-2b, the darkest world in the galaxy.

"It absorbs 99 percent of its sun's light," Kipping says. "That's less reflective than black paint." An artistic rendering of TrES-2b, hanging on the wall opposite the window, reveals a disk coal-dark, streaked with scorched red swirls.

In space, nothing is close, but TrES-2b is unthinkable distant, 750 light years away, about four and a half quadrillion miles from Earth.

TrES-2b is an exoplanet, a world outside our solar system, one of 3,529 verified by NASA as of October 2017. "But that," says Kipping, "is the tip of the iceberg. There are so many worlds, it's mind-blowing." Exoplanets are everywhere, scattered through the Milky Way like Motel 6 on the freeway. Scan the night sky, pick out any star, and it probably has planets; most all of the two hundred billion stars in our galaxy do. "On average, it's a few planets per star," says Kipping. That's approximately a trillion exoplanets.

Since the fall of 2015, Kipping's Cool Worlds lab, part of the Department of Astronomy at Columbia, has studied these extrasolar planetary systems. Cool Worlds searches for exoplanets, exomoons, and all sorts of surreal estate; six graduate students currently work in the lab. "We look for things mostly within the habitable zone," says Kipping. That's the sweet spot in any system, where planets are not too hot or too cold — a place where temperatures might be right for liquid water, a place where Earth-like worlds might exist. A place, Kipping says, "where life starts to become possible."

Kipping was eleven when astronomers found the first exoplanet orbiting a sun-like star — 51 Pegasi b — in 1995. Before that, most scientists regarded exoplanet searches as pseudoscience, like looking for UFOs, crop circles, or Roswell aliens; exoplanet hunters were considered eccentrics. "They were mavericks and radicals," Kipping says, "and not accepted for the science they were doing." Still, over the next decade, astronomers would discover a few hundred exoplanets, and in 2009 NASA launched the Kepler space telescope to find more. From seventy-five million miles out in space, Kepler surveyed the stars between the constellations Cygnus and Lyra, and swiftly spotted exoplanets all over the place.

Suddenly a fringe specialty became the most intriguing subject in astronomy. Initially, scientists looked for firsts: the first oxygen-rich exoplanet (Gliese 1132b), the first potential water world (Gliese 1214b), and the first Earth-size planet in the habitable zone (Kepler-186f). In March 2016, the Cool Worlds lab announced the discovery of Kepler-167e, one thousand light years away, the size of Jupiter and about as cold — 220 degrees below zero Fahrenheit. "The exhilaration you feel from an act of discovery is joyous," says Kipping. "Whether it's some little thing nobody else knew or an entirely new planetary system, you want to go out in the world and tell everyone. It's like being in love."

But the obsession with discovering new exoplanets — "a gold rush," in Kipping's words — has already died down. "We're past that," he says. "Now we're trying to fill out the missing details. We want to understand the stories of these exoplanets." Certainly astronomers already know basic things about them — their size, how long they take to orbit their stars — but little else. "We're now asking more meaningful questions," says Kipping. "What are their atmospheres? How much water do they have? What would it be like to walk on the surfaces of these worlds?" And of course, maybe the most tantalizing question ever, and surely the tease of the galaxy: do they have life?



The Kepler telescope, the size of an SUV and fortified with forty-two camera sensors, has scrutinized about 150,000 stars — an astoundingly slight patch of sky, about one ten-thousandth of 1 percent of the Milky Way. Go outside, make a fist, and extend your arm skyward; your fist represents roughly the portion of sky Kepler has seen.

Even from such a trifling sample, Kepler has generated a daunting assortment of data, as many as two million data points per star. Columbia is among the hundreds of universities and research centers worldwide that download and decode the data. "It's a treasure trove of discoveries," says Emily Sandford '17GSAS, a fourth-year graduate student on the Cool Worlds team. "It's more data than we know what to do with." Discovery is within the data — the exoplanet's radius, mass, shape, reflectivity, temperature, orbital period, atmosphere — markers that may signal if life is possible. The secrets of the galaxy, or at least some of them, are now stowed on Cool Worlds desktops. "Sometimes I think, 'My eyes are the only ones that have ever seen this,'" says Tiffany Jansen, a second-year graduate student.

Seeing is one thing. Deciphering is quite another. Simply put, Kepler collects the data by photographing stars and recording pixels of their light. Viewed on a computer screen, the stars appear as inscrutable bright globs. Orbiting exoplanets, if there are any, are not visible. But the pixels contain a critical piece of information that kickstarts every discovery: "They measure the star's brightness," says Sandford.

Within the billions of minutes of light measurements, Cool Worlds researchers can drill down to search for an eclipse-like event — a transit. That occurs when an exoplanet passes between its parent star and Kepler. "A planet passing by will block some of the star's light," says Moiya McTier, a second-year graduate student. "And the data will show that as a dip in the light." That dip, should it repeat at precise intervals, suggests an exoplanet is there.

From that dip, researchers can create a transit light curve, a graph replete with additional data. "By studying the light curve," McTier says, "we can figure out the physical characteristics of an exoplanet." As technology develops, they will be able to detect specific surface features, like oceans, vegetation, or polar ice caps. "Finding out things through the transit method, the limit is your imagination," says Kipping.



“THE EXHILARATION YOU FEEL FROM
AN ACT OF DISCOVERY IS JOYOUS.”

This artist's concept shows planet KELT-9b orbiting its host star, KELT-9. With a temperature of more than 7,800 degrees Fahrenheit (4,600 kelvin), KELT-9b is the hottest gas giant planet discovered so far.

SPACE THEORETICIANS HAVE
LONG RUMINATED ON EXOPLANET
LANDSCAPES. THEY SIMPLY
CALCULATE A PLANET'S DENSITY AND
THEN TAKE A SMART GUESS.





This artist's concept shows the surface of the planet Proxima b orbiting the red dwarf star Proxima Centauri, the closest star to our solar system. Proxima b orbits in the habitable zone, where the temperature is suitable for liquid water to exist on its surface.

Turning the raw data into decipherable computer files is a formidable process. “It’s just a long list of meaningless numbers,” says Sandford. “You can’t scroll through it and learn anything. To comb through the entire volume of data by hand would take ten years.” Sandford’s days are spent coding — converting the gibberish into information both manageable and coherent. “It’s basically computer programming,” she says. Write good code and your computer could take hours to crack what otherwise takes a decade. But writing good code isn’t easy. “For someone starting out,” says Jansen, “a lot of time is spent just figuring out what’s wrong with your code.”



Nearly nothing is known about the topographical features of exoplanets; Cool Worlds is just now scratching those surfaces.

Unquestionably, space theoreticians have long ruminated on exoplanet landscapes. They simply calculate a planet’s density and then take a smart guess. Molten glass rains down on HD 189733b; flurries of rubies and sapphires fall on HAT-P-7b; boiling lava coagulates on Kepler-78b; diamonds cover WASP-12b. None are outlandish claims, but they are all speculations. Iron, for instance, is one of the densest common elements in the universe. Hence, a dense planet might contain an abundance of iron. But maybe not. “There’s lots of leeway in the interpretation of data,” says Sandford. “It’s possible to infer a planet is partially made of carbon. And carbon is what makes up diamond. So a diamond planet is a possibility. But it’s not the only possibility. The uncertainties are quite large.”

What is known is that exoplanets come in two basic categories. “We can say some exoplanets are gaseous, and some are rocky,” says Jansen. “But that’s really the extent of our knowledge.” The rocky planets, like Earth and Mars, have solid surfaces. The gas giants, like Jupiter, Saturn, Uranus, and Neptune, may not sustain any solid surface at all. Plunge past their atmospheres, and instead of hard ground one could conceivably find a nebulous, plasma-like interior.

Jansen is surveying both types of exoplanets. Looking at their light curves, she searches for one thing: reflectivity. A highly reflective exoplanet suggests a surface that could be coated with ice. That presents the scientists with a fun extrapolation: ice signals the presence of liquid water, the quintessential biosignature, “a molecular fingerprint for life,” says Jansen. So let evolution augment the water with organic molecules, wait while they mingle and wallow for a billion years, and microbes might emerge. That’s extraterrestrial life, but Jansen cautions about getting carried away. Deducing the presence of water (much less life) based only on a planet’s reflectiveness is “very difficult,” she says. After all, trees and asphalt, two very different substances, mirror light at about the same intensity. Before reaching anything close to certainty, Cool Worlds must learn more.

McTier, meantime, will spend the next several years looking for mountains. “It’s going to be really difficult,” she says. “No one has ever found a mountain on a planet outside our solar

system.” But mountains cast shadows; McTier theorizes that shadows should show in the data. “They will cause jaggedness in the light curve,” she says.

If McTier discovers a mountain, the suppositions will begin. Here’s one: on Earth, plate tectonics made mountains possible — also hills, canyons, valleys, lakes, rivers, and oceans — all topographical antecedents that led to life. Perhaps a mountainous exoplanet has tectonic plates? If so, does that mean life is more likely there? “We can learn a lot,” says McTier, “just based on shadows.”



Exoplanets give off one-billionth the light of a star. Exomoons orbiting them are even fainter. No astronomer has officially discovered one, but Cool Worlds has a candidate — a possible exomoon orbiting Kepler-1625b, a gas giant at least six times the size of Earth and about four thousand light years away. The Kepler data is promising but inconclusive; Kipping obtained time on NASA’s Hubble space telescope this past October, hoping to corroborate his findings and proclaim a discovery. A final confirmation won’t happen until spring. Beyond that he says little else: “We’re being very cautious. We’re waiting to see what the data gives us.”

Discovering the first exomoon would surely be a spectacular find. But nobody will be startled. Exomoons, like exomountains, are expected. Stranger things have already been seen. “Look at the exotica coming out of exoplanets,” says Kipping. Hot Jupiters like TRES-2b (gargantuan, superheated, typically ten times closer to their stars than Earth is to the sun) are ubiquitous. “And nobody expected to find them,” he says.

Astronomers once thought our solar system was a template for the rest of the galaxy. Every inference about exoplanets was built on it. “But our solar system,” says Kipping, “is not typical.” With eight major planets and millions of asteroids, the solar system covers ten trillion miles. Yet compact systems seem more common. The seven TRAPPIST-1 planets, discovered this past February, are crammed in space; they occupy a congested area of barely six million miles — one-sixth the distance between the sun and Mercury, its closest planet.

About half the exoplanets have wildly eccentric orbits. But in our solar system, the planets’ orbits are basically elliptical; Earth’s is almost a circle. Our sun is categorized as a yellow dwarf star, middle-aged and relatively hot; but three-quarters of stars are red dwarfs — “older and dimmer,” says Kipping, and often one-tenth the size.

Hardly an analog to the rest of the galaxy, our solar system is actually an anomaly. “We’re not the freak of the universe — but we are a very poor approximation,” Kipping says. To Cool Worlds researchers, that might be the most startling discovery of all.



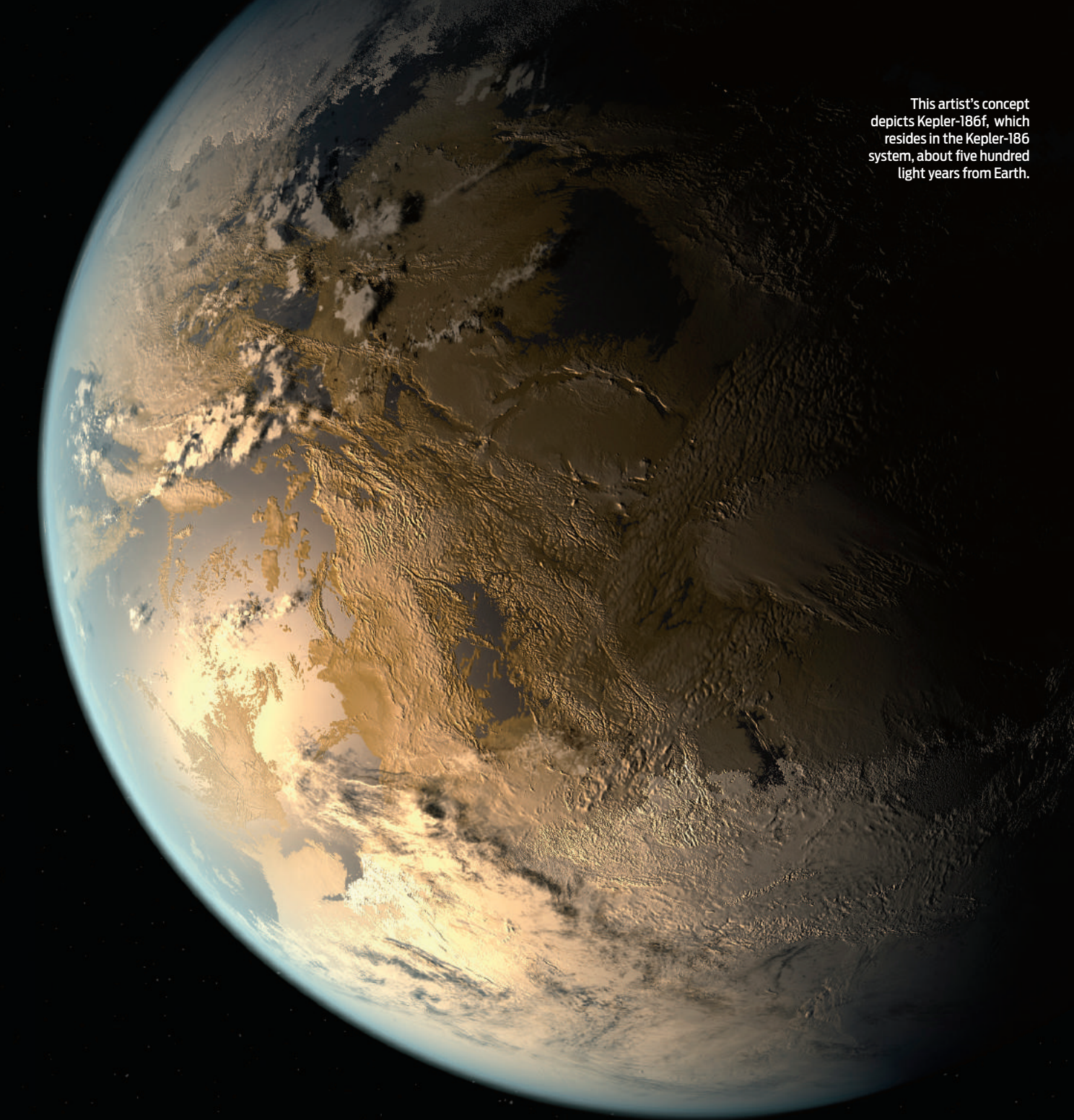
When astronomy was first taught at Columbia University (then King’s College) in 1754, little was known about the planets. The British astronomer William Herschel wouldn’t

find Uranus for another twenty-seven years, and Neptune’s reveal was ninety years away. Telescopes surveyed land more frequently than stars. In 1776 George Washington, then the Continental Army’s commander in chief, supposedly persuaded the College to loan him a telescope — the school’s only telescope — as a way to monitor British troop movements during the Battle of Long Island. Washington promptly lost both the telescope and the battle. There the story ends, and it may be apocryphal anyway. Whether Washington ever wondered about exotic worlds or extraterrestrials is unclear. But John Adams, Washington’s presidential successor, did. The universe, he said, is “both infinite and eternal,” and at twenty — almost the age of the Cool Worlds graduate students — he wrote this in his diary: “All the unnumbered worlds that revolve around the fixed stars are inhabited.”

Well, surely not all. But some? “I would be shocked if life was not elsewhere in the galaxy,” says McTier. Concur Sandford: “The odds of us being the only planet with life are kind of ridiculous.” Jansen remembers a Caribbean vacation at age nine: “My mom goes, ‘You’ve got to come outside and see the stars.’ I’m like, ‘Oh, fine.’ And then I saw this dome of stars. There were so many. I just looked at them — and then I thought, if every one of those stars has planets, there’s no way we’re the only living creatures in the universe. That was very specifically the moment I thought astronomy was amazing. I’ll never forget it.”

Of the trillion or so exoplanets estimated in the Milky Way, about 10 percent — one hundred billion — may hold water and reside in the habitable zone. Any life out there might scale from primordial microbes to technologically advanced aliens. “You’re looking at vast opportunities for life,” says Kipping. How much, what kind, where located? “I can’t even speculate,” he says. “There’s just no information to go on. Working with a single data point, we are completely stuck.” That single data point is us. Earth is the only example of life anyplace.

Although there’s now Proxima b, an exoplanet discovered in August 2016 and a potential analog of Earth — about the same size, in the habitable zone, and as a bonus, only four light years, or some twenty-four trillion miles, away. Celestially speaking, that’s just across town. Cool Worlds researchers, captivated by Proxima b, are contributing to Breakthrough Starshot, the initiative founded by the celebrated physicist Stephen Hawking and Facebook CEO Mark Zuckerberg. The proposed project is an outrageous venture: somehow develop and ultimately dispatch an uncrewed nanocraft to snap flyby photographs of Proxima b. The preferred cruising speed for the probe is approximately 37,200 miles per second, one-fifth the speed of light. Travel time should be twenty-one years. Getting the probe ready to go could take at least that long. But imagine what might be in those photos. Oceans? Vegetation? City lights? Not much of anything? Who knows. “There’s a chance,” says Kipping, “that when I’m retired I might see a photo beamed back.” That image could forever change the way we see not only the exoplanets, but ourselves. ♣



This artist's concept depicts Kepler-186f, which resides in the Kepler-186 system, about five hundred light years from Earth.

PICTURING PLANETS

The images you see of these alien worlds are imaginative renderings created by multimedia artists in collaboration with NASA astronomers. The depictions are largely speculative, drawing a fine line between scientific precision and artistic inspiration. Typically, the designers have minimal information to go on — the exoplanet's size, if it's rocky or gaseous, the distance from the star it orbits, and perhaps a rough idea of its temperature. Scientists work with the artists to rein in creative overreach and ensure as much accuracy as possible. Color choice is critical. Generally, shades of blue or green are eschewed, since blue may be too suggestive of an exoplanet with abundant water, and green can suggest plant life. Rocky worlds with visible surface features are the most difficult to design, and often require several days' work. Gas giants, blistering balls of fire, usually take less. Either way, these otherworldly illustrations, seen in virtually all media worldwide, continue to captivate millions.

NursesFirst

How three women in New York are improving health care in Liberia with one simple but effective strategy **BY PAUL HOND**



Nursing for All founder Laura Jean Ridge (right) and board members Jessica Buesing (center) and Jennifer Walsh (left).

PORTRAITS BY JÖRG MEYER



When Laura Jean Ridge '10NRS travels to Liberia,

as she does twice a year, she likes to arrive on a Sunday, which is church day. Life comes to a standstill then, and Ridge, a warm, energetic, go-getting sort of person, can decompress in her hotel room in Monrovia from the seventeen-hour flight from New York. She makes calls (cell-phone service, like Internet access, is spotty) and sets her schedule (plans in Liberia often change at the last minute). Then, on Monday morning, as the West African country resumes its workaday rhythms, she steps into a whirlwind week of meetings and visits.

