The Atlantic

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THE TECH ISSUE

WHAT JEFF BEZOS WANTS

His master plan, and what it means for the rest of us

BY FRANKLIN FOER

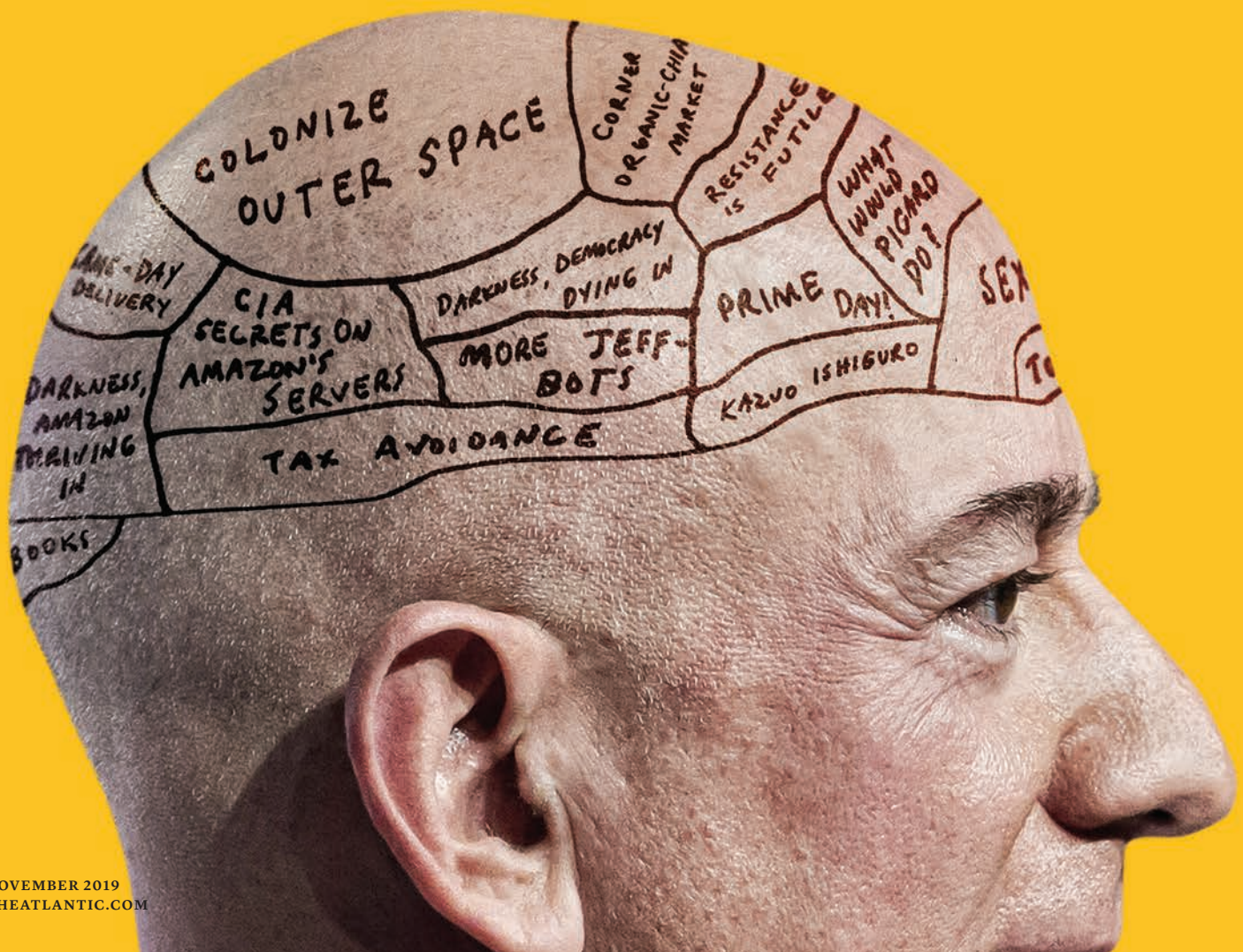

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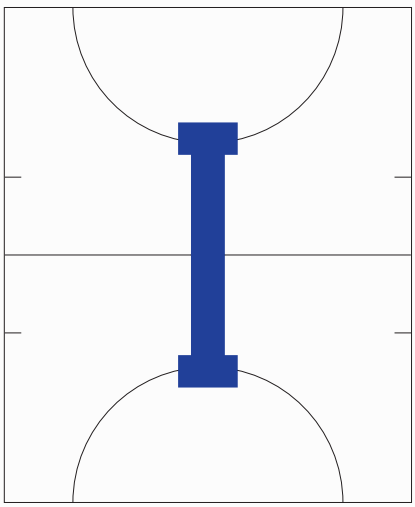
PHOTO: KALISZ

THE END OF NOSEBLEED SEATS

Sports fans crave getting closer to the game. Edge technology is poised to bring them there.



IT'S 10 MINUTES UNTIL TIPOFF and you're still in the arena parking lot. Not wanting to miss a second of the action, you go into full panic mode.

But imagine if you didn't.

Imagine walking into a stadium without fumbling for your ticket. Imagine a hologram of your favorite player guiding you through the concourse. No lines, no stress. Just a notification detailing the real-time, pregame shot chart of the team's point guard and a craft beer delivered to your seat.

This is the future of live sports—a future that will revolutionize nearly every aspect of the fan experience—and it will be powered through edge technology.

What is the edge? At its heart, the edge allows an unprecedented amount of data to be collected and processed on the spot, hundreds of times faster than before, enabling next-level digital and personalized experiences. It does this by taking the data and insights from the network to engage with fans and employees, while also processing data closer to the action. Information no longer needs to travel all the way to the cloud; it's turned into experiences that are processed on-site or even on-device.

The edge still works in tandem with the cloud, but it speeds results, reducing the cloud's workload and, in so doing, opens up game-changing possibilities.

Sports arenas are already beginning to adopt the edge. From a hardware perspective, this means placing sensors in the court, the backboards, and even the balls, which can provide instant insights and analytics. It means outfitting players with sensors that monitor real-time health data. And it means equipping the arena itself with hundreds of cameras, microphones, and Wi-Fi access points.

During the game, technology at the edge allows fans to engage more deeply with the action. The diehards will be able to track microstats, like a player's sprint speed or the arc of a three-point shot, or watch through AR goggles, which overlay relevant and interesting stats to whatever aspect of the game they're viewing.

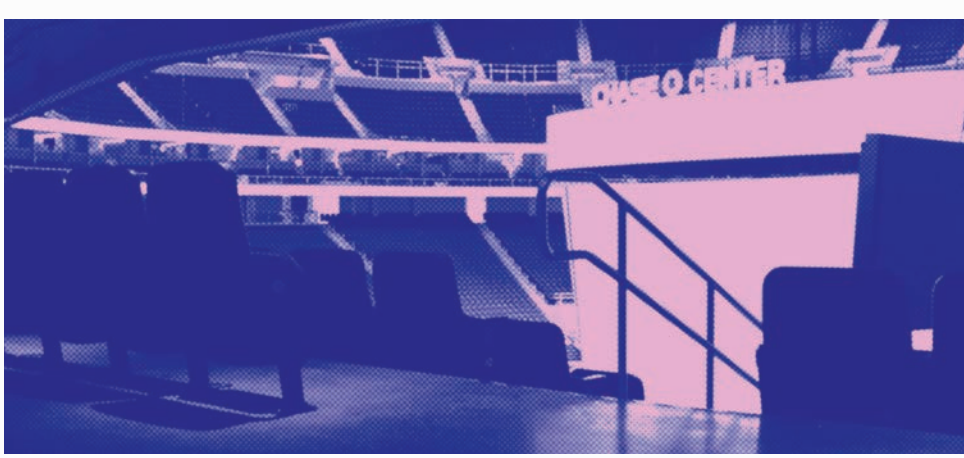
The edge will also enhance the second-screen experience on fans' mobile devices, offering innumerable instant-replay angles, predictive gaming, in-game betting opportunities (in states where gambling is legal), and more.

If this sounds like information overload, don't worry. The beauty of the edge is that it provides opportunities for everyone to connect with live sports, including casual or "fluid" fans, in the words of Angela Ruggiero, a gold medal–winning athlete and the CEO and a co-founder of the Sports Innovation Lab. Indeed, the experience will be completely personalized. Fans will choose how they engage with the game—what data, stats, and other bonus content are meaningful to their experience—while arenas will cater to these preferences. They'll know if you simply want directions to the least crowded bar, if you've been eyeing that vintage jersey for a few months and just need a discount offer to pull the trigger, or even if your kid is playing a video game on his tablet that relates to the action on the court.

Even for those who are not in attendance, the edge can get fans closer to the game. VR headsets, which require torrents of live broadcast data to be processed instantaneously, will transport fans from their "exercise bike" (i.e., couch) to the arena: to hear the roar of the crowd, choose a viewing angle along the sideline, or watch a play unfold from a player's perspective.

Of course, the edge spans well beyond sports, from health-care to hospitality to transportation. (Autonomous vehicles, for instance, will rely on the edge, as they need to make instantaneous decisions constantly, with zero lag time or margin for error.) But when you're sitting courtside, desperate for any excuse to high-five your neighbor, the only thing that matters is the game in front of you. All you care about is the seconds ticking away until halftime, the heart rate of your team's top scorer, and knowing that your next beer is already on its way.

Learn more about edge technology by watching our original documentary at **TheAtlantic.com/TheEdge.**



↑ The edge is in action at the all-new Chase Center in San Francisco. Enabled by technology from Hewlett Packard Enterprise, the fan experience is more connected than ever.

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OF NO PARTY OR CLIQUE

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"Quiet places," says the acoustic ecologist Gordon Hempton, "have been on the road to extinction at a rate that far exceeds the extinction of species." Yet experts say the human body does not adapt to noise.