Ridge, thirty-three, is the founder and president of Nursing for All (NFA), a nonprofit that takes an unusual bottom-up approach to community health: supporting local nurses who devise and run their own health-care initiatives, based on their intimate knowledge of life on the ground.

Many doctors fled during the war, and nurses assumed the burden of providing medical care. Even today, “nurses are the backbone of the health system in Liberia,” Ridge says. And she is adamant about ensuring that NFA nurses remain where they are needed most. “We don’t want to contribute to an internal brain drain,” she says. “Every nurse that works with us must have at least a part-time job in the health field in Liberia.” With NFA nurses’ contributions to existing health services assured, Ridge can then tout the advantages of joining the organization. “We supplement your income, and you get to run your own initiative,” she says. “You set the budget, make the contacts, and set up the clinical interventions for approval. You’re the boss.”

Kormassah Baysah, a neonatal nurse, is NFA’s Monrovia program director. She’s the first person Ridge meets with on Monday, at a café called the Donut Bar. While all eleven NFA nurses in Liberia send Ridge monthly status reports on their patients, Baysah is the in-country liaison, there to support and advise the nurses and share her observations with Ridge. Over coffee they discuss nurse-midwife Delkontee King’s



As NFA board member Jessica Buesing '13GS, a fourth-year medical student at the College of Physicians and Surgeons, explains, “It’s easy to have ideas of what people need in global health settings and sort of impose our solutions. A lot of organizations — with the best of intentions — aren’t necessarily always addressing what’s essential.” Buesing, Ridge, and Jennifer Walsh '09NRS compose NFA’s programming committee, offering clinical advice, funding, and wide-open ears to their Liberian counterparts. “Putting the nurses first is what makes this such a novel idea,” Walsh says.

When NFA was established in 2013, there were about fifty doctors in Liberia, serving a country of some 4.5 million people. Liberia was founded in 1847 as a US colony for ex-slaves and free African-Americans, and the society formed along colonial fault lines, as the newcomers subjugated the indigenous population. Political and social domination by the Americo-Liberians over the local tribes became entrenched. Tensions built up, and in 1989 the country spiraled into a protracted civil war, marked by executions, torture, a high rate of civilian casualties, and the use, on both sides, of child soldiers. The conflict ended in August 2003 after the abdication of President Charles Taylor.

family-planning initiative, which offers contraceptives and counseling. Baysah says she’s impressed by how well King is known and respected in her community.

The next day, Ridge visits the Liberia Board for Nursing and Midwifery, the body that licenses nurses in Liberia. From the start, the board has welcomed NFA and helped Ridge by managing the payroll, reviewing NFA plans, and giving feedback. When NFA was trying to set up salaries, Ridge turned to the board to get a baseline.

After the meeting, Ridge goes back to her hotel and gets ready for a road trip to Ganta, Liberia’s second-largest city, two hundred miles to the northeast, about a mile from the Guinean border.

In 2012, Ridge was working as a nurse practitioner at an addiction treatment center in New York. The job ended at 4:00 p.m. sharp. Finding herself with extra time, she began looking for volunteer opportunities with groups that supported nurses in underserved communities. She was astonished at how few there were.

Ridge began thinking about starting her own nonprofit. But where to serve, and how to begin?

LEFT: MOLLY KNIGHT RASKIN; CENTER AND RIGHT: LAURA JEAN RIDGE

Putting out feelers, Ridge called her alma mater, the School of Nursing, hoping someone there could give her advice. She was referred to Richard Garfield '86PH, a professor of clinical international nursing who had worked for the UN in Liberia.

Garfield, now a professor emeritus at the School of Nursing and an international health officer for the Centers for Disease Control and Prevention, admits that he tends to cast a skeptical eye on the ambitious plans of young, energetic idealists. "Many students want to get engaged in the world and do some international work," he says. "Often, it's a modified version of tourism: have some fun on the beach, drop by the clinic. But there are some people who really are serious and engage for the long term. I remember Laura being incredibly resilient and determined."

Garfield spoke to Ridge about his experience in Liberia, a country that, despite being the fourth-poorest on earth, has a strong nursing culture, with four "competent to good" nursing schools. In Garfield's view, Liberia was a place where advanced nursing practices and basic nursing education could be promoted. "That's what I was steering Laura toward, but she

University, at both the Monrovia and Ganta campuses. Ridge was surprised that the nursing leaders of Liberia were willing to spend so much time with her. It gave her confidence to forge ahead.

Back in New York, Ridge got to work, jumping through the legal hoops to form a nonprofit and then raising enough money from friends and family to get started. The organization went live on May 12, 2013 — International Nurses Day.

Ridge, Walsh, and Buesing all came to the health field after college. Ridge grew up in Princeton, New Jersey, and went to Harvard thinking she'd become a lawyer. It was while doing volunteer work in the Boston neighborhood of Dorchester that she saw a distinct correlation between physical and mental health. People in poor health were less likely to be happy or successful. This problem interested Ridge. She considered getting a master's in public health, but then decided that she really wanted a clinical degree. And so she turned to nursing, an in-demand profession that had, among other qualities that



NFA nurses Gabriel Tounzea (left, with name tag), Sophie Reeves (center, at lectern), and Annette Toegbaye (right, in green).

didn't let me steer her much. She's very entrepreneurial, and she just took off and made it all happen."

Ridge sent out e-mails to nursing schools in Liberia, laying out her idea for a nurse-led public-health initiative, and she received an eager reply from the West African College of Nursing. Representatives from the Monrovia chapter wanted to meet. Within a matter of weeks, Ridge got her yellow-fever shot and flew to Liberia.

In Monrovia, she met with the Liberian Board for Nursing and Midwifery and visited the nursing school at United Methodist

appealed to her, "a strong public-health perspective." Now she lives in Lower Manhattan with her partner, Matt Gline, and their adopted pit-bull mix, Josie ("She's pretty much the boss of me"), and is working on her PhD in nursing.

Walsh was raised in Rye, New York, and got her BA in political science from Trinity College. She began working for a health-care nonprofit in New York and realized she wanted "a more hands-on career." Then she had an experience as a patient: she was treated by a nurse practitioner — a nurse with advanced training who, like a doctor, can diagnose and treat patients and

“The nursing model is very patient-centered and very much about ‘What does this human being in front of me need?’”

prescribe medication — and was “amazed by how comprehensive her approach to my care was.” Intrigued, Walsh decided to check out the School of Nursing’s open house in Washington Heights. “I was blown away not just by the faculty, but also by how excited they were about the field, whether as nurses, clinical researchers, PhD students, nurse practitioners, midwives, or clinical nurse specialists. It seemed there was no end to where you could go with this. So I signed up, and off I went, and I haven’t looked back since.”

Buesing, a native of Southern California, went to Williams College, where she studied music and psychology. She was interested in health but overwhelmed by the options. She needed some advice. Her boyfriend (now her husband), Robert Buesing ’16BUS, happened to work with Matt Gline, and the two men arranged a call between Buesing and Ridge, in which Ridge described her own work as a nurse practitioner. Buesing was sold, and applied to the School of Nursing. During her first year, having become, in the course of her training, “passionate about physiology and pathophysiology,” Buesing switched to medical school. But her heart is still with the nurses.

“The nursing model is very patient-centered and very much about ‘What does this human being in front of me need?’” Buesing says. “I remember my first rotation in nursing school: my first patient was somebody who couldn’t do anything for himself, so I would clean him, feed him, move him, and get blankets for him. It’s a very nurturing role that I really love.”

One of the first Liberian nurses that NFA recruited was Aaron Debah. There are a few things that make Debah unusual; not least is his specialty. Most nurses treat physical ailments — malaria, HIV/AIDS, high blood pressure. But Debah is focused on mental-health conditions, which are less understood, and bound up in superstition, doubt, and stigma.

In 2011, Debah was among the first graduates of a course started by the Atlanta-based Carter Center to help establish Liberia’s first mental-health program. There was, then as now, one psychiatrist in the whole country.

When he started, Debah was the only mental-health clinician not just in Ganta but in the surrounding county. The region’s sole hospital, where Debah works, serves half a million people, many of whom lack running water and electricity. Debah has a mental-health radio show and invites listeners to call his cell phone. Often he will walk long distances to visit individual patients.

Ridge met Debah during her first trip to Liberia. Now thirty-six, Debah, who survived the war by hiding with his family in the bush, has the unrelenting, do-what’s-needed manner of nurses everywhere, but which in him seems distilled to its purest



Aaron Debah (left) speaks with a patient. In Liberia, families are often involved in their relatives’ care.

form. “When I think of my own stories, about my own life, going through the course of the war, I feel challenged to help these people,” Debah told journalist Molly Knight Raskin ’02JRN, who has been making a film about him since 2011.

NFA support can hardly account for Debah’s fortitude, or the scope of his work, but in combination they have yielded significant results. Raskin observes that simply by being allowed to admit their problems and talk about them with Debah, people are getting better: they start working again, care for their children more attentively, or talk to others about their depression. “This was an area completely ravaged by war, and people carried that event with them,” Raskin says. “Acknowledging their trauma was a starting point. Aaron is breaking open that shell of trauma, giving people an outlet to talk about it and reducing the stigma.”

As Ridge points out, families tend to be very involved in relatives’ care in Liberia, and so Debah never really addresses just one person. “It’s very rare to decontextualize the illness from the family structure,” Ridge says. “In the US, I’ve had dozens of patients whose significant others I’ve never seen. In Liberia there is a larger family context that must be dealt with, and Aaron is fully committed to dealing with that and other social structures that influence a lot of mentally ill people.”

On March 24, 2014, PBS *NewsHour* aired a segment about Debah’s work, produced and narrated by Raskin. The week after the broadcast, the Liberian government reported that two people in Ganta had tested positive for the Ebola virus. These were the first known cases in the country. Over the next year, Ebola would kill five thousand Liberians, many of them front-line health-care workers.

Walsh, who now works as a nurse practitioner in a women’s health practice in New Jersey, was an NFA donor when Ebola struck. She says she was “floored” by how adaptable the organization proved to be during the crisis, changing its programs in the face of this new horror. Liberian nurse Christina Andrews made sure that her HIV patients had access to their medications after the Ebola outbreak forced their

Monrovia hospital to close. Others focused on Ebola education and prevention, such as encouraging handwashing. “Having nurses in Liberia identifying needs and implementing relatively simple solutions that could help a large group of people was incredible to see,” says Walsh. She was so impressed that in 2015, when Ridge asked her if she would join the board, Walsh embraced the offer.

According to Richard Garfield, NFA’s results make sense: smaller organizations, funded by individuals, have the flexibility to deliver more targeted care, whereas large international organizations — ones heavily funded by governments or the UN — must adhere to their benefactors’ conditions, however flawed or inexpedient.

well. They are in need of care, and you are there, and at the end, they say, ‘Thank you. I’m well today.’ That brings satisfaction to me.”

Ridge makes the most of her few more days in Liberia. She visits a community near Ganta, where dirt roads lead to smaller homes with dirt floors, and people cook their food outdoors. There, nurses Gabriel Tounzea, a Carter Center mental-health program graduate, and Solomon Yah, whose NFA initiative addresses hypertension, make house calls. Later, back in Monrovia, Ridge meets Aaron Debah in a café. Debah is excited about having been admitted to a health-policy program that will take him to India for two weeks. Into the weekend, Ridge

“This was an area completely ravaged by war, and people carried that event with them. Acknowledging their trauma was a starting point.”

“If you’re a small organization with a long-term commitment in one place, rather than trying to staff offices in a dozen countries, it’s easier to do the right thing in paying close attention to what the caregivers themselves are saying,” Garfield says.

During the Ebola epidemic, Aaron Debah risked his life every day tending to the sick. He had a wife and three kids, including a newborn. At one point, he developed symptoms and had to quarantine himself from his family. It turned out to be malaria.

The Ebola outbreak wiped out hundreds in Debah’s community. Debah persevered. With great tenacity and optimism, he took on more work than ever, helping survivors recover psychologically.

The city of Ganta has begun to come back from the war and the epidemic, but there’s still a long way to go. Ridge, after a four-hour drive from Monrovia, arrives in Ganta on Tuesday night. She checks in to Jackie’s Guest House, a small, well-lit, lively hotel with a restaurant and free Wi-Fi.

The next day, Ridge meets up with Adolphus Andrews, a nurse with some training in dentistry who runs an NFA initiative for oral health, and Clinton Zeantoe, the dean of United Methodist University’s Ganta campus, who installed clean-water systems in local schools to protect children from waterborne illnesses.

When asked why he became a nurse, Zeantoe says, matter-of-factly, “I wanted to serve humanity. It’s not about money. You contribute to helping someone who is ill, and you see them get

makes more site visits with nurses Sophie Reeves (in-school HIV initiative), Tohdy Nyemah (pre- and post-natal care, including HIV testing), and Annette Toegbaye (hypertension and diabetes).

Standing on people’s porches during home visits, Ridge watches and listens, noting the quality of the patient-nurse interactions. “It’s always interesting to see how enthusiastic a community member is to see the nurse,” she says. “You can tell there’s a relationship. That’s important, because a lot of what we do is teach and make recommendations, and in order for recommendations to function as treatment there has to be a lot of trust. These nurses have done an amazing job cultivating trust with their patients.”

After a week in Liberia, Ridge will have plenty of facts and figures to share with her board. Ridge, Walsh, and Buesing all emphasize the importance of organizational introspection. Are the initiatives working? Are they reaching the right number of people? How should they measure success? How should they fine-tune the metrics so that supporters can see where their money is going?

It’s Sunday again. Ridge awakens. Church bells ring.

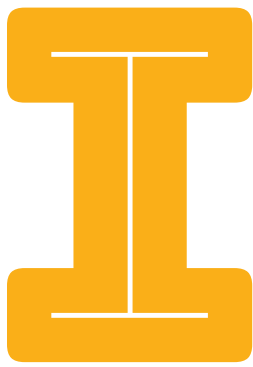
Ridge packs her bags, gets a car to the airport, and boards her flight. As her plane ascends, she can see, out the window, the Mesurado River snaking through Monrovia to the Atlantic Ocean. She’s always a little sad to leave — it’s like leaving family. But she knows that the people she saw in hospitals and homes are in caring hands, knows that the nurses of Liberia will be on the ground, doing what needs to be done, as they always have. ✪



LETTER HEAD

Scrabble prodigy Mack Meller
minds his Ps and Qs, catches a few Zs,
and is never at a loss for words

By Paul Hond \ Illustration by Dave Wheeler



In 2011, Mack Meller went to Stamford, Connecticut, for a Scrabble tournament. In the first round, as he was settling in, the tournament director interrupted play for an announcement. This was highly irregular. But the news warranted it: Joel Sherman, a forty-nine-year-old former world champion from the Bronx,

had just finished a game with 803 points — a new world record in tournament play and the first time a tournament player had ever broken 800.

Meller and his opponent, having stopped their clocks (in tournament Scrabble each player is allotted twenty-five minutes to make all of his or her plays), placed their tiles face down and walked over to Sherman's board. So did lots of other players. Meller couldn't believe it. Eight hundred! That was Scrabble's holy grail. Sherman had used all seven of his letters — called a “bingo” and good for fifty extra points — seven times.

It was a feat for the ages, but Sherman didn't win the tournament. Meller did. He was eleven years old.

It's Thursday night, and Meller, now a lanky, sociable seventeen-year-old Columbia first-year, leaves his room in Furnald Hall and heads for the subway. He carries his Scrabble traveling bag, which contains a round board, a chess clock, and a drawstring sack filled with exactly one hundred yellow plastic tiles. He gets out in Midtown and walks to a fifteen-story building at Lexington and East 58th, where, in a room on the twelfth floor, the Manhattan Scrabble Club holds its weekly rodeo.

“One of the great things about being at Columbia, aside from the outstanding academics and a diverse peer group, is the proximity to the club,” says Meller, who is the top-rated under-eighteen Scrabble player in North America, a distinction he has held since age twelve. “You get to play against some of the best players in the world.”

The Scrabble room is located inside the Honors Bridge Club. It has beige walls, waiting-room art, fluorescent lights. About twenty Scrabble players, women and men, sit at blond wooden tables, hunched over boards. There is an out-of-time quality to the scene, faint flavors of a bygone canasta night at Grossinger's or the Concord. Meller, bright-eyed, mild-mannered, palpably well-adjusted, strikes the room's most contemporary note. You might never guess that in this den of hardened, seen-it-all Scrabblers, Meller, not yet of voting age, is the deadliest.

Meller first stepped foot in the club at age ten. His parents drove him to the city from Bedford in Westchester County, where he grew up. That year, he played in his first tournament — and lost the first game. “I was demoralized and very rattled,” Meller says. “I had to really stay focused to claw my way back.” He nailed seven straight victories and won the tournament. “Even more valuable than winning was having to come back from losing the first game,” Meller says. “Whether it's through making a mistake or just poor luck, you're going to have bad games. You can't dwell on it or you'll continue to go south.”

Though Meller prefers live competition and the touch of the tiles under his fingertips, he has played untold hours of virtual Scrabble, either online against humans or against Quackle, the Deep Blue of Scrabble software. His own mind is computer-like: of the 120,000 words in the Scrabble lexicon, some 90 percent are filed between Meller's ears. Lately, he's been studying nine-letter words (requiring letters already on the board), a rarity in Scrabble and “not the most productive use of my time,” Meller admits. “But I love the long words, and when I do get to play them it's really rewarding.”

At seven o'clock, the club's director, Joel Sherman — *the* Joel Sherman, thin and spectral, Poe-like in aspect — calls out the first matchups. Meller will play Debbie Stegman '85BUS.

Stegman, a former vice president of human resources at Time Warner, has been ranked as high as forty-second in the country. She grew up on Long Island playing Scrabble with her mother and grandmother. “One big rule in our family, for any games, was that you don't let the kid win,” she says. “So I would lose 310–112. But I knew that the first time that I won, I *really* won. And it was awesome.” She began playing in tournaments in 2000 — the year Meller was born — and reached her peak rating while between jobs (“Unemployment does wonders for your Scrabble game”).

She remembers Meller's precocious debut at the club. “Mack never played the first word that he saw, even at a very young age. It's a tendency for any player, let alone a young person. You get so excited: ‘Oh, I have a seven-letter word and can get sixty-two,’ and you don't even look to see that you could get ninety-five. Mack gets the ninety-five.”

Now, over the table, Meller wishes Stegman good luck, and in a moment the room fills with the ear-perking percussion of tiles rattling in their pouches.

Players use a score sheet to keep track of the letters still available, and hit their clocks after completing each play. Meller goes first, with JOLTY for thirty points. Then it's a war of words: GLOOP, TROILITE, AMOEBAS. The room grows quiet, and the only sound is the clicking of tiles being rearranged on the racks. Stegman bingos with RESHINE for eighty points. Across the room, someone calls out “Challenge,” and Joel Sherman, a thick Scrabble dictionary in his hand, springs from his desk at the front and moves to the table like a filing to a magnet. Meller bingos with PINCERS, the last three letters attaching to H, ODE, and PAR to form EH, RODE, and SPAR, for a score of eighty-seven.