Photograph by CASSIDY ARAIZA

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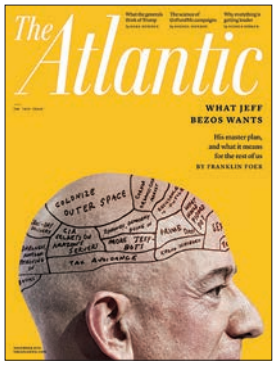

Photo rendering by Patrick White

COVER: ANDREW HARRER/BLOOMBERG/GETTY

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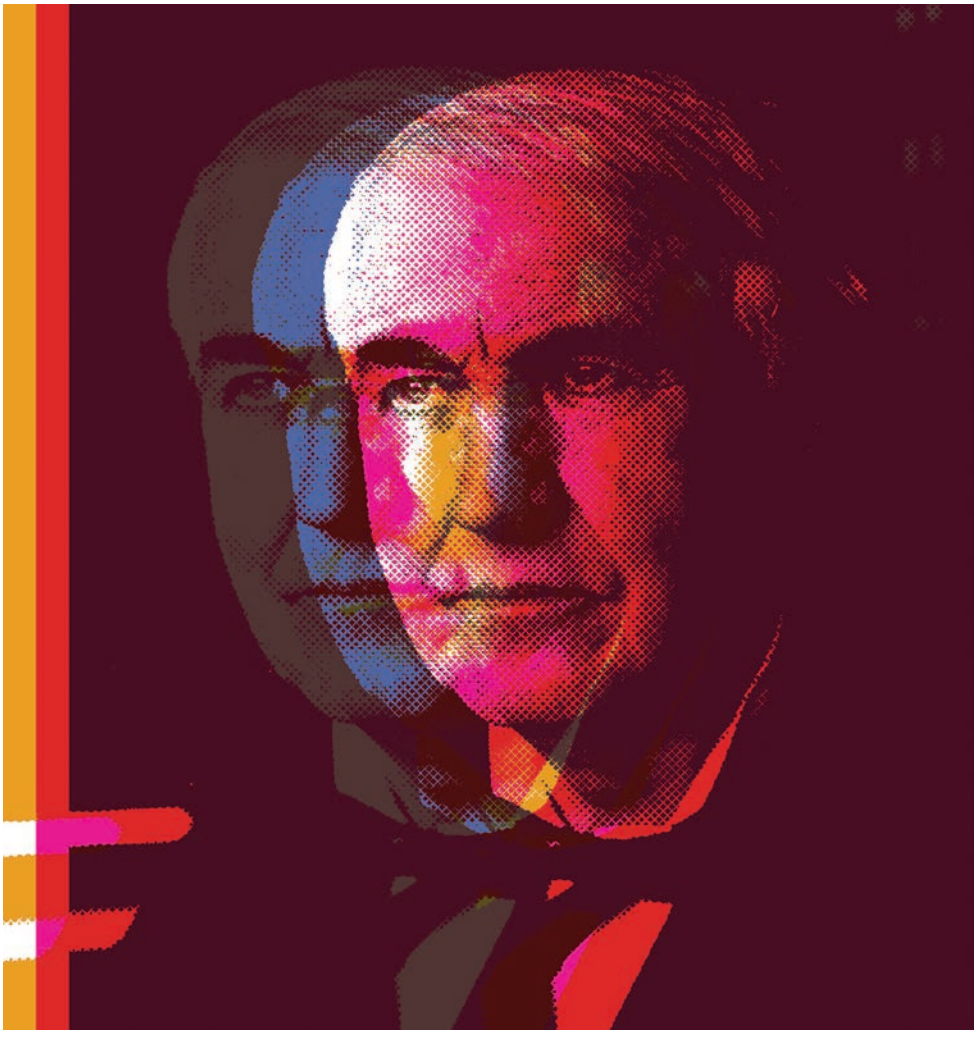

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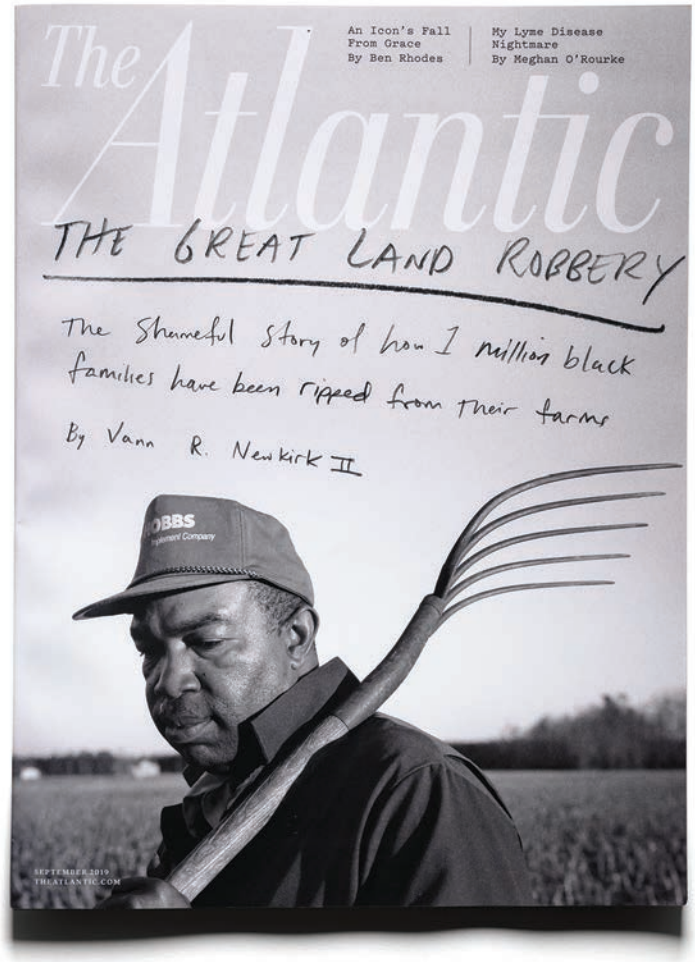

• THE CONVERSATION

This Land Was Our Land

For the September cover story, Vann R. Newkirk II wrote about how nearly 1 million black farmers were robbed of their livelihood.

Mr. Newkirk's poignant story about the precipitous loss of African American land sheds light on an issue that has affected—and devastated—generations of families throughout the South. The loss of this land, also called "heirs' property," has denied these families the most valuable and stable source of generational wealth.

However, we feel it is important to also illuminate the recent progress that has been made at the national level to address this issue. Together, we have led a bipartisan effort in the U.S. Senate over the past year to begin resolving the challenging bureaucratic and legal issues that have long plagued those Americans who have inherited land without a clear title. The 2018 Farm Bill included our legislation to make it easier for these landowners to receive a Department of Agriculture farm number—a crucial designation that unlocks federal resources. That bill also required a study of other issues that may be affecting the ability of heirs'-property owners to successfully operate farms and ranches.

Our home states of Alabama and South Carolina are widely considered ground zero for this issue. We've taken a good first step, but we have a lot more work to do to reverse this disturbing trend and protect this important foundation of black wealth in the South.

Senator Doug Jones
of Alabama
Senator Tim Scott of
South Carolina

Both the poignant cover photo, of a black farmer, and the powerful and beautifully written article by Vann R. Newkirk II reminded me of Edwin Markham's famous 1898 poem, "The Man With the Hoe."

As Markham asks, "O masters, lords and rulers in all lands / How will the Future reckon with this Man?" And how will America reckon with 400 years of injustices and indignities visited on our black citizens and repair the damage? As a nation, we must consider some form of reparations if we are to right a profound wrong.

Benjamin J. Hubbard
COSTA MESA, CALIF.

Vann R. Newkirk II replies:

Senators Jones and Scott: I thank you both for reading the story, and I know many of the farmers I spoke with would thank you for your interest in this policy issue. Several of the advocates I talked with focused on heirs' property as one of the major ongoing mechanisms of black land loss, and I have watched as efforts such as the 2018 Farm Bill and your legislation have become some of the first meaningful federal

JOHN FRANCIS FICARA

actions against this aspect of dispossession in decades.

Those efforts can provide relief for the thousands of black families facing this type of land loss. I would note that my focus in the cover story is not necessarily heirs' property on its own, but a wider epidemic of discrimination, illegal economic pressures, and disparate federal funding affecting black farm families—even including those with clear, established titles to land. I would also stress that this pattern of federally funded discrimination over generations dovetails with the heirs'-property problem to strip black families of wealth even before they officially lose the title to land, and that in many cases losses due to heirs'-property claims are the end of long chains of hardship. Severing those chains of hardship is a task that will require hitherto unseen policy efforts to repair past hurts and their effects in the present. I think the forthcoming USDA study can be useful, as will additional reporting on and testimony from black landowners and their scions.

Thank you to Benjamin J. Hubbard for your kind note. I am glad you mention Edwin Markham's poem, as it came to my own mind often while I worked on this article and immersed myself for much of the past year in the stories of farmers and sharecroppers. Of the history of "immemorial infamies, perfidious wrongs, [and] immedicable woes" that have built the present, the story I document is but one, and I am grateful to have been able to tell it. I have a feeling that "The Man With the Hoe" will only grow in relevance as we truly grapple with our legacies of white supremacy, colonialism, and capitalism.

Meritocracy's Miserable Winners

The system that's widened the gap between the rich and everyone else has also turned elite life into an endless, terrible competition, Daniel Markovits argued in September.

I found your article on the price of meritocracy to be at once timely and painful. My shortcomings in the college-admissions process haunt me, and I feel like the consequences of my failure will reverberate throughout the rest of my career. I constantly feel deficient in merit.

I know that there are far worse things in this life than having failed to get into your dream college. I have never gone hungry. I grew up with two loving parents in a supportive environment with plenty of opportunities. We had more than enough money. In the end, I think it's the fact that I grew up with so much privilege that makes me all the more angry at myself for having not gotten into a better school and thereby having not earned a better job. The runway was always clear, but I botched the takeoff. As you referenced in your article, so many folks do not have the game rigged in their favor like I did.

I know that reality often falls short of expectations, but nonetheless I have continually struggled to shake off the disappointment of a future lost. I am not asking for your pity, because, as you rightly point out, the rich of this country do not deserve any tears. I just want you to know that I am miserable too.

Connor Holbert
CHICAGO, ILL.

Daniel Markovits does an excellent job of describing the effects of "meritocracy" in our society, yet misses the single most important root cause.

Nearly a century ago, hourly workers won a universal 40-hour workweek. Salaried workers are, however, free to be exploited. Over the past three or four decades, we've watched worker productivity grow, along with salaried employees' number of work hours, which in some cases completely subsume their lives. Getting ahead in the salary pool of a large employer means outworking your colleagues, which invariably involves trying to put in more hours.

Employers have reduced their employment costs by encouraging (directly or indirectly) their workers to do more than one person's worth of work. Employees aren't a bottomless source of corporate wealth, however. Efficiency falls after a certain number of work hours in a day. Decisions may not be as sharp; flaws can creep in. And companies can lose institutional knowledge when workers leave.

I submit that limiting the hours for all workers would do more to achieve the democratization of not only the workplace, but universities as well. Capping "worker productivity" in this way would force firms to hire more staff in order to fully exploit their markets. More jobs equals more opportunity, and the rest will sort itself out.

Perhaps we have to eliminate "salary" as an employment concept in the U.S. entirely and translate all wages into hourly pay, and mandate overtime for exceeding the 40-hour workweek, the only exceptions being for those in the C-suite and board members.

As an aside, I'm pretty certain that one of the drivers of companies pushing their salaried workers to do double duty has been the costs of "perks," chief among them health insurance. Some sort of national effort to control that cost—or, better yet, to decouple it from employment—would erase or at least ease that burden.

Paul Flint
BROOKLYN, N.Y.

As a libertarian it pains me to say this, but the only way to soften the meritocracy trap without destroying our economy is to enact a graduated income tax with much higher upper levels. If the federal income tax was, say, 50 percent on incomes greater than $200,000, and 90 percent on incomes greater than $500,000, no one would earn more than $500,000—only a fool would be willing to pay Uncle Sam 90 percent of their hard-earned income. The result, as in days gone by, would be that people would no longer be willing to work such long hours, opening up more opportunities for people who did not attend elite schools. There would be consequences for such actions. But more happiness would result.