When architect Alfred Butts of Queens, a lover of crosswords, chess, and jigsaw puzzles, invented Scrabble in 1938, he could not have foreseen players like Meller, let alone the game's explosion in popularity, or its rise to the upper firmament of cerebral, universal board games like chess and go. The first tournaments were held in 1973 in Brooklyn and the Catskills, and while New York is still Scrabble's nerve center, world-class players have emerged in Australia, Nigeria, and even non-English-speaking countries like Thailand. Players are rated by the Elo system, the same formula used in chess. An “expert”

rating is 1600, which Meller reached at age eleven, making him the youngest expert on record.

“What I love most about Scrabble are the mathematical and the strategic elements, and also the randomness factor,” Meller says. “There are so many different possibilities. In chess, it’s always the same openings, the same positions. In Scrabble, no two games are the same. I doubt two Scrabble games have ever been identical after the second play.”

Scrabble is not simply a word game. As journalist Stefan Fatsis, author of the best-selling *Word Freak: Heartbreak, Triumph, Genius, and Obsession in the World of Competitive Scrabble Players*, says, “Scrabble is a math game. It’s about probability, board geometry, spatial relations, and pattern recognition. The best players, like Mack, have beautiful mathematical minds.



Mack Meller

They are assessing a pile of information: the score, their tiles, the unseen tiles, the layout of the board, and the amount of time left on the clock. They are searching for, and choosing from, a handful of plays, and deciding how each one will affect their likelihood of winning. And they make those calculations in seconds.”

Like many top players, Meller is also adept at chess, and might have gone in that direction early on, if he hadn’t felt so warmly at home in Scrabbleville. “It’s a tight-knit community, with people of all sorts of backgrounds and ages,” Meller says. “I’m good friends with a lot of different people. One of the things I love about the community is that everyone’s so supportive of each other and always willing to offer advice.”

“There is a tremendous intellectual camaraderie at the top of this game,” says Fatsis, who is ranked 184th in North America, “and when someone like Mack walks into this world, the players want to nurture him. They saw his genius immediately and embraced it. And they became like a family to the Mellers.”

Clearly, Meller found his tribe. At tournaments he’ll often room with friends, and after games they’ll all go out together and talk about Scrabble and give each other word puzzles.

“Once, after a tournament, we went out to eat,” Meller says. “A friend noticed a bottle of ketchup on the table and said, ‘What’s the shortest word containing all the letters in ‘ketchup’ that’s not related to ketchup?’ We all thought about it for a while, and finally somebody found it: it’s ‘superthick.’” Meller hastens to add, “I was not the one who found it.” He smiles. “That was a great puzzle,” he says.

Meller, who was homeschooled, began playing Scrabble at age five. Within a few years he was going round for round with the grownups, including his Scrabble-savvy father. This prompted his mother to call a Scrabble expert and teacher

named Cornelia Guest, who ran a kids’ Scrabble club at a library in Ridgefield, Connecticut, a thirty-minute drive from Bedford.

“I got a call from Jessica Meller, who said another parent had suggested she get in touch because her son is really good at Scrabble,” says Guest, with a wry inflection that indicates this is the sort of call she receives often. “I said, ‘Let me play a couple of games with him online.’” They played, and Guest found that Meller was missing a lot of words — he simply didn’t know them. But his instincts were sharp. Guest invited Meller to the class, and they played a game.



“I saw a nice S hook and I had an S, so I was excited,” Guest says. “Then Mack, who also had an S, used it to make a play over two double-word scores. I thought, *Whoa*. He could also calculate the scoring instantly. I beat him in that game just because I knew more, but after that class I said to the

librarian, ‘This kid is probably the best I’ve ever seen.’ I just knew right away. He loved words, loved the math, loved the other kids. Loved the game.”

That June, before summer break, Guest gave Meller 350 flash cards of seven- and eight-letter words containing five vowels, like *ABOULIA* (an absence of willpower) and *EUPNOEA* (normal breathing). By the time Meller returned in September, he had memorized them all. And now that he knew the words, and everybody knew he knew them, he could bluff — could play an invalid word with the confidence that no one would challenge him, since losing a challenge carries a stiff penalty.

Meller had moved beyond the class. Guest, seeing what she had on her hands, referred the Mellers to three-time national champion Joe Edley, who gave Meller some lessons. One day, Fatsis, the scribe of Scrabble, got an e-mail from Edley saying, “I have found the next champion. And he’s ten years old.”

Joel Sherman saw it, too. “I was at Mack’s first tournament, in Albany, and he destroyed the lowest division,” Sherman says. “He was a standout. He’s very quick and patient and analytic, and totally focused on trying to make the best play at all times. The luck factor — the letters you draw or don’t draw — makes it possible for you to play a perfect game and still lose. You have to continuously focus on making those best plays, and more often than not, making the best plays *will* result in a win.”

In games, Meller projects pure composure: he is serene, unflappable — what Sherman calls “the perfect temperament.” Win or lose, he loves nothing more than to analyze a game afterward with his opponent. He’s more interested in process than his personal feats. But he knows his numbers. His highest score in a tournament game is 670; only twenty-five tournament players in North America have cracked 700. His highest-scoring play was the time he dropped OBLIQUED across two triple-word scores for 230 points. And his rating of 2076 places him fifth on the continent.

“What Mack has accomplished is extraordinarily impressive,” Goldman says. “In whatever he chooses to do, he has the whole world before him.”

At the club, Meller and Stegman finish their game (final score: Meller 457, Stegman 406). Then they go back and dissect their final moves, taking back letters, undoing the architecture, exploring alternate structures and destinies. After a couple more games, Meller says his goodbyes and heads back up to campus.

“AFTER THAT CLASS I SAID TO THE LIBRARIAN, ‘THIS KID IS PROBABLY THE BEST I’VE EVER SEEN.’”

Before there was Mack Meller, there was Dan Goldman ’04CC. Like Meller, Goldman began playing with his family at age five. He joined a Scrabble club in Manhattan, and at ten, the year his family moved to Westchester, he played in his first tournament.

“I loved words at an early age,” says Goldman, who works as in-house counsel and strategic planner for several of the holdings of a New York-based venture capitalist. “I was also very interested in math, and intrigued by the probabilistic and statistical aspects of the game. And I loved the intellectual challenge and engagement of matching wits against highly intelligent people in a game that, the more I played, revealed more and more strategic layers.”

While at Columbia, Goldman was the top-ranked under-twenty-one player in the country. He was wordsmacked, letterstruck, and found particular rapture in Michael Seidel’s James Joyce classes. “I’d spent so much time as a kid looking at odd sequences of letters and strange words, and Joyce was obviously a writer who was obsessed with and immersed in the intricacies of the language,” Goldman says. “You’ll see neologisms and ‘portmanteau’ words — words put together. I found it magical. I’d stare at *Finnegans Wake* and think of what combination of obscure words Joyce tried to anagram together.”

Good anagramming ability is key for Scrabble, Goldman says. “Players will study combinations of letters that they know how to unscramble in their heads under time pressure — for instance, A-E-I-G-L-N-R-T makes ALTERING, INTEGRAL, RELATING, ALERTING, TANGLIER, and TRIANGLE. If you can see these patterns quickly, you can spend more time on strategy.”

Goldman went on to law school and no longer had time for competitive Scrabble. But he’s kept an eye on the old domain.

It’s been a busy first semester. Meller is figuring out how to make time for all his interests while carrying a full load, including a physics course on general relativity and a math course called Modern Analysis, which he describes as “kind of like very rigorous root-based calculus.” He plans to major in math or astrophysics — or both. But Scrabble night remains a priority. He’s even begun attending the Tuesday-night meet-ups of the Columbia Chess Club — on a strictly casual basis. “I hadn’t played chess in eight years,” he says.

As for official Scrabble tournaments, Meller’s last one was the 2017 North American championship, held this past July in New Orleans. Meller finished second to his friend Will Anderson, a thirty-two-year-old textbook editor from southeast Pennsylvania. But being a college student inevitably means less time to travel to tournaments, and so it’s by a stroke of luck that a tournament is coming to Meller, to be held during midterms inside a games café called Hex & Company, on Broadway at West 111th — just four blocks from Furnald Hall. The café is a board-game emporium for people who like to roll dice and turn up cards and draw tiles from bags. The tournament director is Cornelia Guest, Meller’s first mentor. Joel Sherman will be there to play. So will Joe Edley. Meller’s father, Noel, will also be competing.

“My dad hasn’t really studied anything beyond two-letter words, but he enjoys playing, and he’s very good at finding bingos on his rack,” Meller says. “I’ve convinced him to play a couple of one-day tournaments, so it’s a lot of fun.”

In some ways, then, the tournament at Hex & Company will be a homecoming — a letter-perfect touch. It will spell out exactly what Meller means when he says, as he often does, “Scrabble is about so much more than the actual game.”

RAISE YOUR SCRABBLE IQ

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XI · XU · ZA

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QOPH · WAQF

Longest words with all consonants (plus y)

GLYCYLS · RHYTHMS
TSKTSKS

Phillip Lopate in the late sixties.



Confessions of a

Reluctant

Revolutionary

During the campus protests of 1968, writer **Phillip Lopate '64CC**, today a professor in the School of the Arts, joined an alumni group supporting the student radicals. Now, almost fifty years later, he's still trying to make sense of his place in that time.



Much as I shy away from the very notion of generational identity, I must own to being a creature of the sixties. Born in 1943, I entered Columbia as an undergraduate in 1960, graduated in 1964, and was influenced unsystematically by that period's anti-Establishment attitudes. The sixties have been so mocked, caricatured, or flattered by later generations that anyone who lived through that era sometimes seems to have had only two choices: loyal defender or turncoat. What often is missing, which I would like to propose, is a middle path: critiquing our mistakes and misconceptions while remaining sympathetic to the era's spirit of idealism and experimentation.

"The personal is political" was a slogan back then. I would not go so far as to equate the two, but I would argue that one's private circumstances do have a bearing on one's political views. So here are a few personal facts: in my senior year at Columbia, I had gotten married; we had lived abroad for a year and then returned, my wife supporting me while I tried to write a novel. Ultimately, I

managed to eke out a tiny living ghost-writing and working for an antipoverty program. By 1968, our marriage was in serious trouble. We had moved from secluded middle-class Inwood, on the upper tip of Manhattan, down to West 103rd Street, a dozen or so blocks south of Columbia, to be closer to the action, and suddenly there was plenty of action. Student protesters had occupied five buildings on campus in April 1968. It seemed worth checking out.

Having graduated four years earlier from Columbia College, I was drawn to the student rebellion for several reasons: (1) opposed as I was to the Vietnam War, I had been participating in marches in New York and Washington, DC, distributing flyers to unsuspecting pedestrians, and generally answering the call; (2) having spent several years in writerly isolation, I was looking for excitement, communal and erotic (file under: "the personal is political"); and (3) I envied the students their fun. The Columbia I had gone to at the beginning of the sixties was a staid, tweedy place. We had aspired or pretended to be sober, mature grownups, and in consequence, I felt I was missing out on my youth. As a latecomer to the bacchanal, I wanted to protest and to party.

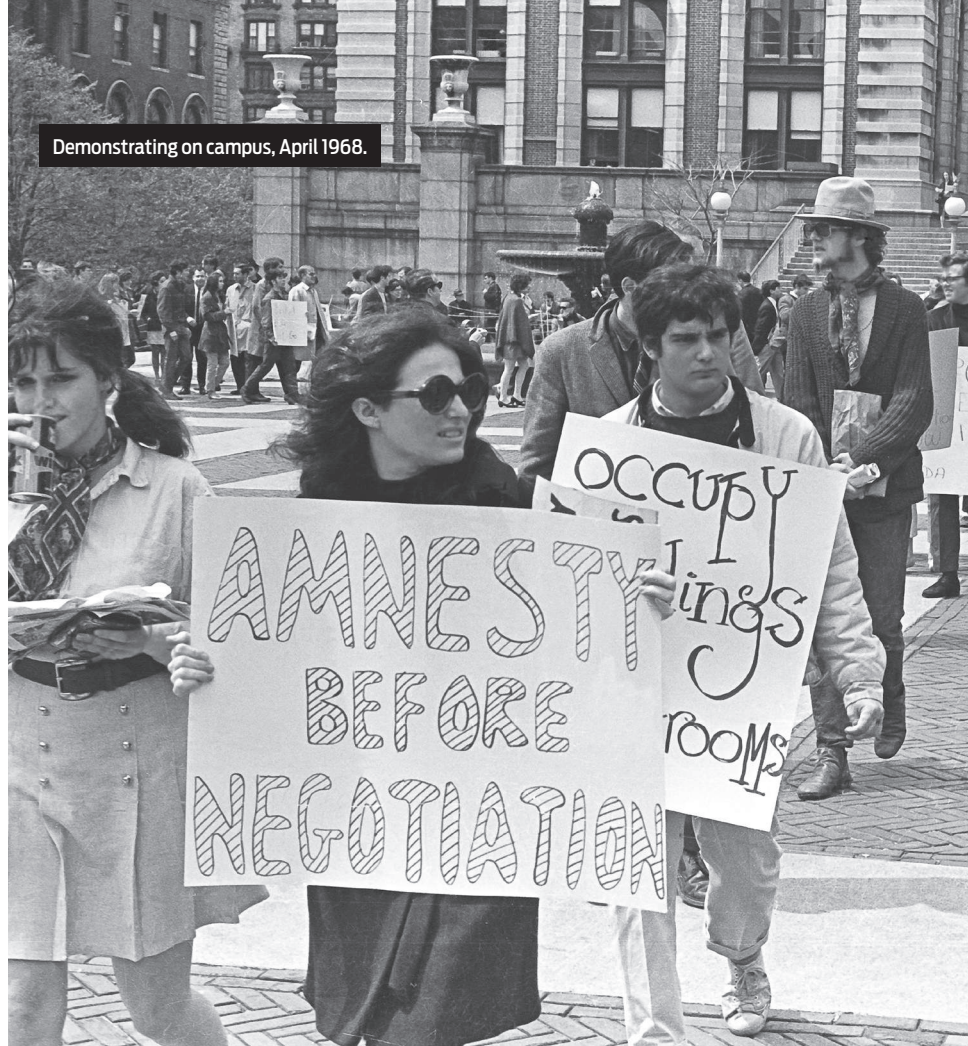
I visited the first floor of the student center at Ferris Booth Hall (since torn down), which had been taken over as strike headquarters. Before we could enter, we had to be vetted by somber student guards wearing Che berets. I was immediately struck by the theatrical *mise en scène* of it, the air of dress-up, a militancy pastiche thrown together from Ho Chi Minh's North Vietnam, Fidel's Cuba, and Mao's China. Card tables carrying pamphlets, posters, radical literature, buttons, and other revolutionary paraphernalia lined the room. The atmosphere was, despite a certain grim determination — the frustrated feelings that something had to be done about the war, that we had to act, not simply stand by — like a street fair.

A few days later, I was given a tour of Fayerweather and Avery, two of the occupied buildings, and I saw the dishabille of sleeping bags and blankets, bookbags, and portable typewriters. It looked like a pajama party, it looked jolly, with the exception of interminable meetings at which everyone who wanted to speak could. Direct democracy notwithstanding, I already had been tipped off that the Students for a Democratic Society (SDS) leaders would manipulate the outcome by holding off votes

until early morning, when they could be assured a majority. Still, I was impressed with the practical arrangements being made for daily operations, food delivery, and chores. It did not occur to me to join the occupying students, especially with my apartment's warm bed close by. It was enough just to have seen the sleep-ins to feel part of history in the making.

Much was made later of the cavalier way the students mistreated university property, smoking the president's cigars and turning hallowed classrooms into messy dorm pads. Certainly, some hostility was being expressed toward this institution of higher learning; but the occupations also may have signified an affection for the university, or a longing to know it with greater intimacy, by snoozing on its floorboards. I understood this ambivalence, having, on the one hand, fallen in love with Columbia, ever grateful for the fine education it had given me, and on the other hand, put off by its chilly impersonality and clubby exclusions. Despite my high grades, I had been passed over for various fellowships abroad because, as a friendly faculty member clued me in, some professors had disapproved of my less than deferential attitude and found me to be not one of their own. In retrospect, I see they were right: they perceived I wasn't cut out to be a scholar-academic moving compliantly through the ranks. But at the time, I felt unjustly spurned and resentful enough to share the student activists' animus.

Those tensions had been brewing for some time. In the early sixties, I had been largely apolitical, as was the campus, but when the administration censored the literary magazine, *Columbia Review*, I enthusiastically joined the protest. The college was still all-male, and the hottest political issue at the time was whether women should be allowed to visit the dorms. (I was all for it.) The paternalistic, *in loco parentis* attitude on the part of the university administration rankled deeply. The fact that then-president of Columbia Grayson Kirk '53HON was known to be resistant to women faculty only intensified our opposition to this patriarchal authority figure. You could never admit aloud that the students' rebellion was



Demonstrating on campus, April 1968.

partly oedipal, but you could think it. And so what if it was? I was too young then to put in a word on behalf of fathers.

I don't recall how I received notice that some graduates were forming an organization in support of the student protests, but I went to the first meeting. Out of it came Alumni for a New Columbia (ALFONECO). We fancied ourselves the progressive, pro-youth alternative to the official, conservative alumni association, which supported President Kirk and the anti-protest students to the hilt. As with many New Left organizations, our members ran the gamut from mildly liberal to revolutionary, a confusion that would have to be sorted out later. For the moment, we were united by goodwill toward the strikers and a desire to support them. My own political position at the time might be best defined as social democratic, more in sympathy with Sweden's social-welfare state than Maoist China, but I felt guilty about my wishy-washy politics and was open to persuasion by the more militant stance of

the SDS radicals who were spearheading the unrest, should historical events move in a more extreme direction.

Tom Hayden, who had helped found SDS in 1962, remembered the chairman of Columbia SDS, Mark Rudd, as "absolutely committed to an impossible yet galvanizing dream: that of transforming the entire student movement, through this particular student revolt, into a successful effort to bring down the system." It's hard to credit now the gullible belief that such an overthrow of the government and the whole capitalist system was even in the offing. I remember going during this time to a reading at St. Mark's Church, and the poet Anne Waldman whispering in my ear: the word on the street is that it's going down this summer. "It" being the revolution. I very much doubted that but was intrigued that there even existed rumors about the possibility. One day during the strike, I was on an uptown bus going past Columbia toward Harlem and saw sidewalk demonstrators yelling up to



the passengers, “Join us! Join us!” From the baffled looks on the faces of my fellow riders, mostly Black, I could tell they had not the slightest idea what they were being asked to join. Ten blocks away from campus and, moreover, throughout the city, the disturbances had caused not a ripple. Yet in my progressive circle, the sentiment was growing that one should “organize,” or at least enlist in a like-minded crew to prepare for a general strike or some sort of insurrection that might break out. And so I joined ALFONECO.