Lloyd Wright
POUGHKEEPSIE, N.Y.

In his excellent article, Daniel Markovits recommends the New Deal as a democratic model for undoing the deleterious effects of economic inequality with these words: "The

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broadly shared prosperity that this regime established came, mostly, from an economy and a labor market that promoted economic equality over hierarchy—by dramatically expanding access to education, as under the GI Bill, and then placing mid-skilled, middle-class workers at the center of production."

Yet, as described in detail in Ira Katznelson's *When Affirmative Action Was White*, the GI Bill was designed to systematically deny African Americans its benefits, with tragic results for millions of Americans and for our society as a whole. If there is another New Deal, it must be applied universally to avoid pernicious consequences.

Philip Siller
NEW YORK, N.Y.

Daniel Markovits originally and persuasively argues for wealth redistribution by appealing to elites' sanity.

Is there a historical instance of the wealthy voluntarily forsaking their perceived immediate self-interest? In my overview of history, socioeconomic reform is a direct result of bottom-up social movements, not top-down political reform.

Myles J. Brawer
NEW YORK, N.Y.

Daniel Markovits is insightful and timely when he decries systemic meritocracy in our society. But the insight stops when he proposes a solution that comes out of the same meritocratic mind-set. Since the meritocratic playing field is miserable, the solution can't simply be increasing the misery by opening it up to more players. Instead we need to counteract the view that educational and professional and economic "merit" are markers of human legitimization. On a deeper level, this can be done by recognizing the innately invaluable nature of every person regardless of achievement or the apparent lack of it. Practically speaking, this would involve giving the same societal value to people who aren't considered educated or professional or wealthy as to people who apparently are.

Ted Barham
DEARBORN, MICH.

Life With Lyme

After years of being ill, Meghan O'Rourke wrote in September, she found herself with one of medicine's most bitterly contested diagnoses—a baffling disease that has pitted experts against one another and against patients.

I began reading Meghan O'Rourke's article with some trepidation. As an internist, I am familiar with the controversies she describes. I have struggled with how to approach the dichotomy between the "science" and the symptoms, and have encountered many patients who are frustrated and angry, and think they know more than I do on this topic. In today's health-care environment, where appointments are 15 minutes long for a medical history that could take an hour, there is a vicious circle of distrust and despair between doctors and patients. Ms. O'Rourke did a superb job of telling the story of Lyme disease in a way that was sensitive to the perspectives of both patients and physicians. Though it was personal and anecdotal, which is contrary to the evidence-and-epidemiology approach of the medical profession, it was very well researched, thoughtful, and evenhanded.

Aparna K. Miano, M.D.
WASHINGTON, D.C.

Meghan O'Rourke replies:

It's interesting to hear a doctor talk about the challenges of treating frustrated patients. This letter captures something simple but very important about why Lyme disease and other complex, multisystemic illnesses (including some autoimmune diseases) are so challenging for the medical system: They are hard to diagnose accurately given the tools we currently have, and it's hard to give suffering patients the attention their condition deserves when most appointments last less than 15 minutes. This has consequences beyond making patients unhappy. A lot of evidence shows that the experience *of illness actually affects patients' response to treatment. (Studies suggest, for example, that diabetes patients with "empathetic" doctors do much better than patients with nonempathetic doctors.) Since my article came out, I've heard from hundreds of suffering, and often despairing, people who felt driven away by the medical system. Meanwhile, doctors are experiencing extraordinary rates of burnout. Clearly we need more science around tick-borne illness, but we also need a system that gives doctors the time and support necessary to treat the entire range of complex illnesses that still exist at the edge of medical understanding.*

Why Are Washing Machines Learning to Play the Harp?

Appliance makers believe more and better chimes, alerts, and jingles make for happier customers, Laura Bliss wrote in September. Are they right?

I read with growing horror the story about appliance manufacturers' drive to invade my house with appalling jingles they think are soothing. The jingles are not soothing. They are extremely annoying.

Bryan Gangwere
FLOWER MOUND, TEXAS

I have been wondering who designed the new sounds that seem calculated to make Chase Bank ATMs sound confiding and lovable. On the one hand, they're a refreshing change from the shrill, tinny, and irritating electronic bleeps emitted by most ATMs and card-swipe portals. On the other hand, the fact that they get to me makes me feel wary and manipulated. How can I regard a bank as endearing?

Annie Gottlieb
NEW YORK, N.Y.

Laura Bliss replies:

Few readers seemed to wholeheartedly appreciate the musical tones emanating from machines in their daily lives, although I did hear a fair amount of the ambivalence that Annie Gottlieb describes.

Relatedly, I was pointed to a blog post by Robin James, a philosophy professor at the University of North Carolina at Charlotte, theorizing that household appliances' friendly but insistent jingles impelling us to keep working stem from the ugly gender politics of domestic labor. James writes: "Re-coding the bad feelings we have about oppression into good feelings about brands, these jaunty melodies take on yet another dimension of reproductive labor we disproportionately shove off on women, especially women of color." So, yeah, not everyone's singing their praises.

To contribute to The Conversation, please email letters@theatlantic.com. Include your full name, city, and state.

RICKY KRESSLEIN/GETTY

EMPOWERED WOMEN
POWER ECONOMIES

“My dream would be to have a [company] in my community, an enterprise of women who are taking care of alpacas and making the products.”

A single mom who also cares for her aging parents, María Humbelina Miñarcaja jumped on the opportunity to raise alpacas and hone her spinning, weaving and knitting skills. As a leader in the new women-led alpaca fiber enterprise Miñarcaja is building a better future for herself and her family.

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It turns out that cows are especially interested in—and affectionate toward—particular other cows. A kind of sisterhood is thought to feature in their social lives. — Rebecca Giggs, p. 26

DISPATCHES

IDEAS & PROVOCATIONS

NOVEMBER 2019

• SOCIETY

WHY DON'T I SEE YOU ANYMORE?

Our unpredictable and overburdened schedules are taking a dire toll on American society.

BY JUDITH SHULEVITZ

JUST UNDER A CENTURY AGO, the Soviet Union embarked on one of the strangest attempts to reshape the common calendar that has ever been undertaken. As Joseph Stalin raced to turn an agricultural backwater into an industrialized nation, his government downsized the week from seven to five days. Saturday and Sunday were abolished.

In place of the weekend, a new system of respite was introduced in 1929. The government divided workers into five groups, and assigned each to a different

Illustration by EDMON DE HARO

day off. On any given day, four-fifths of the proletariat would show up to their factories and work while the other fifth rested. Each laborer received a colored slip of paper—yellow, orange, red, purple, or green—that signified his or her group. The staggered schedule was known as *nepreryvka*, or the "continuous workweek," since production never stopped.

Socially, the *nepreryvka* was a disaster. People had no time to see friends; instead they associated by color: purple people with purple people, orange with orange, and so on. Managers were supposed to assign husbands and wives to the same color but rarely did. The Communist Party saw these dislocations as a feature, not a bug, of the new system. The Party wanted to undermine the family, that bourgeois institution. "Lenin's widow, in good Marxist fashion, regarded Sunday family reunions as a good enough reason to abolish that day," according to E. G. Richards, the author of *Mapping Time*, a history of the calendar.

Workers, however, were upset. One of them openly complained to *Pravda*: "What are we to do at home if the wife is in the factory, the children in school, and no one can come to see us? What is left but to go to the public tea room? What kind of life is that—when holidays come in shifts and not for all workers together? That's no holiday, if you have to celebrate by yourself."

The staggered workweek didn't last long. Officials worried that it affected attendance at workers' meetings, which were essential for a Marxist education. In 1931, Stalin declared that the *nepreryvka* had been implemented "too hastily," leading to a "depersonalized labor process" and the mass breakage of overtaxed machines. That year, the government added a day of collective rest. The seven-day week was not restored until 1940.

Experiments like this one have given social engineering a bad name. Nevertheless, Americans are imposing a kind of *nepreryvka* on ourselves—not because a Communist tyrant thinks it's a good idea but because the contemporary economy demands it. The hours in which we work, rest, and socialize are becoming ever more desynchronized.

Whereas we once shared the same temporal rhythms—five days on, two days off, federal holidays, thank-God-it's-Fridays—our weeks are now shaped by the unpredictable dictates of our employers. Nearly a fifth of Americans hold jobs with nonstandard or variable hours. They may work seasonally, on rotating shifts, or in the gig economy driving for Uber or delivering for Postmates. Meanwhile, more people on the upper end of the pay scale are working long hours. Combine the people who have unpredictable workweeks with those who have prolonged ones, and you get a good third of the American labor force.

The personalization of time may seem like a petty concern, and indeed some people consider it liberating to set their own hours or spend their "free" time reaching for the brass ring. But the consequences could be debilitating for the U.S. in the same way they once were for the U.S.S.R. A calendar is more than the organization of days and months. It's the blueprint for a shared life.

Even a far-off event can be a source of anxiety when you don't know what your schedule will be next week, let alone next month.

Remember the old 9-to-5, five-day-a-week grind? If you're in your 30s or younger, maybe not. Maybe you watched reruns of *Leave It to Beaver* and saw Ward Cleaver come home at the same time every evening. Today few of us have workdays nearly so consistent. On the lower end of the labor market, standing ready to serve has become virtually a prerequisite for employment. A 2018 review of the retail sector called the "Stable Scheduling Study" found that 80 percent of American workers paid by the hour have fluctuating schedules. Many employers now schedule hours using algorithms to calculate exactly how many sets of hands are required at a given time of day—a process known as on-demand scheduling. The algorithms are designed to keep labor costs down, but they also rob workers of set schedules.

The inability to plan even a week into the future exacts a heavy toll. For her recent book, *On the Clock*, the journalist Emily Guendelsberger took jobs at an Amazon warehouse, a call center, and a McDonald's. All three companies demanded schedule flexibility—on their terms. The most explicit about the arrangement was Amazon. While filling out an online application, Guendelsberger found the following advisory: "Working nights, weekends, and holidays may be required … Overtime is often required (sometimes on very short notice) … Work schedules are subject to change without notice."

One Amazon co-worker told Guendelsberger that she barely saw her husband anymore. He worked the night shift as a school custodian and came home to sleep an hour before she woke up to go to work. "We have Sunday if I'm not working mandatory overtime, and occasionally we have Monday morning—if I don't have to work Monday morning—to see each other, and that's pretty much it," she said.

On the other end of the labor force are the salaried high earners for whom the workday and workweek remain somewhat more predictable. But their days and weeks have grown exceedingly long. For her 2012 book, *Sleeping With Your Smartphone*, the Harvard Business School professor Leslie Perlow conducted a survey of 1,600 managers and professionals. Ninety-two percent reported putting in 50 or more hours of work a week, and a third of those logged 65 hours or more. And, she adds, "that doesn't include the twenty to twenty-five hours per week most of them reported monitoring their work while not actually working." In her 2016 book, *Finding Time: The Economics of Work-Life Conflict*, the economist Heather Boushey described the predicament in stark terms: "Professionals devote most of their waking hours to their careers."