About fifty of us were at that first meeting, mostly in our twenties and early thirties: psychotherapists, medical students, and writers, as well as a smattering of older people, lawyers whose children were among the protesters, and ex-Communist (maybe not “ex”) organizers from the Maritime Union who had come out of the woodwork. Michael Nolan '63CC, a documentary filmmaker for public television, chaired the meeting. I sat in the back, raising various objections, as I would in subsequent meetings. It is a truth universally acknowledged that whoever speaks up and challenges a group with irritating

questions eventually will be asked to lead it. That is how I became in short order the president of ALFONECO.

By that time, the students had been evacuated from the buildings by the police, who forcibly dragged them out and pummeled them and many bystanders bloody with nightsticks. I was not a witness to this shameful event, but it became the dividing line in the protests, a scandal that the Kirk administration would never live down and which solidified sympathy for the student radicals (within hours a university-wide strike was called). During the bust, several hundred protesters had been arrested, and ALFONECO quickly got to work, its lawyers filing *amici curiae* briefs in court and its polemicists (the group was

rich in writers) turning out statements for the press about how “shocked and appalled” we were at the university administration’s latest clumsy maneuvers.

President Kirk and Provost-Vice President David Truman both seemed to possess tin ears, granting us much insensitive fodder to work with. We were hoping local newspapers would at least include a line or two from these “shocked and appalled” press releases, in the interest of balanced coverage. We also hoped the stream of press statements would disguise how small we were: I doubt if our membership ever exceeded two hundred on the mailing list. We engaged in public debate with the official alumni organization, men in business suits who deplored what they saw as longhair anarchists spoiling the college experience for more serious students. I went on the Barry Gray radio show and argued with someone from the official alumni group. By this time, I had all the talking points down pat: the university was engaging in military research, ripping off the Harlem community, and so on. It was easy to stay outraged after the police bust. But looking back, I wonder how much I actually accepted the logic of the strike demands.

For instance, one of the chief demands was that the university sever its ties with the Institute for Defense Analyses (IDA). Although Columbia initially had been an institutional sponsor of IDA, the university had no outstanding contracts to do military research at the time of the Columbia protests. Some individual faculty members did have dealings with the government, but the traffic was minimal: IDA served more as a conveniently symbolic focus for student outrage against the Vietnam War than an actual player on campus. Of course, in a larger sense, the university was thoroughly integrated into the “military-industrial complex,” as Columbia’s former president, Dwight D. Eisenhower, had termed it: how could it not be? SDS researchers were busy charting the overlapping elite who sat on the boards of banks, corporations, newspapers, government agencies, and universities. Was this a genuine conspiracy or the logical outgrowth of a corporate society? Even at the time,



Mark Rudd

I was not shocked at the information in these charts. But I had a role to play, knew my lines, and relished the spotlight.

As for the gymnasium that Columbia had wanted to build in nearby Morningside Park, in retrospect it might not have been such a bad thing; the park was a shabby, neglected amenity that could have used some traffic. The bulk of the building would have been allocated to the university, while a smaller section with a separate entrance, occupying some minuscule percentage of square footage, would have served the community. That the entrance to this proposed community facility was located below, in the park, had unfortunate connotations of a tradesmen's or servants' entrance, which the protesters fastened upon, although the reason for that arrangement had more to do with topography than racial prejudice. The Harlem community leaders, originally in support of the gym, had grown mistrustful, rightfully suspicious of a Columbia land grab. The university has had a long history as an acquisitive neighbor. Still, the upside was that the community would have gotten much-needed recreational facilities, including a swimming pool. But its elected officials, State Senator Basil Paterson and Assemblyman Charles Rangel '87HON, had both come out against the gym construction, while firebrand H. Rap Brown had said if it were built it should be torched to the ground. In essence, the strikers' demand to stop the gym's construction was largely symbolic, a way for SDS to link the antiwar protest to civil rights and to defer to the Black students who were occupying Hamilton Hall and who themselves were deferring to the Harlem community.

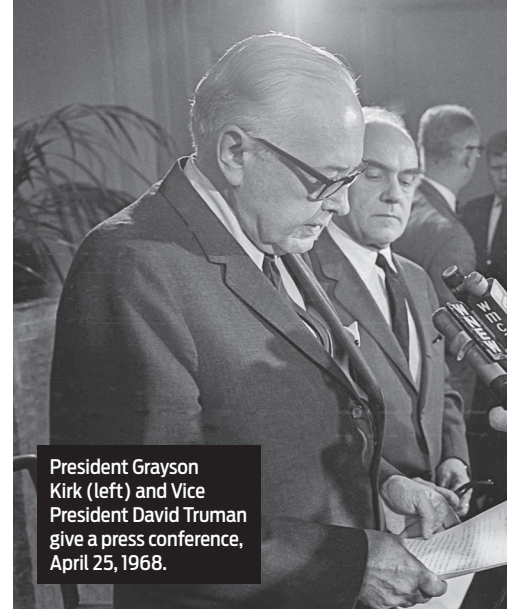
A third demand was amnesty for the six SDS student leaders who had led a march inside Low Memorial Library earlier in the year, in violation of the rule against indoor demonstrations. I had no problem at the time agreeing with this demand, although when I think about it now, I am less certain that self-proclaimed revolutionaries who hope to overthrow the government and in the short term bring their university to a halt should not be prepared to pay the consequences. Under normal circumstances, they might have faced academic

The Columbia student radio station, WKCR, broadcasts from the steps of Earl Hall, overlooking the west side of Low Library, April 1968.



suspension for a term. It seems hypocritical to argue that the university is morally bankrupt on the one hand, and to cling to enrollment in said institution on the other. But perhaps not: in armed rebellions, amnesty often is made a precondition to peaceful settlement. Interestingly, the university administration and the faculty were much more willing to compromise on demands involving external matters, such as the IDA and the gym, but the one demand they resisted strenuously was amnesty: they seemed averse to ceding the right to discipline students who had broken their rules.

As it turned out, Columbia, having spent millions on preliminary planning for the gymnasium in Morningside Park, gave it up, severed its formal connection with IDA, and suspended punishment for almost all student infractions. The criminal cases against the arrested students also were dropped. So in that sense, perhaps the demands were shrewdly conceived as practical and achievable, and their having been met in the end constituted a victory for the strike. Conversely, because they were largely symbolic, their accomplishment changed little of substance. The faculty had taken the demands quite seriously, and tried to negotiate on each item to bring about a peaceful resolution, using their (excessive) faith in the powers of reason to avoid a police bust. The student protest leaders did not, I think, take the demands as seriously. Mark Rudd himself later boasted to a reporter that “we [SDS] manufactured the issues. The Institute for Defense Analyses is nothing at Columbia.



President Grayson Kirk (left) and Vice President David Truman give a press conference, April 25, 1968.

Just three professors . . . And the gym is bull. It doesn't mean anything to anybody.” But whether or not the demands were serious, the SDS dug in, refusing to compromise on them, so as to compel exactly the theatrical, bloody denouement that occurred when police ousted the students. It was this very outcome the professors acting as go-betweens had dreaded: some faculty even volunteered to interpose themselves in front of the buildings if the police moved to clear them. In short, the faculty cared more about protecting the students from physical harm than the students themselves did. Youth believes itself immortal; those who have attained middle age know otherwise.

What puzzles me now is why I gave so little thought to the validity of the demands. I seem to have been closer to

the militants' viewpoint, that it was all a pretext to confront the university as a surrogate for the Establishment, so who cared if the demands were manufactured? The point was to show our opposition to the Vietnam War and racial injustice — and to stick it to Columbia.

In my current thinking, I regard the American university as a soft target. Politically engaged students are in school; hence, they commence their political struggle where they are, using the university administration as a convenient though often misplaced opponent.



I suppose it could be argued from a Marxist perspective that the university indoctrinates false consciousness, or, as Pierre Bourdieu maintains, that higher education reinforces the rigid hierarchical class structure. But colleges, I can't help thinking, are not primarily responsible for the ills of society, and to the extent that they provoke critical thinking, they offer a line of resistance. True, my changed perspective may have something to do with having become a faculty member at Columbia, co-opted by the academic mindset and paycheck that lures me to identify more closely with the institution. William Blake wrote, "The tigers of wrath are wiser than the horses of instruction." I wonder whether I understood this Blakean adage in 1968, and now that I've become one of

the faculty nags or ponies, have forgotten it. But no, I don't believe that righteous wrath necessarily trumps every other kind of moral authority.

The corollary to "the personal is political" is that one's involvements in politics may have a private as well as a public motive. In my case, I seem to have been trying to enact a youth that was fast escaping my grasp. What I did not realize was that it was not only five or so years that separated me from the student rebels. During that historical juncture there had been a sea change: thanks in part to the demographic bulge denoted by the term "baby boom" and in part to the marketing of youth culture, the students felt themselves part of a separate tribe, their age group serving as sufficient identity, one radically different from grownups. By contrast, I and those on my side of the divide had prematurely yearned to be adult; it was too late for us to learn the siren song of youth. I could not dismiss so easily my elders' hesitations as "bullshit": if anything, I felt a twinge of pity for and identification with those professors shuttling between the benighted university administration and the recalcitrant students.

The legacy of the '68 strike was both positive and negative. Václav Havel said that the Columbia student actions emboldened the Czech rebels and inspired dissidents around the world. In France, the May uprising, *les événements de mai*, took the protest baton and ran it much further, even bringing down the de Gaulle government. It made us giddy to think we were part of a worldwide movement. At Columbia, Grayson Kirk was replaced by ex–United Nations diplomat Andrew Cordier '69HON. Modest steps began to be taken to increase the diversity and gender balance of the student body, the faculty, and the board of trustees.

On the negative side, another SDS leader, Ted Gold — whom I had heard deliver a humorous, self-deprecating speech at a street-corner rally: the rebel as nebbish — was blown up on March 6, 1970, by a homemade bomb in the West 11th Street townhouse. That such a sweet, gentle guy's life should end so violently testified to

the runaway-train logic of revolutionary militancy. David Gilbert '66CC, another SDS organizer, was involved in an armed robbery of a Brink's truck during which two policemen and a security guard were killed. Mark Rudd joined Weatherman, which vowed to overthrow the government by violent or other means; he participated in the "Days of Rage" in Chicago; and then he went underground, working at odd jobs. When he came out of hiding decades later, he, practically alone of the Weather Underground veterans, confessed to regrets for making mistakes. He was particularly ashamed of having given the OK to JJ (John Jacobs) during the second occupation of Hamilton Hall to burn manuscripts belonging to Professor Orest Ranum. Had I known of this at the time I would have been horrified.

Most movement stalwarts never second-guessed their more questionable acts. In a 2015 *New York Times* follow-up article about the "kidnapping" of an NYU computer in 1970 — a computer, by the way, that had nothing to do with military uses — one of the perpetrators, Nicholas Unger, was tracked down and interviewed. "What do I say about being part of a generation of protests?" Mr. Unger said . . . "The war was wrong, and people who tried to stop it were doing the right thing." It must be good to have such a Manichaean conscience. Still, one must remember that whatever was done, valid or preposterous, emerged out of the frustrated feeling that you had to do something about the war — you just had to act, not simply stand by. And in fact, the cumulative effect of all that protest activity was to help bring an end to the Vietnam War. The feminist activist Ann Snitow has written wisely: "No activism is possible without naiveté, some faith in action in spite of rational assessments of what can actually be done. And, also, no activism without some grandiosity, some earnest belief in the value of making an unseemly display." I should keep reminding myself of that, as I think back with bemusement to the unseemly if lively posturing, naiveté, and grandiose play-acting in which I and my confederates indulged during that time a half century ago. 🍷

Farsighted Forecasts

Lisa Goddard directs Columbia's International Research Institute for Climate and Society (IRI), which helps developing countries anticipate and manage the impacts of climate change. We asked her to explain how climate scientists can predict weather patterns months in advance, and how their work is improving people's lives. **By David J. Craig**



Columbia Magazine: IRI is at the forefront of a field called climate services. Can you explain what scientists in your field do?

Lisa Goddard: We collaborate with farmers, public-health officials, water managers, and others to understand how climate conditions affect their work. We then help them make better decisions, based on predictions of what climate conditions will likely occur from a few weeks to several years in the future.

What types of decisions do you help people with?

Well, if farmers know there's a good chance of a drought occurring in the next growing season, they might plant

crops that don't require a lot of rain, even if those crops are less profitable than ones they'd ideally like to plant. Or if health officials in the tropics know that the next rainy season is likely to be wetter than usual, they might make a bigger investment in malaria-prevention measures, like bed nets. It's all about helping people use their resources wisely and in a timely manner.

How can you predict the weather so far in advance?

Unlike TV meteorologists, we don't attempt to say what the weather is going to look like on any specific day. Rather, we offer forecasts that describe the range of total rainfall and average



temperatures that a region is likely to experience in a given season. So whereas meteorologists track the movements of particular pressure systems, we study phenomena that may cause a region's climate to differ from previous years. One of the key factors we consider is the temperature of the oceans. The warmth of water near the ocean's surface has an enormous impact on climate, because it affects the temperature and humidity of the air above it. And since ocean currents change slowly, they are predictable weeks to months in advance. This enables us to anticipate their effects



Farmers in El Paraíso, Honduras, are benefiting from climate forecasts produced by Columbia scientists.

on the atmosphere. The most important example of a predictable climate phenomenon is El Niño, which occurs when waters in the eastern and central equatorial Pacific Ocean become uncharacteristically warm every few years. El Niño robustly influences weather conditions over nearly 30 percent of all land on Earth, all the way from the western coasts of North and South America to the Horn of Africa and India.

Didn't Columbia researchers play a key role in discovering El Niño's global effects?

Yes, Mark Cane, a Columbia climate scientist, was the first one to predict changes in El Niño's sea-surface temperatures, using a forecasting model that he and Steve Zebiak, his student at the time, created in the mid-1980s.

You could say that their work essentially gave birth to the field of climate prediction, which led to the new endeavor of climate services. While there are many ocean phenomena that influence our planet's climate, El Niño is the most powerful in influencing annual variations. Over the years, we've gotten better and better at predicting El Niño and its effects.

When was IRI founded?

The US government, through its National Oceanic and Atmospheric Administration, awarded Columbia a major grant to create IRI in the mid-1990s, with the aim of sharing our knowledge of seasonal climate variability and forecasting with the rest of the world. Mark and Steve's presence here was a huge factor, as was the fact that Columbia is home to many other top climate scientists. We now have a staff of nearly fifty researchers, and we are the world's preeminent research group dedicated to creating seasonal forecasts and translating our results into actionable information.

Where do your scientists work?

We have ongoing collaborations in dozens of countries. In some, we're working with government ministries to develop their forecasting systems from scratch. In others, we're working behind the scenes, providing technical support to local scientists who are seeking to improve their forecasting systems. A big part of what we do is sharing our forecasting technology and decision-making methods with other scientific groups.

We also work with aid organizations. The International Federation of Red Cross and Red Crescent Societies, for instance, uses our forecasts to anticipate what parts of the world are most likely to be hit by floods, droughts, and other types of severe weather several months in advance. This enables them to mobilize relief workers ahead of time and respond to emergencies faster and more cost-effectively.

So you are predicting specific weather events.

Not exactly. Not in the sense of saying, "A hurricane is going to hit Jamaica six weeks from now." But sometimes, in addition to projecting the total rainfall that a region may receive in a given season, we can also predict whether that rain will fall nice and evenly over the course of the season or arrive in a few big bursts. In some cases, we may also be able to say something about the frequency of intense heat waves. This can be just as helpful to know. It can tell farmers the risk that

certain types of crops may get washed away or dried out, and if aid agencies should be prepared for the possibility that thousands of people may get displaced by floods or droughts.

One of the places you've done extensive work is Uruguay.

Yes, our scientists have collaborated with the Uruguayan government to build a forecasting system for farmers that is the most advanced of its kind. Today, a farmer in Uruguay can log onto a website that we helped to create and learn what kind of climate conditions are likely to materialize in his specific *county*. A typical forecast might state: your area has a 50 percent chance of receiving less rain than usual, a 30 percent chance of receiving an average amount, and a 20 percent chance of receiving more rain than usual. He can then use the website to find out how much money he's likely to earn by planting various crops — say, corn, wheat, barley, or sorghum — under each of those climate scenarios. He can also find out the potential benefits of fertilizing or irrigating. The tool is individualized, sophisticated, and extremely easy to use.

Uruguayan government officials are also using the forecasts to decide where droughts may necessitate the distribution of emergency assistance.

Despite having an agricultural economy, Uruguay is a fairly prosperous country. Don't you typically work in poorer ones?

Most of our work is focused on helping developing nations. One of the reasons we took on the project in Uruguay is because its agriculture ministry is extremely well run and the country has a vibrant scientific community. This helped us to create a top-notch forecasting system. And our goal was always to create a system that could serve as a sustainable model for other countries.

Developing countries need our help because they're especially vulnerable to climate variability. Nearly 80 percent of the world's farmers still depend primarily on rainfall, rather than irrigation, for watering their crops. That means that if



little rain comes, they're completely out of luck. They might not be able to afford to send their children to school, to pay back a loan they've taken to buy fertilizer, or to feed their family.

The University recently announced that it will work with your team to replicate and expand this effort in several other countries.

Right. This will be part of an initiative called Columbia World Projects, which President Bollinger launched earlier this year to promote academic endeavors that address pressing global problems. We're going to be joining forces with faculty from across the University on this, as well as longtime partners in international organizations. We're still in the process of selecting five to six host countries. But our efforts in each country will aim to accomplish four goals related to agriculture: improving food security, nutrition, and economic livelihoods, and supporting environmental stability.

IRI also has quite a few ongoing projects in Africa, in countries that include Ethiopia, Ghana, Kenya, Mali, Rwanda, Tanzania, and Zambia. What does your work in these countries look like?

Helping farmers is a major focus of our work in Africa, too. In addition to providing farmers with climate forecasts, we've developed a new type of agricultural insurance, called index insurance, that issues payouts to farmers in years when the weather is especially bad. This is different from traditional insurance. Traditional



insurance policies pay people in accordance with the losses that they personally experience. But that kind of insurance is prohibitively expensive to administer in some developing countries. That's because in order to verify losses, insurance adjusters would have to visit every single farm, and they'd be inspecting huge numbers of small farms spread out over vast distances. But if payouts are based on a climate outcome, the administrative costs plummet and insurers are able to sell policies for less. We've conducted studies demonstrating the effectiveness of this approach in several African nations. As a result of our work, millions of farmers on the continent now have access to insurance for the first time.

They're benefiting in some surprising ways. It's not just a matter of covering their losses in bad years. Insurance can also give farmers the security they

FROM TOP: FRANCESCO FONDELLA, JEFFREY SAKS



A meeting of farmers in Bagerhat district, Bangladesh, to discuss climate-adaptation strategies.