When so many people have long or unreliable work hours, or worse, long *and* unreliable work hours, the effects ripple far and wide. Families pay the steepest price. Erratic hours can push parents—usually mothers—out of the labor force. A body of research suggests that children whose parents work odd or long hours are more likely to evince behavioral or

cognitive problems, or be obese. Even parents who can afford nannies or extended day care are hard-pressed to provide thoughtful attention to their kids when work keeps them at their desks well past the dinner hour.

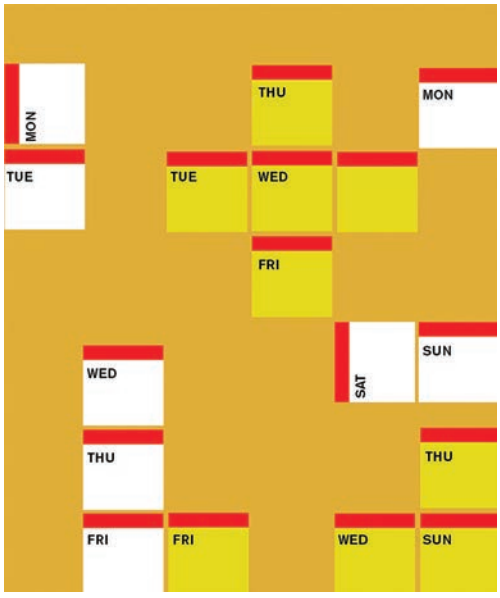
To make the most efficient use of their scant time at home, some parents have resorted to using the same enterprise software that organizes their office lives: Trello for chores, to-do lists, and homework; Slack to communicate with the kids or even to summon them to dinner. Anyone raising a teenager knows that nagging is more effective electronically than face-to-face.

Keeping up a social life with unreliable hours is no easy feat, either. My friends and I now resort to scheduling programs such as Doodle to plan group dinners. Committing to a far-off event—a wedding, a quinceañera—can be a source of anxiety when you don't know what your schedule will be next week, let alone next month. Forty percent of hourly employees get no more than seven days' notice about their upcoming schedules; 28 percent get three days or fewer.

What makes the changing cadences of labor most *nepreryvka*-like, however, is that they divide us not just at the micro level, within families and friend groups, but at the macro level, as a polity. Staggered and marathon work hours arguably make the nation materially richer—economists debate the point—but they certainly deprive us of what the late Supreme Court Justice Felix Frankfurter described as a "cultural asset of importance": an "atmosphere of entire community repose."

I know this dates me, but I'm nostalgic for that atmosphere of repose—the extended family dinners, the spontaneous outings, the neighborly visits. We haven't completely lost these shared hours, of course. Time-use studies show that weekends continue to allow more socializing, civic activity, and religious worship than weekdays do. But Sundays are no longer a day of forced noncommerce—everything's open—or nonproductivity. Even if you aren't asked to pull a weekend shift, work intrudes upon those once-sacred hours. The previous week's unfinished business beckons when you open your laptop; urgent emails from a colleague await you in your inbox. A low-level sense of guilt attaches to those stretches of time not spent working.

As for the children, they're not off building forts; they're padding their college applications with extracurricular activities or playing organized sports. A soccer game ought to impose an ethos of not working on a parent, and offer a chance to chat with neighbors and friends. Lately, however, I've been seeing more adults checking their email on the sidelines.



Is there any hope for clawing back some shared time off? In *Sleeping With Your Smartphone*, Perlow describes how she developed a solution to white-collar peonage at Boston Consulting Group. She called her strategy "PTO": predictable time off. It didn't seem like a big deal. Teams would pull together to arrange one weeknight off per member per week. Not at the same time—clients still expected someone to be on call at all hours—but on different nights.

PTO turned out to be surprisingly complicated. Schedules had to be repeatedly adjusted to ensure that all evenings were covered. Not everyone liked the new system. "Bob," for instance, didn't want to take his night off while he was on the road; he would have preferred to spend that time with his family.

Still, Perlow and Boston Consulting Group deemed PTO a success, and it has since been adopted elsewhere. Drill down on why, though, and the answer does more to confirm the problem than suggest a solution. PTO made people meet more frequently and talk frankly to one another. They had to explain why a particular night wouldn't work for them. They bonded. It was the together time, not the nights off, that made employees happier and more effective.

The "opt out" movement comes at the problem from a different angle. Its proponents call for people to reject the cult of busyness, in part by rejecting the notion that, as Jenny Odell writes in *How to Do Nothing*, our every minute should be "captured, optimized, or appropriated as a financial resource by the technologies we use daily." But it's one thing to delete Instagram from your phone so you can be more present for your wife and kids. It's another to decide unilaterally that your boss's emails can wait until morning.

And for those on the lower rungs of the economy, there's no ignoring the scheduling algorithm—at least as long as the algorithm is king. In her 2014 book, *The Good Jobs Strategy*, the MIT business professor Zeynep Ton argues that on-demand scheduling may prove to have higher costs than benefits: Companies, especially ones that depend on customer service, lose money and market share when they desynchronize their labor force. She offers the example of Home Depot. When it opened in 1979, the company invested in full-time workers with home-improvement expertise. It quickly became the market leader. But then Home Depot began losing money, largely because of inefficient operations. In 2000, a new CEO imposed discipline in the company. However, seeking to cut labor costs, he also imposed "flexible" schedules. Home Depot started hiring more part-timers, most of them less knowledgeable than the full-timers. Customers couldn't find anyone to help them navigate the store, and checkout lines became punishingly long. By 2005, Home Depot had plunged below beleaguered Kmart on the American Customer Satisfaction Index.

Illustration by SIMON MONTAG

The Gap, IKEA, and a handful of other retailers have been trying to figure out how to mitigate the damage of inconsistent shifts. They are testing fixes such as making start and end times more consistent and giving no less than two weeks' notice of upcoming schedules, among other things.

But it's naive to think that policies like this will become the norm. Wall Street demands improved quarterly earnings and encourages the kind of short-term thinking that drives executives to cut their most expensive line item: labor. If we want to alter the cadences of collective time, we have to act collectively, an effort that is itself undermined by the American *nepreryvka*. A presidential-campaign field organizer in a caucus state told me she can't get low-income workers to commit to coming to meetings or rallies, let alone a time-consuming caucus, because they don't know their schedules in advance.

Reform is possible, however. In Seattle, New York City, and San Francisco, "predictive scheduling" laws (also called "fair workweek" laws) require employers to give employees adequate notice of their schedules and to pay employees a penalty if they don't.

Then there's "right to disconnect" legislation, which mandates that employers negotiate a specific period when workers don't have to answer emails or texts off the clock. France and Italy have passed such laws.

It's a cliché among political philosophers that if you want to create the conditions for tyranny, you sever the bonds of intimate relationships and local community. "Totalitarian movements are mass organizations of atomized, isolated individuals," Hannah Arendt famously wrote in *The Origins of Totalitarianism*. She focused on the role of terror in breaking down social and family ties in Nazi Germany and the Soviet Union under Stalin. But we don't need a secret police to turn us into atomized, isolated souls. All it takes is for us to stand by while unbridled capitalism rips apart the temporal preserves that used to let us cultivate the seeds of civil society and nurture the sadly fragile shoots of affection, affinity, and solidarity. *A*

Judith Shulevitz is the author of The Sabbath World: Glimpses of a Different Order of Time.

• STUDY OF STUDIES

All Good Things …

Why we hate endings—and need them

BY BEN HEALY

DESPITE OUR commitment to 24/7 news, unlimited-data plans, and bottomless mimosas, nothing lasts forever. So how should we handle life's endings and last hurrahs? Should we rage against the dying of the light, or be content to let things go?

Approaching an end can have a focusing effect, leading people to summon strength for a final push. A study of more than 3,000 professional soccer games found that 56 percent of goals were tallied in the second half, and almost 23 percent came in the final 15 minutes of a 90-minute match. (Of course, the goal scorers can't take all the credit, as defenders' tired legs also play a part. Endings and exhaustion go hand in hand.) **[1]** Deadlines have a similar effect on deal-making. A 1988 analysis of several bargaining experiments found that 41 percent of deals were struck in the final 30 seconds of the allotted time, and most of those were resolved with five seconds or less to spare. **[2]**

How well people navigate the end of an era depends partly on what coping mechanisms they deploy. Detachment is one approach: Among homeowners undergoing foreclosure, people early in the process expressed deep emotion at what they saw as the loss of their "home"—yet by the time it passed out of their hands, they tended to view it as merely a "house." **[3]** Mourning is another approach, even when the stakes aren't life or death: Fans of shows such as *Entourage* and *The Sopranos* exhibited the same bereavement patterns in response to their show's end as people grieving a loved one. (An exception was a subset of viewers who angrily wrote off shows' final seasons as failures.) **[4]**

Distraught fans should keep in mind that even endings we resist may be better than expected. For example, while breakups tend to cause stress, the end of a relationship can also lead to a feeling of significant personal growth, particularly among women. **[5]** The same goes for anticipation of the ending that awaits us all: A study analyzing blog posts by terminally ill patients and the last words of death-row inmates found they used language that was significantly more positive than did people who were asked to *imagine* the words they would use if facing death. **[6]** Another study, this one focusing on end-of-life professionals such as hospice workers, found that firsthand exposure to death left these people more likely to "live in the present, cultivate a spiritual life and reflect deeply on the continuity of life." **[7]** People who had near-death experiences, meanwhile, reported an increased sense of spiritual well-being; the more serious the brush with death, the deeper that sense. **[8]**

So perspective may be the X factor that keeps the unthinkable from being the unbearable. Fortunately, astrophysicists predict that the most definitive ending imaginable—the point at which matter will essentially cease to exist—is still about 10^{100} years off, leaving plenty of time to reframe that looming end as a growth opportunity. **[9]** Unfortunately, as it goes for universes, so it goes for fun little columns about human behavior, and that's why it's my sad duty to announce that this is the final Study of Studies. But just think of the horizons opened by its conclusion. And thanks for reading. *A*

THE STUDIES:

[1] W. W. S. Njororai, "Timing of Goals Scored in Selected European and South American Soccer Leagues, FIFA and UEFA Tournaments and the Critical Phases of a Match" (*International Journal of Sports Science*, Nov./Dec. 2014)

[2] Roth et al., "The Deadline Effect in Bargaining" (*American Economic Review*, Feb. 1988)

[3] Barbara L. Gross, "The Experience of Home Foreclosure" (*European Advances in Consumer Research*, 2008)

[4] Russell and Schau, "When Narrative Brands End" (*Journal of Consumer Research*, April 2014)

[5] Tashiro and Frazier, "'I'll Never Be in a Relationship Like That Again'" (*Personal Relationships*, March 2003)

[6] Goranson et al., "Dying Is Unexpectedly Positive" (*Psychological Science*, July 2017)

[7] Shane Sinclair, "Impact of Death and Dying on the Personal Lives and Practices of Palliative and Hospice Care Professionals" (*Canadian Medical Association Journal*, Feb. 2011)

[8] Khanna and Greyson, "Near-Death Experiences and Spiritual Well-Being" (*Journal of Religion and Health*, Dec. 2014)

[9] Adams and Laughlin, "A Dying Universe" (*Review of Modern Physics*, April 1997)

Illustration by LUCI GUTIÉRREZ

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• SKETCH

THE BARD OF BEDTIME

Sandra Boynton's picture books have sold 75 million copies, captivating children and the adults who read to them. What's the secret to her popularity?

BY IAN BOGOST

I KNEW I WAS in the right place when I spotted cartoon-fowl statuaries flanking the gate of a rural drive. Bright, fat beaks and combs bulged out from stoic, teardrop bodies. These were unmistakably Sandra Boynton chickens.

Since the early 1970s, Boynton has herded her animals onto greeting cards, calendars, and songbooks. But she is best known for her board books, written for the youngest children and the parents who read aloud to them. She has published more than 60 of them, including the perennial best sellers *Pajama Time!*; *Moo, Baa, La La La!*; *Barnyard Dance!*; and *The Going to Bed Book*. Together they have sold some 75 million copies. Two more titles joined her menagerie this year, *Dinosnores* and *Silly Lullaby*. They bring Boynton's usual oddball joy—snoring reptiles and owls that moo—to a new succession of bedtimes.

"Everyone needs chicken sentries," Boynton explained when I arrived at her studio, a red barn that sits behind a centuries-old farmhouse in western Connecticut's Berkshires. With her publishing royalties, she has outfitted her real farm with the storybook trappings of her fictional ones. The barn's two-and-a-half-story interior looks less like Boynton's studio than Boynton's Country Store. On display are books, cardboard stand-ups, records, hundreds of critter-emblazoned greeting cards, and stuffed animals (an enormous, fuzzy pig fills a rustic dining chair).

Boynton reached for a copy of *Blue Moo*, her 2008 Grammy-nominated album of kids' songs, which includes B. B. King singing the Boynton-composed "One Shoe Blues." While working on the accompanying picture book, she started acquiring memorabilia from the 1950s as design references, and she didn't stop after the album was released. What was once an unused conference room on one side of the barn is now a whole diner, complete with vinyl counter stools, red-cushioned booths, and a working pay phone. The rest of the decor, from the fridge to the ceiling to the colander of fresh cherries, all matches the sea green of *Blue Moo*'s cover. "Before, it was kind of a depressing room," she said. "This is no longer a depressing room." Here, nestled among fixtures that recall her own childhood, Boynton cooks up stories for kids who are just beginning theirs.

"WHERE DID YOU ever get such a crazy, scary idea for a book?" That's the question the author and illustrator Maurice Sendak set out to answer in his 1964 Caldecott Medal acceptance speech, for *Where the Wild Things Are*. Children, he observed, have dark emotions and anxieties, just as adults do. Appealing to their disquiet, Sendak concluded, "gives my work whatever truth and passion it might have."

Eight years later, as a Yale sophomore, Boynton applied to a children's-literature seminar that Sendak taught there. A portfolio was required; she submitted a bestiary she had written and drawn in high school. She was accepted, so she figured Sendak must have liked it. Not so much. When the two met, Sendak dismissed the portfolio as "greeting-card art." But that only emboldened her. "It occurred to me that making and selling my own greeting cards would be a much better summer job than the waitressing I'd done unhappily the previous summer," she told me.

And that's how it started. The animal characters that define Boynton's oeuvre—birds, sheep, chickens, hippos—first made their appearance on cards, which she started selling to Recycled Paper Greetings in 1974. The cards, though cute, were wry instead of mawkish. "Things are getting worse," an unnerved-looking hippo says on one. "Please send chocolate." They proved wildly popular, and eventually Recycled Paper printed anything Boynton sent along.

Two years later, as a graduate student at Yale, Boynton made a children's picture book called *Hippos Go Berserk!* As we were talking, she opened an archival box dated 1976 and pulled out the original—a pile of thick cards, painted sparsely in primary colors. "That's what I knew to draw on," Boynton said of the boards she used long before board books became ubiquitous. When a traditional publisher rejected the title, Recycled Paper picked it up. Since

Like Fred Rogers, Boynton treats children, even very young ones, with deep respect.

then, *Hippos Go Berserk!* has sold more than 2 million copies.

It may seem like a simple counting book: "One hippo, all alone, calls two hippos on the phone." But it also channels Sendak's sense of terror. Hippos pile into a house—overdressed, with a guest, in a sack, through the back. Chaos builds as the number of hippos on each page climbs, then it dissipates as the book counts back to one. It ends on an unexpectedly tragic note: "One hippo, alone once more, misses the other forty-four."

Boynton's books oscillate between order and disarray, wisdom and nonsense. *The Going to Bed Book*, a gentle lullaby about nightly routines (not unlike parents reading stories at bedtime), somehow makes these rituals seem at once benign and oppressive, before suggesting an absurdist reprieve: "And when the moon is on the rise, they all go up to exercise." Like Fred Rogers, Boynton treats children, even very young ones, with deep respect. Like Sendak (whom she calls an "unfailingly and affectionately supportive" mentor), she accepts that kids already encounter the distress of adulthood. But Boynton also makes a space for children and adults to occupy together. Take this line about a throng of Halloween chickens: "One heard a robot intone: Trick or treat." Suzanne Rafer, Boynton's editor of 38 years at Workman Publishing—one of two publishers that print Boynton's books—passed on sales agents' objections to the verb *intone*: "We're reading this to a zero-year-old." Boynton's reply: "All language is new to a kid. Why not invite them into a vocabulary that's special from the beginning?"

Boynton's books work best when they address adults and children together. In *But Not the Hippopotamus*, the title character does not partake in other animals' activities: "A hog and a frog cavort in a bog. But not the hippopotamus." At the end, the group invites her to join and she agrees: "But YES the hippopotamus!" Joy and comfort seem assured. Yet, just then, on the final page: "But not the armadillo." Like all good literature, it leaves interpretation to the reader.

The ambiguity disturbs some parents. *My child is very upset*, they complain. *He wants to know what happened*. "The armadillo is fine," Boynton always reassures them. For years, readers begged for a follow-up that would resolve the matter. Last year, she finally gave in and published *But Not the Armadillo*. After pages of gratifying, mostly solitary activities—napping, strolling, picking cranberries—the book invokes the earlier story's ending: "A happy hippo dashes by. She wants to run and play. But not the armadillo. No. He goes the other way." Don't sit out if you want to join in—that's the hippo's lesson. But equally valuable is the armadillo's: You don't have to take part if you don't want to. It's a profound message for a parent, let alone a toddler. As Jon Anderson, the president and publisher of Simon & Schuster Children's Publishing, put it to me: "There's something almost Samuel Beckett about it."

I HAD TRAVELED to Boynton's studio to find out how she makes a board book. She took me upstairs, where we perched on stools in front of her computer, whose desktop featured a phalanx of pop-eyed chickens against a black backdrop.

She opened a folder of Word files containing the text for *Dinosnores*. She had set up the book's 11 spreads on a single page, each numbered, like stanzas of poetry or song lyrics. Most of Boynton's work is bite-size: A greeting card is an image and a line of text; a book is a dozen of them. That makes every element crucial.

Boynton obsesses over details. She pointed to the edges of a few board books nearby. They looked distinctly orange next to the white ones. "China," she said disdainfully. Whenever possible, instead of printing offshore, she insists on using Terry Ortolani, who runs the only board-book printer left in the United States. He's developed his own methods, including steps to ensure the thick pages don't crack when folded and scored during the production process. But most of all, after 25 years of collaboration, he knows how to meet Boynton's expectations.

She tends to get her way, and everyone who works with Boynton says that's because she's right, not because she's truculent. The translator for her Spanish editions wanted *baile* for "dance" in *Barnyard Dance!*, but Boynton didn't like it: "*Danza* sounds better." It's true; the lumbering *D* and the brusque *Z* better suit a square dance for livestock. They didn't

Photograph by TIMOTHY SEAN O'CONNELL

get past the title—Boynton fired the *baile* guy and did the translations herself.

She has also completely redrawn many of her books, in some cases more than once. In part, this is because technological changes have allowed her to sharpen the thin outlines around her cows and pigs. (Today, she draws both on paper and on her computer, where she composes her work in Photoshop.) But mostly, Boynton wanted her characters "to look the way they should look." A green bathing suit switched to purple. A textured paint style became more solid. Most readers wouldn't notice the changes, but they foster longevity. "It kind of blew my mind how she has this ability to maintain the original look yet give them a freshness that makes them pop anew," Anderson told me.

Small-statured, with an oval face and blond hair pulled back, Boynton typically works alone, with some help from her four grown children and her songwriting partner, all of whom live nearby. Though her work has broad appeal, she derives inspiration from specifics. "I think one of the reasons my cards worked is I didn't ask, 'What does a daughter want to send to a mom on Mother's Day?,' and instead said, 'What do *I* want to send to my mom on Mother's Day?' 'What does my friend Jane want to send her mom on Mother's Day?'" The *Dinosnores* characters are no less idiosyncratic. They were once a set of bedsheets Boynton printed 20 years ago; she rediscovered them after looking for a pillowcase and remembered that her son Devin had loved them. "And I went, 'Oh my goodness, I should make this a book.'"

Sendak was adamant, Boynton told me, that a picture book's art should do much of the story's work. "The writing," she said, "should be spare and efficient and evocative." This is easier said than done, of course. One day last October, she struggled through six drafts of *Dinosnores*. She'd written down "HONK SHOO," the obstreperous sound that dinosaurs make after "they all settle down in a dinosaur heap," early in the morning, but only as a notion: "And the big dinosaur / has a snore like / HONK SHOOO!" By the afternoon, three HONK SHOOOOOOs appeared alone on a spread. A fourth arrived the following morning, and it made all the difference. The incantation was excessive—annoying to say and to hear, especially at the volume the type size suggested—which was exactly the point. She made a crucial alteration later, when drawing the page: "HONK SHOOOOOO!" became "HONK SHOOOOOO," guiding the parent-reader toward her desired rhythm, a soft, inhaled snort followed by a long, breathy groan. "It's a constrained amount of space. I'm just moving pieces and words around to get it," Boynton said. "It's really like working out a puzzle."

Boynton's editors and publishers told me that the work lands on their desks essentially complete. She's less certain. "I look at these things," she wrote in an email about the *Dinosnores* drafts, "and think, *How* do I have a career?" Emails between Boynton and Rafer show that from that point on, they continue to perfect every element before sending a book to print. The two disagreed about the final page of *Dinosnores*, for example: "Thank goodness those dinosnores live far, far away," it reads. "It's got that extra syllable," Rafer told Boynton, hoping for *dinos* instead of *dinosnores*. Still, Boynton kept it in. The rhythm is "very Mozart," she told me, making the word form a quick triplet, *di-no-snores*.

Rhythmic surprises—including beats that initially seem off—pervade Boynton's work. I still trip over the first page of *Hippos Go Berserk!*: "One hippo, all alone." Trying out different options on your kids is one of the books' delights. Though joyous, early-childhood parenting is also weird and lonely, waves of affection breaking up against rocks of irritation. Teasing out the rhythm of a Boynton book offers a mental refuge from the tedium of reading to children who never tire of hearing the same story.