“Nearly 80 percent of the world’s farmers still depend primarily on rainfall, rather than irrigation, for watering their crops.”

need to fully capitalize on good weather. We’ve found that poor farmers who are insured are much more likely to respond to *favorable* climate forecasts by taking calculated risks that enable them to get out of debt, and even see profits. This might mean getting small loans to purchase fertilizer, high-yield seeds, or additional livestock. We’ve shown that if farmers capitalize on a few good seasons in this way, they can often lift themselves out of poverty.

Is there a certain level of education people need to use your forecasts?

We find that people of all backgrounds are accustomed to dealing with fairly complex choices in their work and that, with a little training, they’re usually able to make use of the information we provide. Farmers in developing countries have to be pretty savvy in order to survive.

IRI scientists are not typically working directly with individual farmers, though. We often provide training to local agriculture officials or humanitarian-aid

workers who then translate the forecasts to farmers in ways that make sense to them. In this way, we can help the largest number of people.

But even working with these intermediaries, we face challenges. In some of the places where we’ve worked, the local language has no word for the concept of “probability.” Once, in a meeting in Kenya, a colleague of mine communicated the concept to local aid workers using a paper airplane, which he flew repeatedly, marking all the spots where it landed on the floor to represent the range of possible climate outcomes. The locals got it, and their communities have since embraced our forecasts.

Do farmers in the United States rely on seasonal climate forecasts?

Not as much as you might think. The National Weather Service generates some seasonal forecasts, but the agency honestly doesn’t have a lot of traction with American farmers. This is partly

because major agribusinesses here in the US, as well as in other wealthy countries, have such elaborate irrigation systems and insurance subsidies that they’re somewhat insulated from the variability of climate.

Do you see international support for this kind of work gaining momentum?

Oh, absolutely. Global warming is a driving force behind it. Outside the United States, where discussion about climate change has not been warped by politics, there is little debate about whether global warming is real. Everybody sees it’s real. Farmers can see the effects it’s having. They know that they’re experiencing increasing temperatures and thus more severe droughts, and more powerful storms than their parents and grandparents saw. And city dwellers recognize that they’re becoming more vulnerable to floods and water shortages and deadly heat waves. Just in the last few years, we’ve seen more and more countries willing to invest in climate forecasting systems, as the need to adapt to climate change takes on greater urgency.

What are the challenges of your work moving forward?

You’d think that in an age when weather satellites are continuously orbiting the earth we’d have all the data we need to produce climate forecasts for the entire planet, but that’s not the case. The problem is that in order to produce forecasts that are truly useful to people — that is, those that indicate how an upcoming season’s climate may compare to what people in the region are accustomed to — you also need *historical* climate data. This typically consists of many years of rain-gauge and temperature-sensor readings that have been digitized and uploaded into global databases. But in some developing countries, this data is incomplete or hasn’t been digitized yet. One of our big initiatives now is to work with African countries to fill in the gaps in their historical records so that we can generate better forecasts for them. In the future, we hope to provide the entire continent with

monitoring and forecasts as detailed as those now available in Uruguay. 🌍

To learn more, visit www.giving.columbia.edu/iri

EXPLORATIONS

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Alaska at risk for massive tsunami, study finds

Scientists probing the sea floor off the southern coast of Alaska have found geological features that indicate the region is at greater risk of

after surveying parts of the Aleutian subduction zone, a nearly two-thousand-mile-long fault that extends from Russia's Kamchatka Peninsula all the way to the Gulf of Alaska. Using 3D-imaging equipment aboard the *Marcus G. Langseth*, a research vessel that Columbia operates on behalf of the National Science Foundation, the scientists created cross-section images of two tectonic plates that are ramming into each other. They discovered that a large section of one plate has broken off its main slab; the scientists say this section, which is roughly the size of Delaware, could be propelled violently upward during an earthquake and generate an enormous tsunami.

"A strong earthquake in the area could shake it loose and cause seventy-five-foot waves to head both north and south," says Bécél, whose findings appear in the journal *Nature Geoscience*. "This could devastate parts of the Alaska Peninsula, which is just sixty miles to the north. It could also affect areas as far away as the western coast of the US and Hawaii, although the wave wouldn't be nearly so large by the time it traveled that far."

Bécél says that it is impossible to predict if and when the dislodged plate might move. She points out that while the Aleutian subduction zone is one of the world's most active fault lines, the plate fragment is located in an area where only minor earthquakes have been recorded. This could mean one of two things: either the area truly is benign or else the colliding plates have been building up pressure for ages and are therefore due for a big quake.

"It's impossible to tell for sure," she says. "But we've detected tiny movements that tell us that at least some pressure is building."

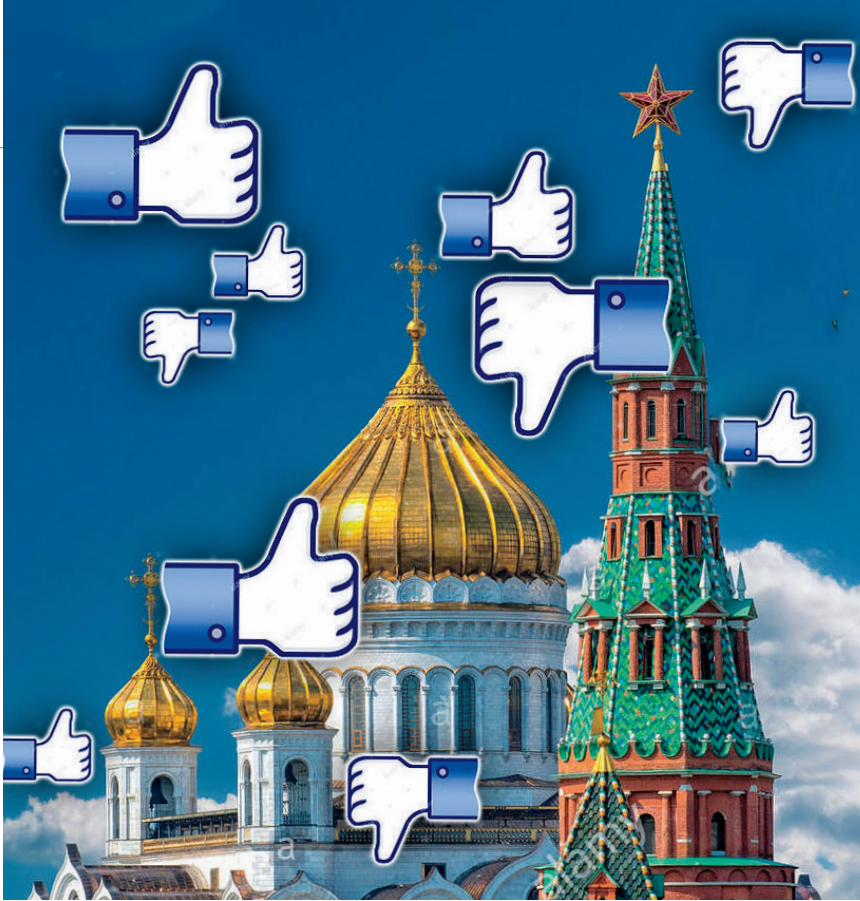
Bécél says that her study has broader implications for understanding the threat of tsunamis around the world. Until recently, she says, scientists did not have access to 3D-imaging technology and thought that the type of rock formation her team found — what geologists call a "splay" fault — was extremely rare. But the splay fault she and her colleagues discovered is the second one found in the northern Pacific in just the last few years. The first has already slipped: it caused the 130-foot-high tsunami that hit Tohoku, Japan, in 2011, killing more than fifteen thousand people and destroying the Fukushima nuclear-power plant.



The discovery was made near the western end of the Alaska Peninsula.

being hit by a tsunami than previously recognized. The researchers, led by Columbia seismologist Anne Bécél, say that a tectonic plate on a fault line there is positioned in such a way that, in the event of an earthquake, it could jump several meters and push a tremendous amount of water toward the shore.

Bécél and her colleagues came to this conclusion



Socializing with the Kremlin

Public scrutiny of Facebook's role in the 2016 presidential election intensified this past fall when the company acknowledged that political ads bought by Russian agents were viewed by ten million people. Many members of Congress responded by demanding that Facebook be subject to the same FCC rules that ensure that traditional media clearly identify sponsors of political advertising.

But a recent study by Jonathan Albright, research director of the Columbia Journalism School's Tow Center for Digital Journalism, suggests that US lawmakers could face an uphill battle in combating foreign powers' online propaganda campaigns. Indeed, his study reveals that the campaigns are masterfully exploiting the community-building power of social media.

Albright conducted an in-depth investigation of the online propaganda campaigns in early October. Journalists had by that time uncovered the names of six inauthentic, Russian-controlled Facebook accounts — Being Patriotic, Heart of Texas, Secured

Borders, United Muslims of America, Blackivist, and LGBT United — that the company had shut down over the summer. Despite the accounts having been deleted, Albright was able to unearth their content using a social-media analytics tool called CrowdTangle. Specifically, he analyzed the last five hundred posts that had appeared on each of the six pages. He discovered that their reach had been extraordinary, with Facebook users having “liked” or commented on the posts nineteen million times and shared them 340 million times.

Albright also revealed that few of the Russians' posts before the 2016 presidential election explicitly addressed voting for Donald Trump or Hillary Clinton. Rather, the posts tended to contain inflammatory political statements whose ultimate goal seemed to be sowing division in American society and dampening people's enthusiasm for voting altogether.

Albright has referred to the campaigns as “cultural hacking.” Russian agents, he notes, “are using systems that were set up by these platforms to increase engagement. They're feeding outrage — and it's easy to do.”

Data reveals X factor in pop hits

What makes the perfect pop song, one that will rocket to the top of the *Billboard* charts?

According to Michael Mauskapf of Columbia Business School and Noah Askin of the INSEAD business school in France, data analysis provides some answers. The researchers, who recently examined the acoustic qualities of the nearly twenty-seven thousand songs that appeared on the *Billboard* charts between 1958 and 2016, found that



Adele

the most popular tunes sound different — but not *too* different.

“Really successful tunes strike a delicate balance between innovation and familiarity and stand out from the competition without alienating listeners,” says

EXPLORATIONS

Mauskapf, a Columbia assistant professor of business. “This drives an evolution of the art form.”

The authors cite Adele’s “Set Fire to the Rain,” Justin Bieber’s “Sorry,” and Rihanna’s “Diamonds” as songs that have topped the charts in recent years because they were “optimally different” from the competition.

Mauskapf and Askin’s paper is based on their analysis of data from the music-streaming service Spotify, which characterizes songs by key, tempo, mode, and time signature, as well as by novel measures like “danceability,” “liveness,” “acousticness,” “instrumentalness,” “speechiness,” and emotional positivity. While Spotify scrutinizes this data to understand its subscribers’ listening habits, Mauskapf and Askin used it to determine the degree to which individual songs are representative of their time periods.

The researchers say that further analysis of the data could reveal more nuanced details about the way pop-music trends emerge, shift, and fade over time — information that could be of interest to musicologists and cultural historians, as well as artists.

“One of the lessons of our study is that no matter how hard record companies try to manufacture hits, they’re never going to be able to do so merely by churning out what’s been popular in the past,” says Mauskapf, whose study appears in the *American Sociological Review*. “Audiences always demand freshness.”

Cartographers to the rescue

After Hurricane Maria slammed into Puerto Rico in September, international aid agencies were confronted with an unexpected challenge: no up-to-date maps were available for some parts of the island, so relief workers had trouble locating people who needed help.

Soon a call went out to cartographers around the world, asking them to improvise a solution.

At Columbia, about sixty faculty, students, and local residents responded, gathering in Butler Library on September 29 for what

they noted where every dwelling was located within a roughly 150-square-mile patch of land outside Ceiba, a town on the northeastern coast of the island. They then transferred the information to OpenStreetMap, an open-source platform that invites people to map remote parts of the world.

“Many regions have never been digitally mapped, in part because Internet companies like Google and Nokia don’t have the financial incentive to do so,” says Juan Francisco Saldarriaga ’12GSAPP, an adjunct assistant professor of urban planning and architecture and one of the event’s organizers.

Those who attended the Columbia event succeeded in mapping the area around Ceiba within three hours;

their efforts were complemented by those of volunteers at dozens of other US universities, who mapped additional sections of Puerto Rico over the next few days.

Co-organizer Alex Gil, who is the digital-scholarship coordinator at Columbia University Libraries, says that he is working with researchers at other institutions to establish a streamlined process for similar crowdsourcing efforts in the future.

“There’s no doubt this made a difference in Puerto Rico,” he says. “Red Cross officials distributed printouts of the maps that we helped create to their workers in the field. That was very satisfying.”



At left, history professor Manan Ahmed helps a participant in Columbia’s “mapathon.” Below, a student examines satellite imagery of Puerto Rico.



they called a “mapathon.” The participants, who included both mapping experts and novices, sat in small circles, with their laptops open to satellite photographs of Puerto Rico. Zooming in on the images,

Flying the eco-friendly skies

A team of Columbia undergraduates recently took first place in NASA's Aeronautics University Design Challenge, an annual design contest that calls on college students to come up with ideas for environmentally responsible airplanes. The Columbia team, led by engineering students Elon Gordon and Leon Kim, submitted plans for a two-hundred-seat commercial airliner whose distinct structure — a saucer-like body with a row of jet engines mounted on its tail — would make it extremely energy-efficient.

Called the Gryphon, the plane would be nearly the size of a Boeing 747 but much more aerodynamic. Partly as a result, it would consume 50 to 60 percent less fuel and emit far less exhaust.

The students' design calls for the aircraft to be built from a number of new, ultra-lightweight synthetic materials and to be powered by engines that incorporate superconducting generators and a novel



An artist's rendering of the award-winning design.

fuel-injection system. These investments, they say, would pay for themselves in improved fuel efficiency.

The twelve-person Columbia team, whose members are a part of the engineering school's Columbia Space Initiative, formally presented their design at an engineering symposium that NASA hosted at its Langley Research Center in Virginia on September 26.

"We're hopeful that in the coming years people in the aviation industry will draw on our proposal for inspiration about what is possible," says Kim. "Building greener airplanes will have a tremendous impact on the health of our planet."

A skin patch that dissolves love handles



The patch contains microscopic needles that release fat-busting drugs beneath the skin.

drugs that boost metabolism and turn the body into a fat-burning machine. The scientists recently tested the patch on mice and showed that it reduced body fat in treated areas by about 20 percent. They expect to begin human trials in two to three years.

"The patch would be painless to wear, because its needles are so tiny," says Li Qiang, an assistant professor of pathology and cell biology who leads the Columbia research team. "You'd wear it for a few hours, with the needles releasing a steady stream of drugs beneath the skin."

The drugs delivered by the patch were developed years ago. But until now, scientists had no way of safely administering

them. The medications work by inducing white fat cells, which store energy in the form of triglycerides, to convert themselves into brown fat cells, which periodically burn off to help maintain the body's core temperature.

"Brown fat cells are not typically found in adult humans, but rather in infants and in mammals that hibernate," says Qiang. "The drugs released by our patch trick white fat cells into thinking not only that they are brown fat cells, but also that the body is cold and needs extra heat."

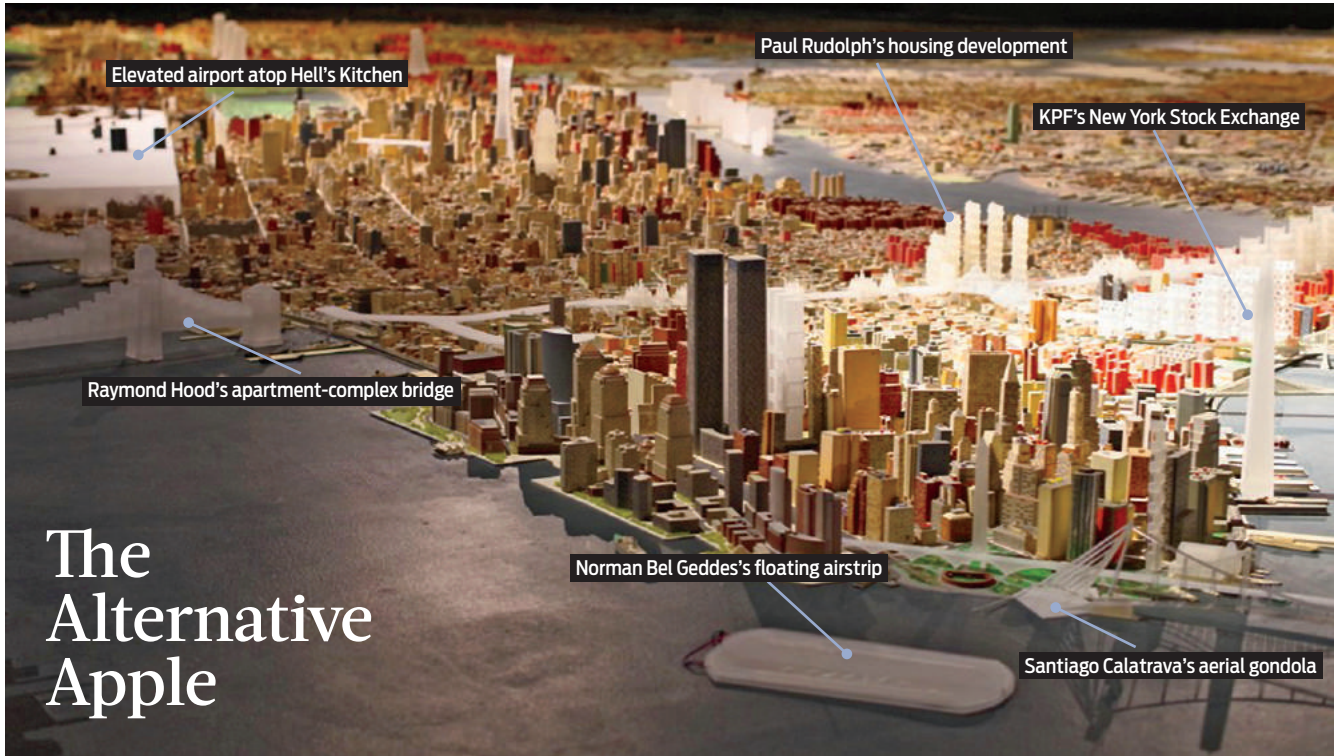
The researchers are currently studying which drugs work best.

"Many people will no doubt be excited to learn that we may be able to offer a noninvasive alternative to liposuction for reducing love handles," says Qiang. "What's much more important is that our patch may provide a safe and effective means of treating obesity and related metabolic disorders such as diabetes."

It sounds too good to be true: a medicated skin patch that dissolves unwanted body fat.

But it's no scam.

Developed by scientists at Columbia University Medical Center and the University of North Carolina, the patch contains microscopic needles that release



The Alternative Apple

Only the architects were in charge.

New York City might have apartment buildings atop its suspension bridges, a floating airstrip in its harbor, an opera house shaped like a slipper, and an ultramodern residential enclave on Ellis Island with moving sidewalks for public transportation.