Boynton's books oscillate between order and disarray, wisdom and nonsense.

BOYNTON FAUNA ARE mostly barnyard or woodland creatures. Cows, pigs, chickens, dogs, cats; the occasional bear or rat or squirrel or bunny. Even the snakes are tame, more garden than jungle. So what's the deal with all the hippos? From her earliest greeting cards—"Hippo Birdie 2 Ewe"—to her most memorable board books, hippos weigh heavily on the page. "My beloved older sister Judy loved hippos from the time she was little," she said, adding that Judy, to whom she was extremely close, had died some years back of Lou Gehrig's disease. Boynton then retrieved from a nearby armchair one of her sister's old stuffed toys, a plush incarnation of J. J. Morgan, a television-celebrity basset hound from the early 1950s. The dog still wore the matted love of a childhood half a century gone; its round muzzle reminded me of Boynton's creatures.

I realized then that, apart from a wayward doe, I hadn't seen any real live animals on Boynton's farm, despite the fact that we were deep in dairy country. The surrounding landscape was stippled with brown or black-and-white cows grazing beside barns and silos; at a nearby filling station, even the bathroom wallpaper had a bovine theme. When I asked Boynton about her lack of animal company, she explained that she'd once had two dogs, but they'd died shortly after Jamie, her husband, passed away five years ago. The first had multiple myeloma, the same cancer that killed Jamie; the second, she theorizes, died from grief. "I would like to have a dog or cat around, but if it got sick it would just be too much for me," she said. "I just can't go through that again."

I was tempted to imagine that the bulbous hippos and yapping dogs on Boynton's pages somehow sublimate her grief into happiness, or her love into tribute. But before I could articulate this Hallmark idea, I realized that she would be allergic to it. Nobody escapes loss, any more than we escape delight or triumph, confusion or loneliness, waking up or going to sleep. "My characters are all pretty confused, in a very benevolent way," Boynton said. Like the parents reading her words, or the children listening to them, they are just trying to muddle through life. "I mean, my animals aren't really animals," she said. "They're humans."

Ian Bogost is a contributing writer at The Atlantic *and the Ivan Allen College Distinguished Chair in Media Studies at the Georgia Institute of Technology.*

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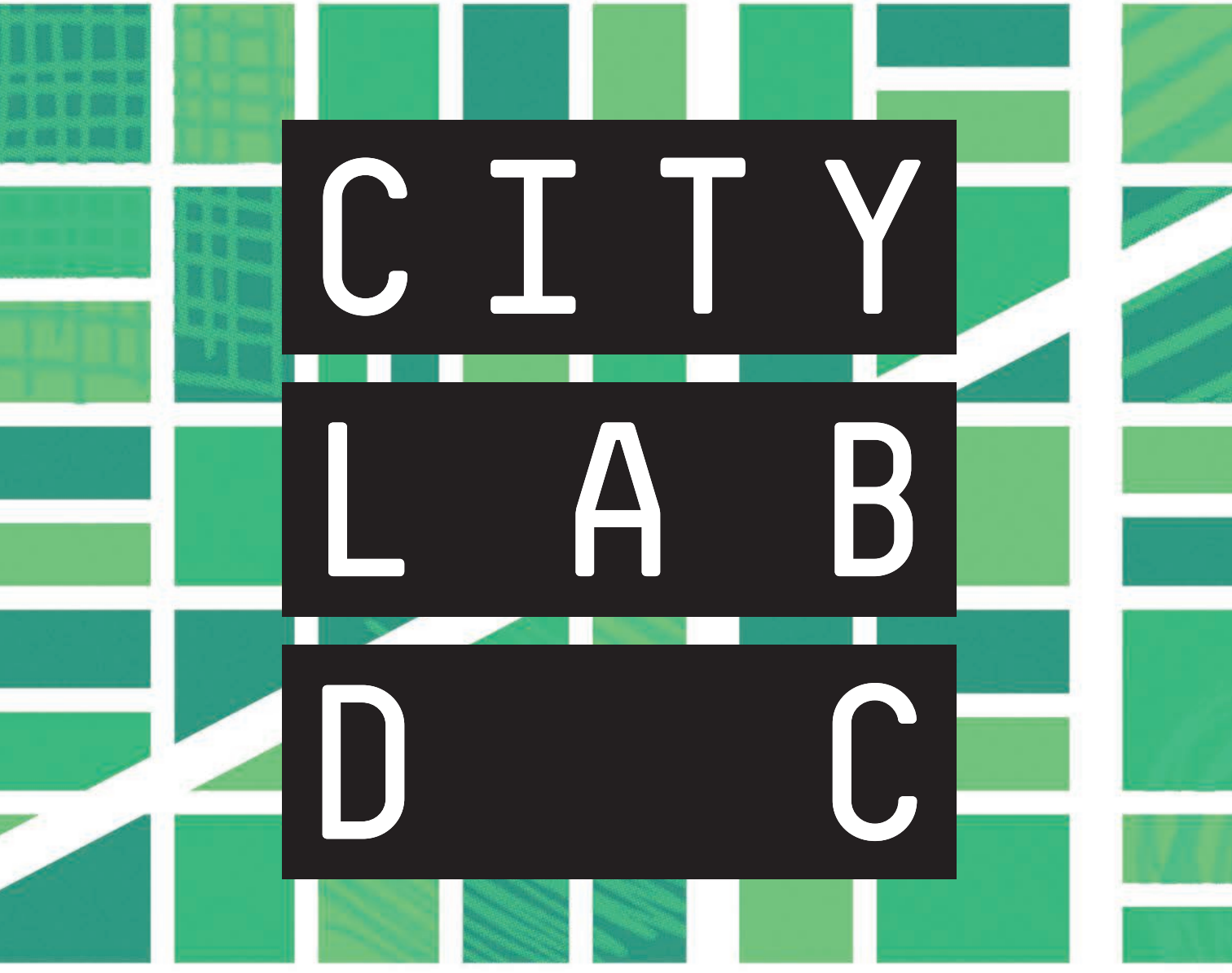

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• BUSINESS

HOW BASEBALL CARDS GOT WEIRD

A very analog hobby finds a way to thrive in the digital age.

BY ERIC MOSKOWITZ

ONE NIGHT NOT LONG AGO, with my 3-year-old son finally asleep and my wife wisely heading to bed, I settled onto the couch, beer in hand, to catch some baseball. Well, not really baseball. I opened my laptop, navigated to breakers.tv, and prepared to watch a pair of rubber-gloved hands in East Wenatchee, Washington, open an entire case of baseball cards—more than 4,000 cards in all.

If that sounds like the only activity more tedious than sitting through four hours of pitching changes and batters calling time, I shared some of your skepticism. Though I was once a middle schooler with a pack-a-day habit, whose heart raced whenever I crossed the threshold of Gilbert's Sports Nostalgia in suburban Boston, the last time I tended to my card collection, Bill Clinton was president and Barry Bonds was a speedster with some pop. I'd been under the impression that the card industry had all but died out around the time I went off to college, eclipsed in the adolescent imagination by Nintendo 64, Pokémon, AOL.

And yet, here I was, staring at the tightly framed hands of Billy Byington, the proprietor of Gargoyle Card Breaks. Byington, an affable father of seven, was about to open a case of 2019 Topps Series 2 live on streaming video. Like the other dozen or so participants in this "break," I'd purchased a stake in the cards. For $18.75, I'd secured the rights to any cards depicting members of the Oakland Athletics. I don't root for the A's, and can name only a player or two from their current roster. But I'd read that this set had a few throwback cards dedicated to Oakland old-timers I do know a bit about—Dennis Eckersley, Reggie Jackson—and the A's were priced more competitively than my hometown Red Sox were.

A case of Topps Series 2 contains 12 boxes, each made up of 24 packs, which in turn each hold 14 cards. Some breakers, I would later learn, tear open the packs and riffle through them with the speed of a blackjack dealer, pausing only to display the rarest cards. Byington is more methodical in his approach, carefully unwrapping each pack and allowing the camera to glimpse every card. This break threatened to last nearly as long as a regulation baseball game.

As he started pulling individual cards from the packs, Byington offered the kind of pleasant, meandering chatter that might fill the air during a rain delay. About an hour into the break, he turned over a card depicting Rickey Henderson, the brash Oakland leadoff man who had set stolen-base records during my childhood. "Oooh, look at that!" he exclaimed. "Boom! Nice, Eric." Not only was Henderson a player I recognized; this was a "relic" card, embedded with a shard of a bat Henderson had once used in a game. In the break's live chat room, other participants gave the rookie in their midst a round of attaboys.

Photograph by AMY LOMBARD

Up until that point, the experience of baseball-card collecting as a spectator sport could hardly have been more foreign. Having acquired the limited-edition Henderson card—or, at least, having seen Byington unwrap it—I now felt a familiar rush, one I hadn't known since the days I'd spent opening packs at Gilbert's: the thrill of the hunt.

BASEBALL-CARD COLLECTING really ought to be extinct. It's an analog hobby in a digital world, an expression of fandom in a sport whose attendance is in slow decline and whose cultural relevance is in free fall. But as my experience in Billy Byington's break suggests, the hobby has not only persisted; it's found effective, if peculiar, methods of adapting to an inhospitable environment.

The story of the baseball-card market is a story of scarcity. Before the 1970s, varying prices for individual baseball cards were virtually unheard-of. Vintage cards were traded through the mail by completist collectors seeking to round out a set. In the late '60s, the 1952 Topps Mickey Mantle listed for about a dollar—the going rate for *any* card from the sixth series of 1952 Topps. It was only in the '70s, as Baby Boomers sought out favorite cards from their youth, that certain stars began to soar in value.

As kids, Boomers had treated baseball cards like what they were—playthings, not museum pieces. They fondled them and flipped them and stuck them between the spokes of their bicycles—then went off to college and lost shoeboxes stuffed with cards to flooded basements and spring cleaning. Later, when grown Boomers returned to their childhood hobby, ardent demand met limited supply. By the end of the '70s, that same '52 Mantle approached $1,000 in value.

By the '80s, blue-chip cards were outperforming the S&P 500 and collecting had transformed from a sleepy novelty into a billion-dollar industry. In 1991, approximately 18 million people in the United States bought at least one newly issued pack, spending $2 billion to acquire nearly 21 billion baseball and other sports cards. A 1990 market study found that 77 percent of collectors were drawn to cards partly or fully because they considered them a "good investment."

Then the bottom fell out. In their eagerness to put new product in front of Boomers and their kids, manufacturers had flooded the market with cardboard. Collectors bought up new cards and squirreled them away. Nothing like the scarcity of the vintage market would attach to those billions of new cards.

The card companies realized they'd grown greedy. In 1993, *The Wall Street Journal* reported that insiders at Topps had sold off massive quantities of shares the prior year, right before the company posted its first quarterly loss in more than a decade. One industry observer told the *Journal* that oversupply—too many competing sets; large print runs—had "choked the goose that laid the golden eggs." The cards of Hall of Famers from the '60s and earlier retained their value, but new product was rendered all but worthless by the late '90s.