These are just a few of the offbeat and ultimately unrealized ideas that prominent architects have proposed for New York City over the past century. Now their visions have been brought to life in miniature by a team of students at Columbia's Graduate School of Architecture, Planning, and Preservation. The students recently made models of fifty-six such projects and inserted them into the Panorama of the City of New York, a room-sized, 1:1,200 scale replica of the



Building a model from Plexiglas.



Paul Rudolph's residential complex.

five boroughs at the Queens Museum. The students' temporary makeover of the Panorama, which was originally built for the 1964 New York World's Fair and was last updated in 1992, is part of the museum's new *Never Built New York* exhibition, which is on display through February 18.

The Columbia students were hired to create the models by exhibition curators Sam Lubell and Greg Goldin, who based *Never Built New York* on their 2016 book of the

same name. Whereas Lubell and Goldin's book presents artwork depicting 125 neglected designs by the likes of Frank Lloyd Wright, Buckminster Fuller, I. M. Pei, and GSAPP's own Steven Holl, the students' task was to show how the most ambitious of the passed-over proposals could have reshaped the city as a whole.

In some cases, the students conducted considerable research before creating their models. For example, because John Johansen's

1966 plan for "Leapfrog City" — a network of elevated roads, buildings, and plazas that would have straddled East Harlem — is documented only by the late architect's rough sketches, the students consulted with his son, Christian, who is also an architect, to determine how best to represent it.

"He was intimately aware of his father's vision and actually came to Columbia to work through the details with us," says Adam Paul Susaneck, an architecture

graduate student who worked on the project. “We felt a deep responsibility to get this right, since our model would be the only three-dimensional representation of his plan in existence.”

For other projects, like Pei’s 1956 proposal to erect

have done that, but it ultimately proved impractical, since we had ten weeks to complete dozens of models.”

The students produced all their models in GSAPP’s Fabrication Lab, using a 3D printer for the most intricate structures and sculpting



Installing Robert Moses’s Lower Manhattan Expressway.



I. M. Pei’s Hyperboloid tower.

an hourglass-shaped tower atop Grand Central Terminal, called the Hyperboloid, blueprints were available.

“The challenge there was deciding how much detail to include,” says Travis Tabak, another graduate student of architecture. “Do you articulate every single truss that would have been visible in its delicate façade? We could

others out of Plexiglas with laser-guided cutting tools.

Joshua Jordan, an adjunct assistant professor of architecture who oversaw their work, says the final display is provocative for depicting would-be marvels (Santiago Calatrava’s 2006 proposal to connect Manhattan and Governors Island via an aerial gondola) alongside visions of pure lunacy (a 1946 plan to cover Hell’s Kitchen with an elevated airstrip).

And then there are the proposals that fall somewhere in between. Pei’s hourglass tower is considered by many architectural critics a lost gem — yet its construction would have destroyed Grand Central Terminal as we know it.

“How do you reconcile these twin impulses, to create and to preserve?” says Jordan. “This is the question that city planners and architects wrestle with every day.”

STUDY HALL
RESEARCH BRIEFS

Walk it off People with desk jobs can significantly increase their life expectancy by getting up and walking around at least once every half hour, according to a new study by Keith Diaz, a Columbia assistant professor of behavioral medicine.

ALS breakthrough A team of researchers led by Columbia biochemist Tom Maniatis has found that one of the body’s natural defenses against the neurodegenerative disorder ALS can exacerbate the condition in its later stages. The scientists say that further study of the defense mechanism, which involves the disposal of old and worn-out components of brain cells, could lead to new therapies.

Beetles on the move Forest-munching pine beetles native to the southern United States have been moving northward as a result of rising temperatures, say Columbia climate scientists Corey Lesk and Radley Horton ’07GSAS. They warn that the beetles could destroy huge tracts of woodland across the northern US and Canada over the next few decades.

Digital dividend The introduction of high-speed Internet to many African cities over the past decade has boosted employment by as much as 10 percent and reduced income inequality, finds a new study by Jonas Hjort, an economist at Columbia Business School.

Depression on the rise Rates of depression are surging in the United States, according to research by Renee Goodwin, an epidemiologist at Columbia’s Mailman School of Public Health. Goodwin’s team analyzed mental-health surveys of more than 600,000 people and found that from 2005 to 2015 depression rose significantly among Americans age twelve and older, with the most rapid increases seen in young people.

For richer or poorer New research by Columbia economists Pierre-André Chiappori and Bernard Salanié, and Yoram Weiss of Tel Aviv University, shows that over the past fifty years Americans have become more likely to marry someone from their own economic class — a trend that the authors say is exacerbating income inequality.

Suspect behavior Columbia statistics PhD student Jonathan Auerbach says that he has found evidence that suggests New York City police supervisors may be holding their officers to ticket quotas, despite the practice being illegal. In analyzing all traffic tickets issued by NYPD officers between 2013 and 2015, he discovered that the number of tickets issued daily increases steadily over the course of each month, with 25 percent more tickets issued on the last day than on the first.

— Julia Joy

NETWORK

YOUR ALUMNI CONNECTION

State of the Art

The Whitney Museum's elevator doors open onto a film projected on a black wall. Grainy figures march in what looks like a Vietnam War protest. But the 8 mm footage isn't as old as it looks. In fact, it was shot by artist Josephine Meckseper in 2004 at a

demonstration against the Iraq War. This tangible reminder of art's continued role in responding to conflict introduces visitors to *An Incomplete History of Protest: Selections from the Whitney's Collection, 1940–2017*, an exhibition co-curated by Rujeko Hockley '05CC that will run until spring 2018.

Throughout the show, a variety of media — film, photography, poster, painting, drawing, sculpture, installation, and text — capture a wide range of protest movements and perspectives. Such breadth in one exhibit reflects Hockley's philosophy as a curator. "I'm interested in expanding the types of work we see in institutions," she explains. "At the Whitney that means thinking in the most expansive way possible about what it means to be an American artist."

Hockley arrived at the Whitney as an assistant curator in March 2017 and brought with her a complex sense of American identity. Born in Zimbabwe to a Zimbabwean mother and an English father, she moved to the United States at age two and grew up in Washington, DC, and New York City. "I'm kind of a hodgepodge of things," she says.

Hockley's career took root at Columbia, where, as an art-history major, she studied the ways in which American art has historically represented a relatively narrow spectrum of American people. After graduation, she landed a job as a curatorial assistant at the Studio Museum in Harlem and worked there for two years before moving to Laos to teach English, and then to California to start a PhD program at UC San Diego. In 2012, she joined the staff of the Brooklyn Museum, where she co-organized powerful exhibitions including this year's *We Wanted a Revolution: Black Radical Women, 1965–85*, which, Hockley says, "really homed in on the



Rujeko Hockley



Above: *Representatives of State*, by Toyin Ojih Odutola. At right: *An Incomplete History of Protest* at the Whitney.

LEFT: JODY ROGAC; RIGHT: COURTESY OF THE ARTIST AND JACK SHAINMAN GALLERY, NEW YORK; BOTTOM: RON AMSTUTZ

relationship between Black women artists and second-wave feminism.”

Her latest project at the Whitney, titled *Toyin Ojih Odutola: To Wander Determined*, features drawings by a Nigerian-American artist who explores themes of identity and narrative through richly textured portraits of fictional characters. Like Hockley, Odutola is in her early thirties, and, like Hockley, she was born in Africa but grew up in the United States. “Odutola’s also interested in exploring who’s an American and what we talk about when we talk about American art,” Hockley says.

Odutola’s drawings, on view until February 25, aren’t just beautiful; they invite viewers to think about representations of race, class, and nationality. Hockley explains: “Society has a tendency to flatten the experiences of people of color into a kind of monolith — into a singular ‘Black experience,’ for example — and Odutola pushes audiences to think about the specificities and nuances of individual lives.”

As a curator, Hockley says she is motivated to showcase work that reflects an ever-complex, ever-diverse America. “We’re doing ourselves a disservice if we don’t embrace the full range of human experience,” she says. “Of course, that’s a hard thing to do, and we struggle with it as a nation. But I see great art all the time, and I see people who are really engaged with their current moment and surroundings. And to me, that’s all good.”

— Julia Joy



From Light Blue to Green

Josh Martin ’14CC majored in anthropology, where he tackled the study of human societies. Now he’s busy tackling Patriots, Saints, and Buccaneers. Martin, an outside linebacker and special-teams handyman for the New York Jets, is the only Columbia graduate currently playing in the NFL. After a standout career with the Columbia Lions, Martin signed with the Kansas City Chiefs in 2013 as an undrafted free agent. He joined the Jets in 2015, and in 2017 he signed a two-year, \$4.3 million contract.

New Business in an Ancient Land

The young entrepreneur stood in front of the panel of judges, fiddled nervously with a PowerPoint presentation, and prepared to pitch his idea: a virtual-reality game that would help refugees learn their new local language.

The scene, which took place in a gleaming, glass-walled new co-working space, could have been lifted from any venture competition in Silicon Valley. But there was a twist: the entrepreneur was himself a refugee. And he was pitching not in California, but in Erbil, Iraq, at a summer boot camp organized by Five One Labs, the first startup incu-

bator for conflict-affected populations in the Middle East.

“There are over a million Iraqi IDPs (internally displaced persons) in Kurdistan, and 250,000 Syrian refugees. So there’s definitely need,” says cofounder and executive director Alice Bosley ’17SIPA. “Entrepreneurship training helps address some of the most pressing problems in the community, particularly employment and education.”

In addition to weekend boot camps in the spring and summer, the organization’s main program is a three-month-long incubator offered in the fall. Participants receive free office space, training in areas like financial

NETWORK

planning and marketing, mentorship from experienced entrepreneurs in the Middle East and the US, and a chance to compete for \$15,000 in seed money.

Some businesses in the incubator's inaugural cohort, like the one making the virtual-reality language game, focus specifically on needs that people see in the refugee community. Others, like an online pharmacy service, are already common in Western nations but new to Iraq. And still others are, as Bosley puts it, universal needs.

"We have three young men who want to build a french-fry business," she says. "And it makes sense. Iraq actually has an abundance of potatoes."

Bosley came up with the idea for Five One Labs with classmate Patricia Letayf '17SIPA. Both women have backgrounds in the Middle East — Bosley grew up mostly in Riyadh, Saudi Arabia, and Letayf was raised in America but has family in Syria and Lebanon. Before coming to Columbia, Letayf was a political analyst specializing in the region and Bosley worked in the innovation office of the American University of



Alice Bosley (left) and Patricia Letayf in Kurdistan.

Iraq, advising students who were hoping to start their own businesses.

Bosley and Letayf were both interested in working with refugee populations and saw entrepreneurship as a way to create long-term solutions for building productive communities.

"There are a lot of refugee-support organizations dedicated to short-term care — basically, how to keep people alive," Bosley says. "Very few are focused on what comes next."

Bosley and Letayf started working intensively on the program in 2016 as a part of the SIPA Dean's Public Policy Challenge, an annual competition for business ideas that use technology to help solve global problems. Bosley also worked part-time at the Columbia Entrepreneurship Design Studio, which she credits with helping her to develop the prototype for the program.

"The competition really pushed us to get our plan done and provided us with milestones that we needed to reach along the way," Letayf says. "As we advanced through each round, we earned more funding."

This past March, when many of their classmates were headed off on spring break, Bosley and Letayf traveled to Erbil to run a pilot version of the program. After graduating in May, they started working on it full-time.

Bosley and Letayf initially picked Erbil as the first incubator site largely for logistical reasons: they both had connections in the region, and the city is one of the few places with a significant refugee community where refugees have the legal right not only to work but also to own businesses.

They've also found it to be an inspiring, hopeful place. Like Mosul, which sits only fifty-five miles away, Erbil is an ancient city. But while Mosul has been reduced to rubble by a devastating nine-month-long battle between Iraqi forces and ISIS, Erbil is blossoming. The ancient Assyrian fortress there stands intact, presiding over a busy marketplace, new suburban subdivisions, and modern office buildings.

"The startup community is new in Iraq, but Erbil is lively, with an engaged community," says Letayf. "We're excited to be there, working with these remarkable people, and we can't wait to show off some of their stories."

— Rebecca Shapiro

Scholarship Honors Kim Wall

Journalist Kim Wall '13JRN, '15SIPA was known for her curiosity, mischievous wit, and propensity to pursue offbeat stories that followed what she called "the undercurrents of rebellion." Her stories for publications such as the *Guardian*, *Harper's*, and the *Atlantic* covered a broad range of topics:



Kim Wall

leaking radioactive waste in the Marshall Islands, the ethical pitfalls of tourism in North Korea, the propagation of pop culture in Cuba. Her brand of journalism — which combined, as she liked to say, "shoe-leather reporting with a foreign-policy lens" — probed corners of the world that had been overlooked and gave voice to those who might otherwise have remained silent.

LEFT: COURTESY OF PATRICIA LETAYF; RIGHT: BENJAMIN HAAS

Wall was killed in August at the age of thirty while working on a story about Peter Madsen, a Danish inventor who had crowd-funded and built a mini-submarine. Mystery shrouds the exact circumstances of her death. Wall boarded the submarine for a short voyage. Then the sub sank and Madsen was rescued at sea. More than a week later, Wall's body was found in a bay near Copenhagen. Madsen has been charged with her murder.

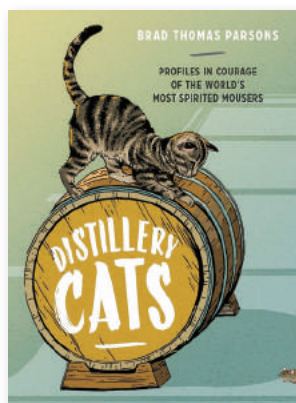
In October, Wall's family, friends, and colleagues gathered at the Graduate School of Journalism to remember the talented young reporter. "Humanity needs more courageous women like Kim — women who want and dare to give their voices to the weak ones and make this planet a better place to live," Wall's mother, Ingrid Wall, said. To honor their daughter, the family has raised more than \$100,000 to establish a grant fund through the International Women's Media Foundation. The grant will be offered to female journalists covering the same "undercurrents of rebellion" that drove Wall as a storyteller.

The journalism school has also created a Kim Wall Scholarship Fund, for which it is accepting donations. Dean Steve Coll says he is seeking an endowment for the fund so that it might be offered in perpetuity. Contributions may be made online at journalism.givenow.columbia.edu.

— Benjamin Preston
'11JRN

Attention Shoppers

A guide to this year's alumni-produced holiday gifts



Distillery Cats, a cheeky guide to whiskey distilleries and their feline inhabitants by Brad Thomas Parsons '95SOA. \$14.99. amazon.com

Carryall tote bag from Dagny Scout, a women's sports apparel brand founded by Lauren Amery '16BUS. \$65. dagnyscout.com



Tequila from Blue Nectar, cofounded by Nikhil Bahadur '12BUS. \$49.99. bluenectartequila.com



Men's slope jacket from Orsden, a ski apparel company founded by Sara Segall '14BUS. \$330. orsden.com

Japanese snack box from Bokksu, founded by Danny Taing '14SEAS. \$39 for one box. bokksu.com



Perfume from Scentbird, a subscription perfume service cofounded by Rachel ten Brink '01BUS. \$59.95 for a three-scent gift box. scentbird.com





A fedora should be lightweight felt, in brown or dusty gray.

A textured sport coat also pairs perfectly with jeans.

Use cedar shoetrees to keep the shape intact.

ASK AN ALUM TAILOR-MADE

Once voted the best-dressed man in America by the readers of *Esquire* magazine, **Dan Trepanier '09CC** is now the CEO and creative director of Articles of Style, an online bespoke menswear company that he founded with fellow Columbian Will Howe '10CC. We asked Trepanier for some practical fashion tips and advice on wardrobe essentials.

COLUMBIA MAGAZINE:

What's one rule of thumb that men should keep in mind when shopping for clothes?

DAN TREPANIER:

A good fit is the most important part of being a well-dressed gentleman. Frankly, it's more important than quality. I have friends who shop at the thrift store, and they spend more money at the tailor than they do at the store. They look fantastic for a few bucks. And then I know other people who spend a lot of money on clothes, but they don't fit. You never want to be the guy in the two-thousand-dollar Louis Vuitton suit that doesn't fit.

CM: How do you define style? Why is it important to you?

DT: Style is your cover letter, your résumé. We teach "Don't judge a book by its cover," but we do that every day, every time we look at someone. Style is your way of putting your best foot forward and introducing yourself without having to say anything. I grew up on a farm in Canada, in the middle of nowhere, and then played basketball at Columbia, so I didn't care about style for a long time, because it wasn't important in those arenas. As soon as I wanted to be taken seriously as a mature, smart gentleman, dressing the part really catapulted me up the ladder. It was life changing for me.

CM: What are some of your fashion pet peeves?

DT: I'm a little peeved about the trend toward overly casual clothing. It seems that everywhere you go, people are wearing workout gear. They've lost any sense of occasion.

CM: Is there an article of clothing that looks good on every man?

DT: A beautiful navy sport coat, an Oxford shirt in white or blue, a good pair of dress boots. The beauty of menswear is that you don't need a lot of clothes. You can build a wardrobe out of a few investment pieces; those are the classics that are going to work for most men, day in and day out.

CM: Where do you look for fashion inspiration?

DT: I usually look to the past, to classic American style icons like Paul Newman, Ralph Lauren, Steve McQueen, and James Dean. To me, they embody cool and casual, and they always looked sharp.

CM: What fashion trends do you see on the horizon?

DT: There's a consciousness that's growing — especially among younger people — about sourcing. The same thing that's happening in food is going to happen in fashion. People are going to ask, "How is it possible that this shirt is seven dollars? Who's getting hurt along the way?" I'm a big opponent of fast fashion. Cheap, disposable clothing is detrimental to craftsmen and to the planet.

— Ian Scheffler '12CC



Amok in the Art House

Leigh Ledare '08SOA is a visual artist working primarily with photography, film, and collage. His current show at the Art Institute of Chicago revolves around a film that he created in collaboration with ten psychologists, documenting a three-day experiment in group self-analysis on thirty volunteer participants. Ledare then created collages (including *Plot IV: Amok in the Outhouse*, above) based on themes that were discussed in the film. Ledare was named a 2017 Guggenheim Fellow this past April, and his work was also included in the 2017 Whitney Biennial.