Yet even as the market was tanking, efforts were afoot to save it. Scarcity, it turned out, could be engineered. The value of a card had always been determined, in part, by its condition. All 1952

• ANIMAL KINGDOM

Bovine Friends Forever

Cows have specific platonic companions that they prefer over others.

BY REBECCA GIGGS

A COW IS a beast bred for uniformity. Whether black-and-white Holsteins or ginger-colored Jerseys, the marvel of the herd is that such unvaried selfsameness has been coaxed, over time, out of bovine diversity. Identical cows lift up identical, dozy eyes. Jaws slide, muffled by fodder, chewing cud. A handful of breeds dominates the beef, dairy, and leather industries the world over. Cattle are "a human product like rayon," Annie Dillard once wrote, encountering steers in Virginia. "They're like a field of shoes." People manufacture them. In the past 40 years alone, agricultural scientists seeking to increase milk production have altered at least 23 percent of the Holstein's genome.

Those of us who readily mistake one cow for another may be surprised to learn that these animals not only recognize one another as individuals, but have friends they prefer. Indeed, it turns out that cows are especially interested in—and affectionate toward—particular other cows. A kind of sisterhood is thought to feature in their social lives.

What is friendship, in the case of a cow? For decades, behavioral studies of livestock have tended to focus on aggression, because fighting between animals can result in physical injuries and economic loss. Bovine companionship, a less conspicuous dynamic, long went underrecorded—at least as a subject of scientific inquiry. As herd sizes have increased and greater numbers of cows have been subjected to intensive stall-feeding, the incentives to understand cow stress, and cow resilience, have grown.

Cow friendship, researchers now believe, is expressed foremost in grazing and licking. A study of a commercial herd in the United Kingdom found that, put to pasture, more than half of the animals spent time eating and resting alongside a specific individual. Separated from the larger group, cows that were paired with their favored friend maintained lower heart rates and did not stamp, toss their heads, pace, or sway as much as cows paired with individuals they'd shown no partiality toward. In short, they seemed less agitated. A different study suggested that cows were able to recognize others they knew in real life from photographs, which they then ran toward. As for licking, cows seem to lick the heads, necks, and backs of other cows for a reason similar to why chimpanzees groom each other—to bond. One set of findings, published a few years ago, showed that among Austrian Simmental cows, licking reduced bovine heart rates—though only for the receivers of licks. In Kenya, Zebu cattle lick discerningly,

Mickey Mantles were rare; one with sharp corners and crisp printing was rarer still. Throughout the '80s mania, condition had remained in the eye of the beholder—one man's *mint* was another man's *near-mint*. Late in the boom years, however, a solution to the subjectivity of condition appeared: third-party grading firms.

The first was Professional Sports Authenticator, or PSA, which launched in 1991. It offered to play the role of dispassionate arbiter: Card owners could send the company a card, and experts with jeweler's loupes would painstakingly assess its condition, encase it in a tamperproof plastic slab, and stamp a grade on it. By 1998, PSA was grading 1 million cards a year and had inspired numerous competitors.

With standardized assessments of condition in place, cards could be traded on auction sites such as eBay without fear of fakes or frauds. More important, PSA gave the market detailed information about supply. Each time it grades a card, the company logs the grade in a publicly accessible database, which has had a profound effect on pricing. For example: Of the approximately 4,000 Pete Rose rookie cards from 1963 that PSA had evaluated as of early August, only one scored PSA's top grade, Gem Mint 10. That card sold for $717,000 in 2016. The 30 that scored Mint 9, still less than 1 percent of those Roses, can be had for about $35,000 each.

Because PSA's approach to grading is so unforgiving—a pack-fresh card can fail to score the Gem Mint 10 designation if, say, it was printed slightly off-center—even cards from the boom years have seen their value restored, provided they earn that highest mark. Perhaps the most coveted card from that era is Ken Griffey Jr.'s rookie. Upper Deck printed more than 1 million of them. Of the more than 70,000 that have been graded by PSA, however, only about 5 percent are Gem Mint 10. These routinely sell for $500 on eBay—far more than the $75 a mint card would have fetched 25 years ago.

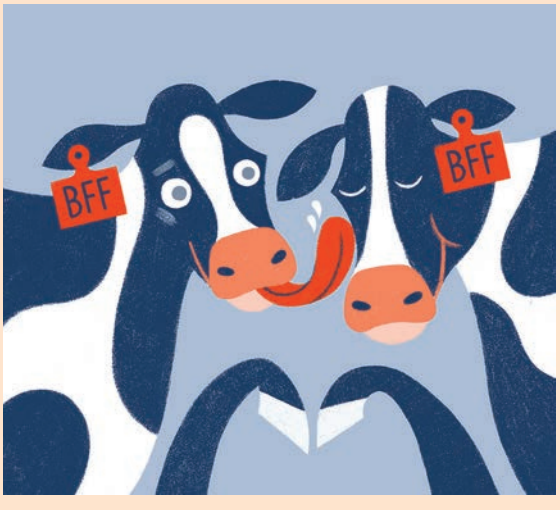
GRADING RETURNED scarcity to the market, and the card companies that survived the bust took notice. Today, the baseball-card business is driven by demand for limited-edition cards that are scarce by design. These "hit cards" typically feature an autograph, a relic, a reflective coating, a die-cut edge, or some combination thereof. Even entry-level $2 packs of Topps tease long-shot cards and carry the sort of warning found on a stock-fund prospectus: "Topps does not, in any manner, make any representations as to whether its cards will attain any future value."

Recognizing collectors' fetish for rookies, card manufacturers have also trained their attention on the stars of tomorrow. Back in 1989, all of the Ken Griffey Jr. rookie cards—from Topps, Upper Deck, Fleer, Donruss, Score, Bowman, and others—could easily fit on a couple of polypropylene pages in a three-ring binder. Last year, by contrast, the Japanese sensation Shohei Ohtani appeared on at least 2,700 *distinct* rookie cards manufactured by just two companies, Topps and Panini. That might not sound much like scarcity, but nearly all of the variants were produced in limited runs—the more limited, the more valuable the card. The rarest, most coveted Ohtani sold for $184,056 last

but without reciprocity. A long-term observational study of a herd of 31 Zebu on the Athi Plains found that most of these animals preferred to seek a familiar friend to lick, and that in a given friendship, one cow was almost always the licker, and the other cow, the lickee. However, this hierarchy did not align with the social structure of the herd: The dominant Zebu were not the most popular Zebu to lick. Nor could the researchers identify what made a Zebu likely to be licked. Still, the cows appeared to maintain consistent allies for several years.

You might assume the affectionate attachments of cows to be a side effect of domestication, but there is evidence that wild bovines, too, form platonic partnerships. Older male buffalo, for example, sometimes establish dyads with other bulls. Among these and other hoofed, herbivorous animals that congregate in very large numbers, perhaps friendship proved adaptive across generations because individuals that remained clustered—and vigilant to predators—were more likely than others to survive.

Whether or not bovine friendship is an evolutionary legacy, the American commercial milking cow's life affords little opportunity for other social contact. The majority of cows in the United States are artificially inseminated so as to bear the calves that bring on milk production (a single Holstein bull, born in 1974, was the progenitor of more than 80,000 young). And in most instances, calves are removed from their mothers soon after birth. Interactions with mates and offspring being impossible, might female friendship fill the void?



Sadly, few cows get the chance to find out. They tend to forget their friends quickly: After just two weeks apart, individuals who once preferred each other no longer display friendship's behaviors or positive effects. This is significant, because large-scale dairy farms may regroup a herd four to 12 times a year. Considering that cows without friends show evidence of distress, thwarting cow friendship would seem to contribute to cow suffering.

Surprisingly, the camaraderie between cows and people also appears to affect bovine productivity, and perhaps contentment. A 2009 survey of more than 500 British dairy farmers revealed that cows that had been given names produced 258 more liters of milk than did cows that went unnamed and thus unrecognized as individuals. A

Illustration by ESTHER AARTS

September, before his rookie season was over and only three months after being pulled from a $170 box of 24-packs of Bowman Baseball cards, a popular Topps offering. The most valuable Mike Trout rookie—a one-of-a-kind card printed before he'd ever had a Major League at-bat—sold last year for $400,000.

The market for the new hit cards has been fueled by a new generation of young buyers. At Manhattan's Midtown Sports Card Show, I met Sharon Chiong, half of a two-woman partnership called BlackJadedWolf. Chiong is a high-end broker-dealer and card-buying consultant with a network of clients around the world. Born in Manila and raised in Queens, Chiong collected basketball cards as a fan during the last boom but came to cards as a profession only after leaving the diamond trade. "I went from one luxury business to another," she told me. The day I met her, she had $1 million worth of inventory listed on eBay.

Chiong's typical buyer is a Wall Street guy in his 30s or 40s who loved cards as a kid, drifted away after the bust, and returned in recent years with money to spend. Some collect anew the cards that had filled childhood closets, only now they are seeking ones in Gem Mint 10 condition; others are drawn by the limited-edition-hit craze. Lately, Chiong has seen an uptick in slightly less affluent clients looking to invest four- or five-figure sums made from flipping other nontraditional assets, such as Bitcoin or limited-edition sneakers.

THIS YEAR'S National Sports Collectors Convention enjoyed its highest attendance since 1991, a mark of the hobby's returning strength. But card shows and card shops like Gilbert's, which once dotted the retail landscape, have all but disappeared. The hobby now competes in an entertainment landscape that includes Twitch (which has turned video gaming into a spectator sport) and DraftKings (a blend of fantasy sports and gambling).

The live break borrows elements from both, turning the hunt for high-value cards into a communal online experience—one that even a cranky old collector like myself can enjoy. I'd like to tell you that the Rickey Henderson break was my last, but the truth is I went back for more, and long after the reportorial demands of this article were satisfied.

Still, as entertaining as I came to find breaking, it exists on an almost entirely different plane from traditional collecting and quaint notions of fandom. No serious collector buys into a break hoping for a veteran star, let alone a favorite journeyman shortstop. Many breakers don't bother mailing non-hit cards to their customers; the cardboard isn't worth the time and postage. And some participants opt to not even collect their hit cards, trading them back instead for immediate credit (toward more breaks), or consigning them to the breaker to be graded and auctioned for cash.

Restoring scarcity to the market and bringing the hobby into the digital age have come at a cost: Cards are now so valued for their rarity that collectors treat them more like securities than memorabilia. This year, PWCC, a card consignee that bills itself as the world's "largest seller of investment-caliber trading cards," completed construction of a "bank style" vault in Oregon offering 24-hour armed security for your cardboard portfolio, credit lines based on your holdings, and the ability to benefit from Oregon's lack of sales tax by shipping new acquisitions straight to the vault. Safer than a shoebox, but I think I'd miss my cards too much.

Eric Moskowitz is a writer based in New York.