NEWSMAKERS

- Three Columbia alumni are among this year's twenty-four MacArthur Fellows. They are **Tyshawn Sorey '17GSAS**, a prolific composer and performer known for working across an extensive range of musical idioms; **Regina Barzilay '03SEAS**, a computer scientist at MIT who studies natural-language processing and machine learning; and **Damon Rich '97CC**, an adjunct professor of architecture at Columbia who is also the founder of the Center for Urban Pedagogy, which uses art and design to promote civic engagement. **Kate Orff**, director of the Urban Design Program at Columbia's Graduate School of Architecture, Planning, and Preservation, was also a winner this year.
- *Los Comandos*, a film by **Juliana Schatz Preston '11JRN**, won the award for best documentary short at the Austin Film Festival this fall. The movie follows two teenagers working in an emergency medical unit in gang-ridden El Salvador.
- Four Columbia Law School alumnae were awarded US Supreme Court clerkships. **Beatrice Franklin '14LAW** and **Alyssa Barnard '15LAW** are both clerking for **Justice Ruth Bader Ginsburg '59LAW, '94HON** — Franklin began this past summer, and Barnard will start in 2019; **Lena Husani Hughes '12LAW** for Justice Elena Kagan; and **Sarah Hartman Sloan '16LAW** for retired justice John Paul Stevens.
- Four Columbia alumni made the National Book Awards longlist this year. **Erica Armstrong Dunbar '00GSAS** was nominated in the nonfiction category for *Never Caught: The Washingtons' Relentless Pursuit of Their Runaway Slave, Ona Judge*; **Daniel Alarcón '99CC** was nominated in the fiction category for *The King Is Always Above the People* (see our review on page 59); and **Marie Howe '83SOA** and **Mai Der Vang '14SOA** were honored for their respective poetry collections, *Magdalene* and *Afterland*.
- Columbia President Emeritus **Michael Sovern '53CC, '55LAW** received a Gold Honor Medal for Distinguished Service to Humanity from the National Institute of Social Sciences. He was one of three scholars to receive the award this year. Sovern joined the Columbia faculty in 1957 and is now the Chancellor Kent Professor of Law.

— Carolina Castro



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BULLETIN

UNIVERSITY NEWS AND VIEWS

JOACHIM FRANK WINS NOBEL PRIZE IN CHEMISTRY

Joachim Frank, a Columbia biochemist, won the 2017 Nobel Prize in Chemistry for his role in developing a way to create high-resolution 3D images of biomolecules such as proteins, lipids, and

Academy of Sciences' official prize announcement. "In the past few years, scientific literature has been filled with images of everything from proteins that cause antibiotic resistance to the surface of the Zika virus."

For scientists who study the inner workings of cells, it is often necessary to know what individual molecules look like. The shape of a protein, for example, can determine its function. But before cryo-electron microscopy became available about five years ago, scientists struggled to produce anything but fuzzy images of these molecules.

Frank, Henderson, and Dubochet changed that. Working separately but in a manner that complemented one another's advances, they came up with a solution that involved flash-freezing cells so that their constituent parts are locked in their natural configurations (Dubochet's contribution); shooting electron beams into the cells in order to detect the contours of even the tiniest molecules (Henderson's contribution); and then translating the resulting data into extraordinarily detailed 3D images (Frank's contribution).

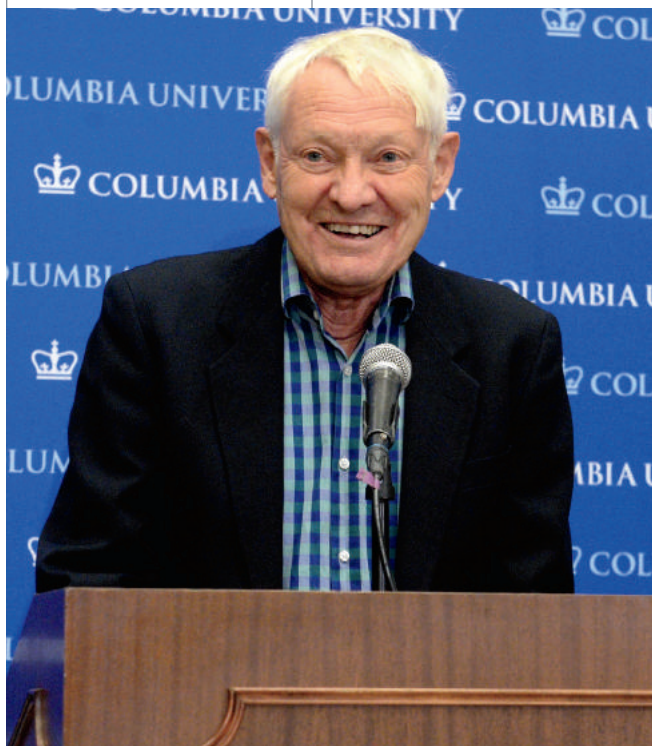
The technique has already proved indispensable to researchers. Last year, scientists used cryo-electron microscopy to analyze the structure of the Zika virus

and to quickly start developing drugs that could disable it. The technique has also given scientists their first close-up views of Salmonella as it attacks cells; of proteins that confer resistance to certain chemotherapies and antibiotics; and of the complex molecular interactions that govern our circadian rhythms.

"Now we can see the intricate details of the biomolecules in every corner of our cells, in every drop of our body fluids," says Sara Snogerup Linse, a Swedish scientist who chairs the Nobel committee for chemistry.

Frank, who was born in Germany during World War II, received degrees from the Universities of Freiburg and Munich before earning a doctorate in physics from the Technical University of Munich in 1970. Over the next few decades, he held positions at a number of academic institutions in Germany, the United Kingdom, and the United States, all the while researching the computational-imaging methods that eventually made cryo-electron microscopy possible. He joined Columbia as a professor in the Department of Biochemistry and Molecular Biophysics and the Department of Biological Sciences in 2008.

In his own research, Frank has used cryo-electron microscopy to investigate



Frank expressed gratitude to "all of the postdocs, students, and research associates" who "contributed pieces of this immense puzzle over the years."

ribosomes. He shares the award with Richard Henderson of the MRC Laboratory of Molecular Biology in Cambridge, UK, and Jacques Dubochet of the University of Lausanne in Switzerland. The trio's technique, called cryo-electron microscopy, is widely regarded as having revolutionized biological research.

"This method has moved biochemistry into a new era," reads the Royal Swedish

the interactions between ribosomes — which serve as the “protein factories” of the cell — and other molecules. In a 2013 paper in *Nature*, he uncovered new details about the ribosomes of a parasite that causes African sleeping sickness; that discovery is now guiding efforts to develop new treatments for this disease. In another *Nature* paper the same year, he revealed how the RNA molecules of many viruses can commandeer the ribosomes of their hosts’ cells to produce new viruses.

Speaking to journalists at Butler Library after the announcement of his prize on October 4, Frank expressed gratitude to “all of the post-docs, students, and research associates” who “contributed pieces of this immense puzzle over the years.” He said that his move to Columbia was crucial in the development of cryo-electron microscopy, both because of the high-caliber students he was able to recruit to his laboratory here and because of the University’s support for interdisciplinary research.

“There has been wonderful support, and generous gifts, that have made possible the acquisition of new instrumentation,” he said.

Which is not to say Frank was prepared for the 5:18 a.m. phone call from the Swedish Academy telling him he had won the Nobel.

“All I could say was, “This is such wonderful news,” he recalled. “I said it over and over again.”

For video of the October 4 event, visit news.columbia.edu/NobelPrize2017.



CUMC State of Mind

On November 2, the Empire State Building was lit up in blue to mark the 250th anniversary of Columbia University’s College of Physicians and Surgeons. The institution was the first medical school in New York State and the second in the American colonies upon its founding in 1767. To learn more about its history, visit newsroom.cumc.columbia.edu/empire-state.

COLUMBIA COMMITS \$100M FOR FACULTY DIVERSITY

The University recently announced that it is committing \$100 million over the next five years for the recruitment and retention of professors who traditionally have been underrepresented in higher education, as well as for career-development programs aimed at helping underrepresented doctoral and postdoctoral students succeed in academia.

The \$100 million commitment comes in addition to \$85 million that the University has dedicated to faculty-diversity initiatives since 2005.

“The aim is to develop new leaders and expand scholarship, initiatives, and programming to meet the needs of the University,” says President Lee C. Bollinger. “This is a long-standing initiative inseparable from Columbia’s identity and core values.”

BULLETIN

ALEX NAVAB AND LI LU JOIN TRUSTEES

Alex Navab '87CC and Li Lu '96CC, '96LAW, '96BUS, investment bankers and philanthropists with deep ties to Columbia, have been elected to the University's Board of Trustees. Their six-year terms began in September.

Navab, a native of Iran whose family escaped to Greece and subsequently to the United States following the 1979 Iranian revolution, served for many years as a senior executive at the private-equity firm Kohlberg Kravis Roberts & Co. He sits on the boards of numerous cultural and educational organizations, including the Columbia College Board of Visitors, and received the College's John Jay Award for distinguished professional achievement in 2011. He is also co-chair of the College's Core to Commencement Campaign Committee.

Li, who grew up in China during Mao Zedong's Cultural Revolution, was a prominent student activist who helped lead the Tiananmen Square protests in 1989. The following year, he was invited to speak about his experiences at Columbia and soon enrolled



Left:
Alex
Navab.
Right:
Li Lu.

at the University, earning degrees in economics, business, and law simultaneously. He has since run his own hedge fund, Himalaya Capital, while continuing to advocate for human-rights reforms in China. He received the College's John Jay Award in 2012. He has also received the Raoul Wallenberg Human Rights Award from the Congressional Human Rights Foundation, and the Reebok Human Rights Award for his human-rights advocacy.

"I am very pleased to welcome Alex Navab and Li Lu to the Board of Trustees," says President Lee C. Bollinger. "They are loyal Columbia alumni who bring with them decades of success and innovation in business and civic leadership, as well as a diversity of personal experience that will be invaluable as we build the University's academic excellence and our engagement with the world in the years ahead."



WOMEN'S CROSS-COUNTRY TEAM CLAIMS IVY TITLE

Columbia women triumphed at the Ivy League Heptagonal Cross Country Championships this fall, winning their first team title since 2005. The Columbia men's team took second place overall, in part on the strength of senior Ryan Thomas's individual first-place finish.

NICHOLAS LEMANN TO DIRECT COLUMBIA WORLD PROJECTS

Nicholas Lemann, the dean emeritus of the journalism school, has been named the inaugural director of Columbia World Projects, a University-wide initiative created this past April. The initiative aims to facilitate novel collaborations between scholars and non-academic partners to address pressing global issues.

Lemann, who led the journalism school from 2003 to 2013, is the Joseph Pulitzer II and Edith Pulitzer Moore Professor of Journalism. He also directs the University-owned publishing imprint Columbia Global Reports and is a staff writer at the *New Yorker*.

As the head of Columbia World Projects, Lemann will spearhead an effort to connect academic work "with organizations and entities beyond the academy that possess the power and influence to transform research into concrete consequences benefiting humanity," said President Lee C. Bollinger in announcing his new appointment.

Bollinger also announced that Avril Haines, former deputy national security adviser to President Barack Obama '83CC and former deputy director of the Central Intelligence Agency, has joined the University as senior researcher for Columbia World Projects.

ZUCKERMAN INSTITUTE RESEARCHERS RECEIVE \$25M IN FEDERAL GRANTS

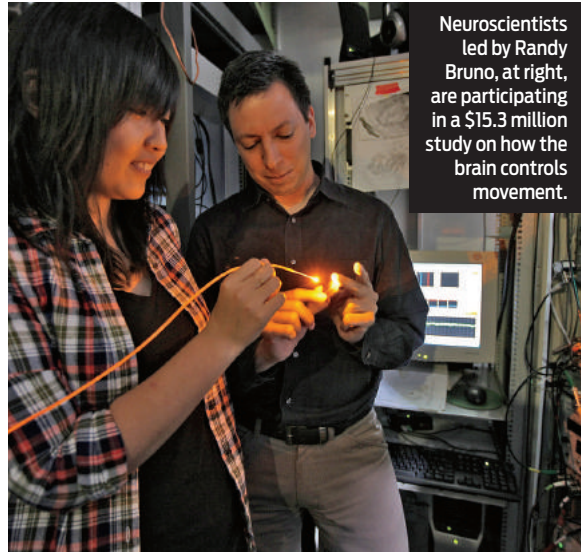
Researchers at Columbia's Zuckerman Institute have received more than \$25 million in grants from the National Institutes of Health's BRAIN Initiative in recent months.

One such award, for \$15.3 million, will enable a team of Columbia neuroscientists, data scientists, and engineers to address one of biology's most fundamental questions: how does the brain tell the body to move?

"Our ultimate goal is to create a functional blueprint — a map — of all the brain's connections that together drive movement," says Thomas M. Jessell, codirector of the Zuckerman Institute, who, with Columbia neuroscientist Rui Costa, is co-leader of the \$15.3 million project. "With the BRAIN Initiative's enthusiastic support for this first-of-its-kind team approach, we have the means to gain insight into one of the most

complex neuroscience questions of our time."

Jessell and Costa's grant is one of only five awards to US universities through a special program that aims to solve major questions in neuroscience. Two other groups of Zuckerman Institute researchers are contributing to grantees based at other universities: Columbia biochemist Richard Mann's lab will receive \$3.2 million as part of a Caltech effort to understand how the fruit fly's brain sends information to its motor system; and Columbia neuroscientist Attila Losonczy's lab will receive \$2.4 million as part of a Stanford-led project to investigate how the brain consolidates long-term memories.



Neuroscientists led by Randy Bruno, at right, are participating in a \$15.3 million study on how the brain controls movement.

In addition, Columbia biomedical engineer Elizabeth Hillman, who is also a principal investigator at the Zuckerman Institute, received a separate \$4.2 million BRAIN Initiative award this past summer to improve the use and interpretation of human-brain imaging methods.

JOHN ABBOTT

COLUMBIA *alumni* ASSOCIATION 

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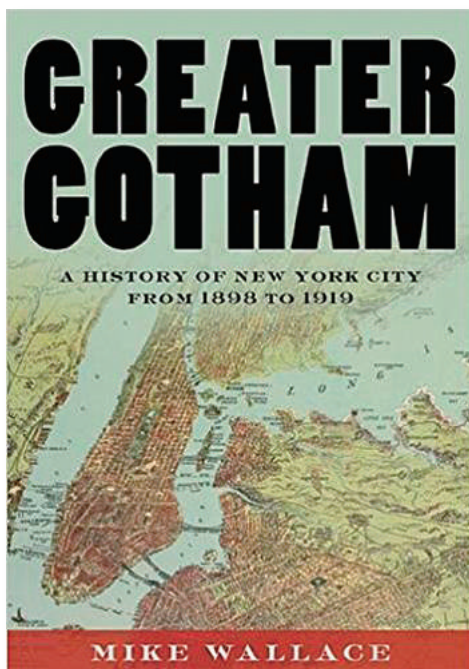
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Greater Gotham

By Mike Wallace '64CC, '73GSAS (Oxford University Press)

From a distance, *Greater Gotham* looks like a formidable book. But just as the Empire State Building looms less the closer you get, Mike Wallace's monumental history of New York City feels compact and almost fleet once you flip past the table of contents. It picks up in 1898, where *Gotham*, by Wallace '64CC, '73GSAS and Edwin G. Burrows '66SIPA, '74GSAS, left off, and covers just twenty-one outsized years in 1,100 pages. This cornucopia opens with



them shared the certainty that what was best for them was best for New York.

Superlatives toll through *Greater Gotham*, each one seemingly the product of a day's burrowing in the archives. New York, Wallace writes in one of his catalogs (the exuberant italics are his), "had the planet's *tallest* skyscraper, its *biggest* office building, and its *largest* department store, hotel, corporate employer, bankers club, steamship fleet, electrical-generating plant, bakery, ballroom, library stacks . . ." The list goes on. ("Also the *longest* bar, the *richest* man, and the *first* auto highway.")

Wallace writes not for his PhD-wielding peers, but for anyone with an interest in the past. Yes, he occasionally waxes a little overly generous with detail — if you're in the market for a punchy paragraph about the rope-making monopoly, Wallace is your man — but he also dispenses wry asides and telling anecdotes with the gusto of a fireside raconteur. We meet the anthropologist Franz Boas as a young assistant at the American Museum of Natural History, when he suggests that the explorer Robert Peary bring back an actual Inuit person to help annotate a shipload of artifacts. "He hadn't, however, planned on three men, one woman, and a girl and boy (the latter, Minik, being the 8-year-old son of Qisuk, one of the men)," Wallace remarks. The incongruity of an Eskimo family turning up on Central Park West at the height of the Gilded

Age seems momentarily comical — until we learn that the stranded Inuit were housed in the museum's basement, where they contracted tuberculosis and died — all, that is, except for the orphaned Minik.

Wallace erects a scaffolding of facts and insight that he builds into a full-fledged saga. Technology, immigration, and economic ferment created both a female workforce and a fresh set of professions. "New positions were associated with new technologies, ones that hadn't yet been sex-typed," he writes. The gender-neutrality of machines didn't last long, though: "Secretaries were called 'Miss

Brushstroke by brushstroke, fact by fact, Wallace builds up a portrait of a city full of vitality and injustice, narcissism and aspiration.

the consolidation of New York and Brooklyn, which Wallace sees as the embodiment of monopoly capitalism in its yeasty heyday. Big corporations fed themselves on smaller ones, and a handful of the city's elite club members divided the nation's material wealth among themselves. The Havemeyer family presided over an empire of sugar, Carnegie controlled steel, the Rockefellers owned oil, and all of

Remingtons' after the typewriters they used — helping to lock in the job category as female.” What followed was a social and legal war over sexual mores, women’s rights, and gender equality — a conflict that culminated in the Nineteenth Amendment and, a century later, still rages on. Wallace stays silent on his story’s contemporary resonances, but readers will have no trouble picking them up. Race, corruption, capitalism’s beneficence and depredations, the skyline rising out of control, nativist fury over immigration, the disorienting power of technology — virtually every topic he treats buzzes daily through my Facebook feed and yours. I find those connections between past and present alternately depressing and invigorating. To sit in a subway car stalled by rusting signals and read about the system’s explosive construction more than a hundred years ago is to inhale gratitude and exhale resentment. They bequeathed us such fine transit! How could we let it rot?

Brushstroke by brushstroke, fact by fact, Wallace builds up a portrait of a city full of vitality and injustice, civic narcissism and collective aspiration, a noisy, crowded metropolis that is constantly being raised and ruined at the same time. It’s a New York that is both unimaginably different and comfortingly similar to the one I walk through every day.

— Justin Davidson
’90GSAS, ’94SOA

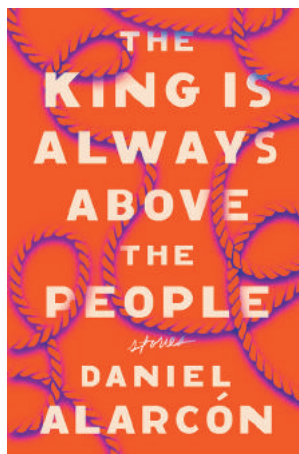
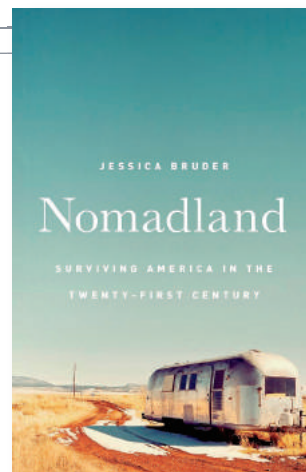
Justin Davidson is a Pulitzer Prize-winning classical-music and architecture critic for New York magazine.

EXCERPT

Nomadland

By Jessica Bruder '04JRN An adjunct professor at Columbia Journalism School, Bruder hit the road to document the experiences of transient Americans who live in motor homes, travel trailers, and vans, following seasonal work.

Inevitably the online conversations between kindred wanderers spilled into real-world gatherings. As the nomads met over campfires in forests and deserts around the country, they began to form the kind of improvised clans that the novelist Armistead Maupin called “logical” — rather than “biological” — family. A few even called it a “vanily.” For some of them, spending holidays together became more appealing than reuniting with actual kin. A typical scene: Christmas dinner on a barren, moonscape-like stretch of desert near Interstate 10 in California draws more than a dozen vehicles, whose inhabitants range in age from their twenties to seventies. They share a fifteen-pound turkey that has been deboned, halved, and cooked on a pair of portable grills, with sides of mashed potatoes, gravy, and cranberry sauce and two kinds of pie, until even the dogs licking leftover crumbs from the plates are sated.



In “The Thousands,” the first story in the gorgeous new collection *The King Is Always Above the People*, by Daniel Alarcón '99CC, a group of settlers sneak onto a patch of uninhabited land in the middle of the night.

The King Is Always Above the People

By Daniel Alarcón '99CC

They have until morning to build shelter or the government will legally be able to evict them. The task is daunting, but the settlers are accustomed to hard work and are desperate: “We would raise our children here. Make a life here. Understand that not so long ago, this was nowhere.” It’s an apt beginning to a book about journeys and displacement, about the urgent dream of a fresh start.

“The Thousands” is narrated in the first-person plural —

one generation writing to the next — which implies a collective motivation for resettling. But the stories that follow prove that there is no typical migration story. Nearly every character in Alarcón’s book — which was longlisted for the National Book Award — is traveling, or at least casting an eye elsewhere, seeking something better, though their restlessness takes very different forms. In “The Provincials,” a young actor embarks on

BOOKS

a road trip to his father's unnamed hometown, though he actually yearns to follow his brother, who has immigrated to California. In "The Auroras," a recently divorced college professor takes a leave of absence and travels to an industrial port city, where he stumbles into a complicated relationship with a married woman. And in the title story, the narrator leaves his rural community for a life of solitude in a big city; a pregnant girlfriend lures him back, but even with a child on the way, he can't imagine his future in their small town.

If anything unites Alarcón's rich cast of characters, it is that they all seem to be searching not just for a new set of circumstances, but for new identities entirely. The narrator of "The Provincials" stops hoping to join his brother in California and starts pretending that he *is* his brother, telling distant relatives that he's just home for a visit. The young man in the title story claims to be an orphan even though his family is alive and searching for him. The mild-mannered college professor in "The Auroras" envisions spending his sabbatical year as a manual laborer, working on the docks. But as he gets further enmeshed in the life of his new lover, he starts to assume new roles. When she tells her friends that he is a medical doctor, he starts giving exams and issuing diagnoses; when she urges him toward a violent act, he becomes the kind of man capable of committing it.

The most heart-wrenching inner battle belongs to the

title character of "The Ballad of Rocky Rontal." Rocky is "a poor boy growing up in a poor city in a poor region of a very rich country." Gangs help him survive a childhood of abuse, but they also land him in jail for murder; then his younger sister is killed, presumably in retribution. Rocky spends thirty-two years being angry, fantasizing about revenge. He is released into a "world that's disappointingly familiar." But Rocky believes that he has the ability to change, to be different from the boy he was when he went to jail, until his will is tested in a potentially devastating way.

Alarcón, who is a professor of broadcast journalism at Columbia, is also the cofounder of Radio Ambulante, a Spanish-language podcast that uses long-form narrative storytelling to report on Latin America, often focusing on his native Peru. It's likely a fair assumption that many of the stories in *The King Is Always Above the People* are also set in Latin America, but Alarcón is purposefully reticent about place, rarely giving identifying details; rather, characters travel between "the port city" and "the capital" and "a beach town" and so on. It gives the collection a dreamy, fable-like quality and also emphasizes the universality of Alarcón's themes. As he proves with this superb collection, moving forward is often messy and sometimes even ill-intentioned; but generally it's founded on one inherently human principle: hope.

— Rebecca Shapiro

The Girl of the Lake

By Bill Roorbach '90SOA

In *The Girl of the Lake*, Bill Roorbach '90SOA threads together nine carefully crafted short stories that offer witty and deeply satisfying insights on marriage, relationships, and the perilous resentments of old friends.

The first story, "Harbinger Hall," is a charming tale of an elderly immigrant who, while walking on his estate, finds a boy who is skipping school to play war games. The man shares his own war sagas with the child, and a gentle and unlikely friendship grows between them.

Other stories play darker notes: two involve old friends who reunite in midlife to pursue simmering and mysterious vendettas.

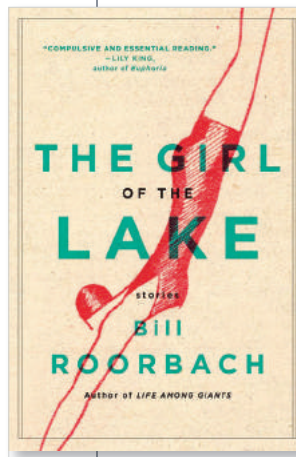
In "Dung Beetle," a museum curator gathers the courage and curiosity to visit his former Oxford roommate, an African prince who has

recently assassinated his parents. In "Broadax, Inc.," a wealthy executive's even wealthier college friend devises a labyrinthine revenge for a long-ago affair.

"The Fall," perhaps the most harrowing story, follows a young unhappy couple on a backpacking trip in Maine. Jean is lost in thought, considering her future with her boyfriend, when suddenly she watches him fall to his death off the side of a cliff. In shock, she looks back on their relationship — "long elegant lines of thought with no bearing on the emergency" — then confesses with a blunt humor typical of the book, "I never loved him one bit."

Roorbach's previous book of short stories, *Big Bend*, won both the Flannery O'Connor Award for Short Fiction and the O. Henry Award. It's easy to see why Roorbach is so admired within the genre. With *The Girl of the Lake*, he gives us a cohesive collection, balancing delight and deceit, death and tenderness, with a deftness only a masterful writer could accomplish.

— Rebecca Kelliher '13BC



READING LIST

New and noteworthy releases

WOLF SEASON by Helen Benedict Columbia Journalism professor Helen Benedict is known for her compassionate examination of how women experience war; she is the author of seven novels and five works of nonfiction, many of which explore related themes. In her latest novel, Benedict writes about three women — an Iraq War veteran, a widowed Iraqi refugee, and a young mother with a husband deployed in Afghanistan — as they wait out a hurricane in upstate New York.

WHAT IS IT ALL BUT LUMINOUS by Art Garfunkel '65CC The folk singer's first memoir reads more like a secret diary than an autobiography. Written largely in verse — in a font meant to mimic handwriting — and peppered with photographs, it chronicles Garfunkel's middle-class Jewish childhood in Queens, education at Columbia, rise to the top of the pop charts with Simon and Garfunkel, and finally the quiet and consistent joys of family life.

FIVE-CARAT SOUL by James McBride '80JRN James McBride is a writer who won't be pigeonholed — his wildly diverse and successful books include a sentimental family memoir (bestseller *The Color of Water*) and a picaresque historical novel (National Book Award winner *The Good*

Lord Bird). There are some unifying features to his work, though: a focus on race, family, and larger-than-life characters. All are present in his latest, a vibrant story collection that introduces us to an antique-toy dealer, a boxer literally fighting for his soul, a group of poor kids forming a neighborhood band, and a mixed-race boy who thinks that his father is Abraham Lincoln.

JEWISH COMEDY: A SERIOUS HISTORY by Jeremy Dauber Jewish history and comedy have been intertwined since biblical times, argues Jeremy Dauber, a Columbia professor of Yiddish language, literature, and culture. In his insightful, entertaining new book, he traces the evolution of Jewish humor from ancient Talmudic jokes to Borscht Belt routines to episodes of *Seinfeld* and *Broad City*.

THE FUTURE OF US by Irwin Redlener Few understand the challenges facing American children better than Irwin Redlener. As a pediatrician, he has worked with often forgotten populations, like poor children in the Arkansas Delta, child-abuse victims in the inner city, and kids affected by 9/11 and Hurricane Katrina. With Paul Simon, he founded the Children's Health Fund, an advocacy and public-health organization, and he also runs the Program on Child Well-Being and Resilience at Columbia's Earth Institute. In this memoir, he chronicles his storied career and makes



a powerful argument that lack of access to adequate health care and education is not only harming society's most vulnerable members but undermining America's resilience and influence.

MRS. by Caitlin Macy '96SOA Like a modern Edith Wharton, novelist Caitlin Macy documents the habits of the well-heeled women of New York's Upper East Side. At the center of her juicy third novel is Philippa Lye, a woman with a questionable past who has married her way into the ultra-wealthy investment-banking set. Philippa refuses to participate in the gossip-fueled culture that rules the preschool drop-off hour, but it catches up with her anyway.

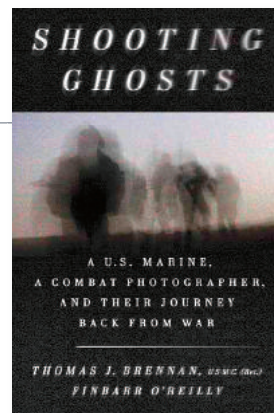
SUZANNE'S CHILDREN by Anne Nelson Few people know the story of Suzanne Spaak, a Belgian aristocrat and one of Paris's leading socialites, who became a hero of the French Resistance during World War II.

Together with her friend Mira Sokol, a Polish-Jewish refugee, Spaak helped "kidnap" hundreds of Jewish children, and kept them hidden during the German occupation of Paris. SIPA professor Anne Nelson's riveting new biography — the first book to focus on Spaak — traces Spaak's life from her Catholic upbringing to her eventual execution by the Gestapo.

CALDER: THE CONQUEST OF TIME by Jed Perl '72CC For nearly a century, museum-goers have been charmed by Alexander Calder's bold mobiles and whimsical wire sculptures. But forty years after the beloved artist's death, there has been no major biography of him. With his new book, which focuses on Calder's early years, noted art critic Jed Perl changes that. He uses never-before-seen letters and papers, as well as over 350 illustrations, to demonstrate how Calder's childhood and life abroad came to shape his illustrious career.

The Lens of War

In a new joint memoir, *Shooting Ghosts*, former US Marine sergeant Thomas J. Brennan '15JRN and conflict photographer Finbarr O'Reilly write about their unlikely friendship and the challenges they faced coming home from war. Here, former US Marine captain Michael Christman '00SEAS talks with Brennan about the book.



Thomas J. Brennan

Michael Christman: What do Marines and conflict journalists have in common?

Thomas J. Brennan: We're definitely both adrenaline junkies; we like a challenge, and we're suckers for punishment. I didn't deploy to Afghanistan thinking I was going to have a Sealy Posturepedic bed to sleep on for six months; I'm sure Finbarr felt the same way. But the way we processed the aftereffects of war is different. Fin writes in the book about how we're both plagued by guilt, or what's known as moral injury, but Marines are haunted by what we did or didn't do during combat. For journalists, it's about watching and documenting people getting hurt or killed without being able to do anything.

MC: In the book, you talk about meeting Finbarr for the first time and some of your preconceived notions about journalists.

TJB: I'd seen other Marines get in trouble thanks to reporters; I'd even been disciplined when a photo that one media outlet published showed

my uniform sleeves rolled up. I was already responsible for an outpost, two villages, millions of dollars in gear, and fifteen Marines, and I didn't want to be responsible for anyone else — especially someone who was unprepared for harsh living conditions or other realities of war. And I didn't trust journalists to get the stories right. When I had reporters embedded in my unit in Fallujah, they showed up, they videotaped us, and they left. Finbarr was different. He became part of the squad. He helped take the trash out. He helped clean in the morning. He got it right.

MC: I think there's a narrative out there that warriors are unbreakable, but you show a different side.

TJB: Unbreakable, yeah. We're absolutely breakable. When you're in the military, you have to suppress your emotions just to be able to function. Then you get home, and you're back with your family, and you're supposed to feel happy. But I had a hard time turning the switch back on. PTSD is kind of a combination of a slow burn and specific triggering incidents. You have these moments that are like stepping on Legos in the dark. When you find them, they really friggin' hurt.

MC: You eventually overcame PTSD and a traumatic brain injury. What worked for you?

TJB: As far as mental health goes, I'm hesitant to say I'm a success story. I'll never be cured. I don't think there is a cure for moral injury. But therapy was very effective. I wish I'd gone earlier; it was obvious that I needed help. But I think there's still a stigma in the Marines — asking for help can be seen as a sign

of weakness. It's also useful to have a creative outlet. Mine is The War Horse, a nonprofit online newsroom that I founded, focusing on the Departments of Defense and Veterans Affairs.

MC: How does your love-hate relationship with the Marine Corps influence The War Horse?

TJB: If we're only publishing fluff stories, then we're propaganda. If we're only running bad stories, then we're adversarial. We want the scales to be balanced. That comes through reporting on the good, the bad, and the ugly. A recent project was an exposé of the inappropriate exchange of naked photos of female Marines, and it was definitely the uglier side. That story showed people what to expect from our newsroom.

MC: What was it like writing a memoir with someone else?

TJB: It was really easy, actually. We wrote the book in three sections: Finbarr's narrative arc, my narrative arc, and our joint narrative arc. They fell together pretty seamlessly. For me, writing was therapeutic. The ultimate goal was always to publish, but I had some hesitations. I'm a pretty private person, and writing this book meant delving into some very personal issues — mood swings, suicidal thoughts, the effects of the war on my marriage. But it helped that Fin and I both had the same motivations. We wrote the book for the greater good of the veteran community, to help people feel less alone. I know that I'm not the only person in my squad who has battled thoughts of suicide, and I wanted to do right by the people I served with and tell not just my story, but our story.

CLASSIFIEDS

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ASHFORD, CT: Hilltop 2BR, 2BA cottage built in early 1900s. Features large, cypress-paneled room with coffered ceiling and gigantic fieldstone fireplace. 2-acre property surrounded on 3 sides by protected land. 5 minutes from UConn campus. \$225,000. brianjquinn@mac.com.

BERKSHIRES: Unique opportunity to live in a former church converted into a modern residence. Ideal for artists, musicians, and all creative spirits. Near Berkshire attractions. 2.5 hours from NYC and Boston. www.millriversteeple.com. Contact: Tim Lovett, Berkshire Property Agents, 413-528-6800.

BOCA RATON, FL: 5-bedroom, immaculate home with gorgeous pool in private, guard-gated, one-acre community of multi-million-dollar custom homes. Move-in ready. Priced close to land value. 561-931-8320. www.8235twinlake.com. Will consider rental.

WESTPORT, CT: 5-bedroom, 5,000-square-foot, year-round home at Compo Beach. 5 min to NYC train. A+ rated school system, close to all amenities, steps to the beach. Vacation at home!! 203-451-2157, www.westportatthebeach.com.

VACATION RENTALS

BRECKENRIDGE, CO: Ski at world-class resort. Stay in our beautiful, contemporary home. 4-bed/4.5-bath, sleeps 11. 970-393-0321, tenmileview@gmail.com.

KEY WEST: Two-bedroom, furnished condo in Truman Annex. Walk to shopping, beach, restaurants. No pets. George Scouras: 631-896-4099.

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

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

WELLFLEET, CAPE COD: A house, not a cottage! 3BR, great room, generous deck, screened-in porch, Wi-Fi. National Seashore beaches and ponds. \$3,400/2 weeks or \$6,500/month. sgedal@post.harvard.edu.

RETAIL

SAPPHIRE DISCOUNT MART: Discount store near Columbia carries all household items: bedding, plasticware, cookware, sanitary items, cleaning products, electronics, pet supplies, food/beverages, party supplies, beauty products, and more. 1290 Amsterdam Avenue. 10% discount with Columbia ID.

PERSONALS

Athletic, intelligent, sexy, elegant health writer with flexibility seeks Columbia doc for an amazing future. 917-836-7876.

Cultured CT blonde, widowed, early 60s. Looking for a warm and witty man, 60s-70s, for friendship and good company. Contact CTgirl110@gmail.com.

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

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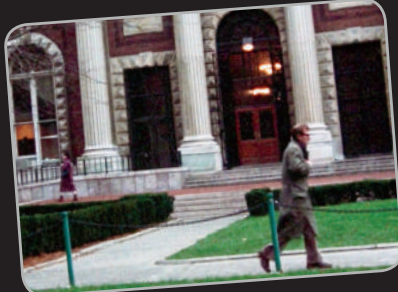
• Contact: jj2900@columbia.edu • Rate: \$6 per word

FINALS

Ready For Our Close-up

The Morningside campus makes a cameo this winter in *The Post*, Steven Spielberg's drama about the journalists who published the Pentagon Papers. Can you name these other movies in which Columbia steals the scene?

1 This Woody Allen movie won the 1987 Academy Award for best original screenplay.



2 In this 1996 rom-com, Barbra Streisand plays Rose Morgan, a lovelorn Columbia English professor.



3 This 2007 comedy stars Scarlett Johansson as a recent college graduate who gets a job with a wealthy Manhattan family.



4 In this 1984 blockbuster, parapsychology is an area of study.



5 This 2002 action flick opens with a class field trip to a genetics lab, which leads to a tangled web of intrigue.



6 Will Smith is a professional "date doctor" in this 2005 comedy. Naturally, there's a catch.



7 A Columbia PhD student races to class in this 1976 thriller starring Dustin Hoffman and Sir Laurence Olivier.



8 William Hurt made his debut in this 1980 film, playing a professor who experiments with hallucinogenic drugs.



9 Julianne Moore plays a Columbia linguist who receives a devastating diagnosis in this 2014 drama.

ANSWERS 1 *Hannah and Her Sisters*, 2 *The Mirror Has Two Faces*, 3 *The Nanny Diaries*, 4 *Ghostbusters*, 5 *Spider-Man*, 6 *Hitch*, 7 *Marathon Man*, 8 *Altered States*, 9 *Still Alice*

**TO OUR RIDERS, VOLUNTEERS,
DONORS, FOUNDERS CIRCLE,
AND SPONSORS — THANK YOU
FOR HELPING US ACCELERATE
HOPE IN CANCER RESEARCH
AND CARE. SEE YOU IN 2018.**



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“It’s about the mind-boggling pace we’re all moving at now.”

— Visual Arts Professor Sarah Sze

Sze’s Second Avenue Subway installation, *Blueprint for a Landscape*, shows yet again how Columbia’s artists connect us to the city, the world, and the world of ideas.

Arts and Ideas is a Columbia commitment. Find yours.

commitment.columbia.edu



Metropolitan Transportation Authority, Flickr