• VERY SHORT BOOK EXCERPT

The Deportations Last Time

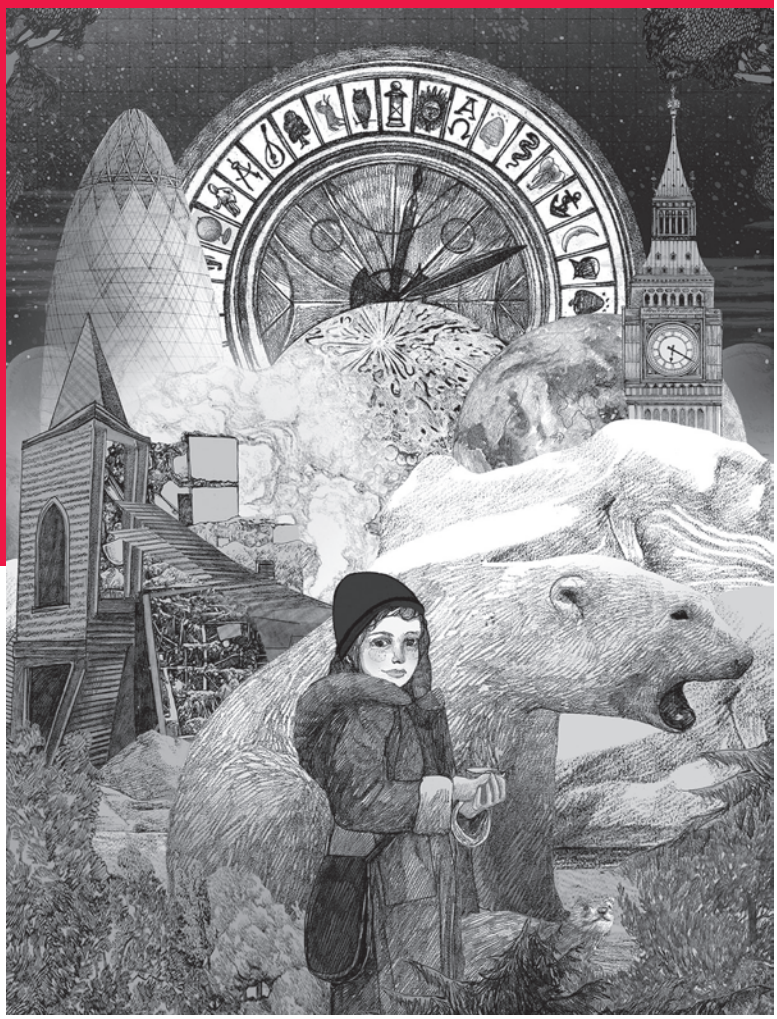
• Adapted from *America for Americans: A History of Xenophobia in the United States*, by Erika Lee, published by Basic Books in November

FOR MEXICANS in the United States, the Great Depression was uniquely devastating. In California, as growing numbers turned to social-welfare agencies, Mexicans faced mounting criticism for draining public resources that some people felt should be reserved for "Americans." Los Angeles County officials coerced Mexican and Mexican American families to repatriate en masse, threatening to cut off their aid and promising, falsely, that they could return.

The county prepared to "move the first load" of Mexicans across the border at the cost of $14.70 per adult and half that amount for children under 12. One official noted that a "lower rate" would be possible if the county transported "two hundred or more at a time." The first train left Los Angeles for Ciudad Juárez on March 23, 1931, carrying 350 repatriates. Soon after, another train took 1,150. By the end of 1933, 15 trains had sent 12,668 individuals to Mexico, many of them U.S. citizens. The repatriation program lasted for four years. The *Los Angeles Times* estimated that the "Southern California exodus" numbered 75,000, but hundreds of thousands more people were scared into leaving on their own. Historians estimate that a third of the Mexican-origin community left Los Angeles for Mexico during the Depression.

California was not alone in pursuing the systematic removal of Mexicans and Mexican Americans. Texas led the country, with 132,639 people of Mexican heritage departing the state from 1930 to 1932. And although only 3.6 percent of the Mexican population in the United States lived in Michigan, Illinois, and Indiana, more than 10 percent of the repatriates across the U.S. came from those three states alone.

Illustration by JOE McKENDRY



THE OMNIVORE

Can Atheism Animate Great Fantasy?

Philip Pullman's *His Dark Materials*, now an HBO series, puts anti-Church polemicizing ahead of plot.

BY JAMES PARKER

In a bone-picking mood, I will sometimes imagine that I have a problem with the English writer Philip Pullman, best known for the fantasy trilogy *His Dark Materials*. I don't like the flavor of his frequently expressed atheism, for example; I find it peremptory, literalistic. (The idea conveyed by the great mystic Simone Weil, that "absence is the form in which God is present," Pullman has characterized as "cheek on a colossal scale.") And I don't like his polemical sideswipes at J. R. R. Tolkien: "There isn't a character in the whole of *Lord of the Rings* who has a tenth of the complexity ... of even a fairly minor character from *Middlemarch*." In fact, now that I think about it, these are two sides of the same coin. Just as it seems like bad manners not to send the odd beam of gratitude, however agnostic, back into the heart of light and the source of your own being, so does it feel ungracious when Pullman bashes one of the prime creators of the imaginative space in which he himself—as a best-selling fantasy author—is operating.

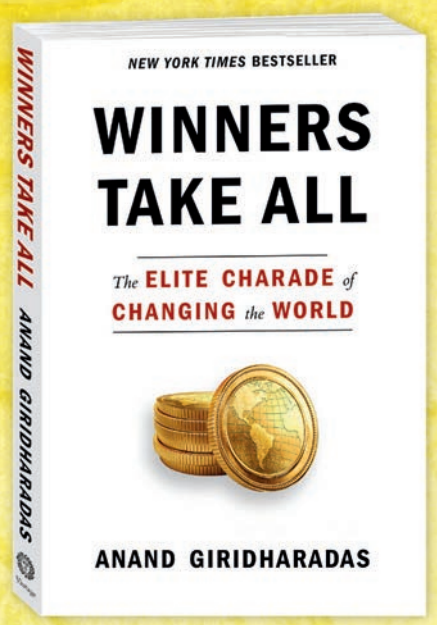
But then again: Who am I to tell Pullman how to existentially orient himself? Besides, his anti-God-ness and his anti-Tolkienism *are* of a piece—twin facets of a moral and aesthetic position that he has taken the trouble to explain to us, over the years, with some thoroughness. (I recommend *Daemon Voices*, his 2017 collection of essays and critical writing.) The panorama of Christian doctrine has no more resonance for him than Middle Earth, "a place that never existed in a past that never was." Storytelling, for Pullman, is a way into our world—not out of it. He loves folktales and fairy tales for their clarity and everydayness; he loves William Blake; he loves what we might call the Luciferian or deity-defying side of John Milton. He even, in a cranky and rather beautiful way, loves Jesus. (We'll come back to that.) But he hates the bloody Church.

You'll pick this up quite quickly when you watch the first episode of HBO's new dramatization of *His Dark Materials*. A body called the Magisterium holds a centuries-long dominion over the earthly realm. It spews doctrine; it crushes heresy; it circumscribes knowledge and inhibits discussion. Its priests are everywhere, like secret police. It's also stealing children.

This is English dissent, closer to *1984* than *The Hobbit*. An amped-up, totalitarian version of the Catholic Church is running the show, twisting your mind and smashing your dreams like Metallica's "Master of Puppets,"

Illustration by LUCILLE CLERC

BOLD, INSIGHTFUL, and POWERFUL READING



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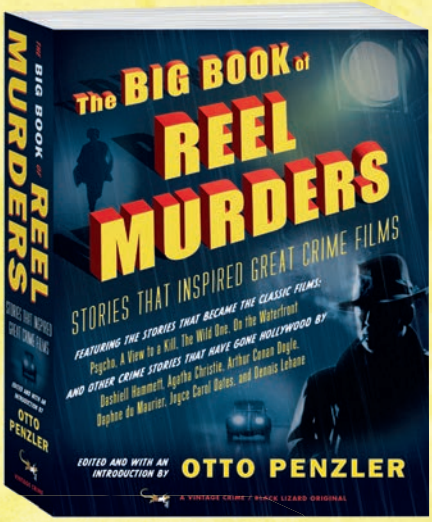
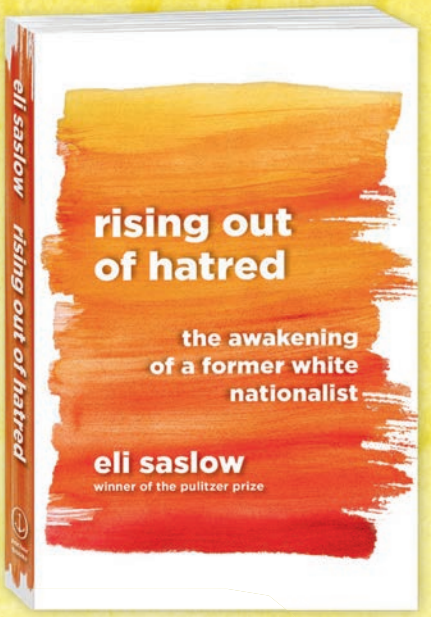


"A treasure trove....
The happiest discoveries...will be the mostly forgotten stories."
—Kirkus Reviews



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—The Washington Post

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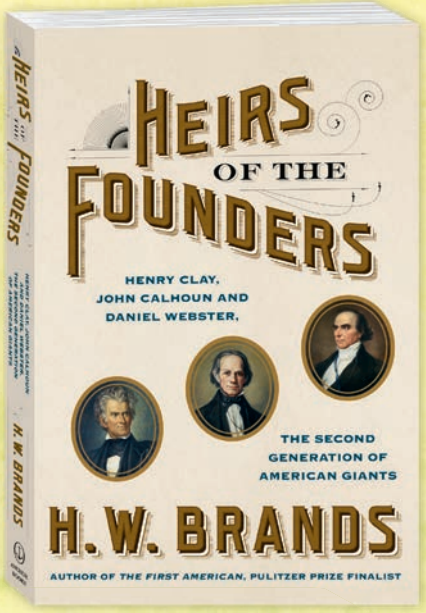

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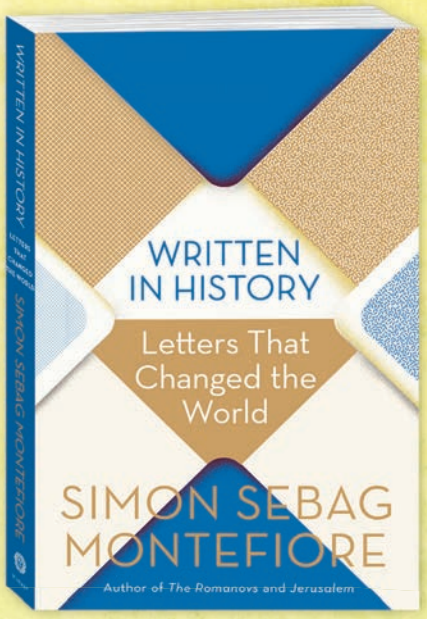

"Entertaining and enlightening....
Very personal.... All are fascinating."
—Daily Mail (London)

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and the stage is set for a good-versus-evil face-off between dogma/censorship and the heroic spirit of free inquiry.

The latter is represented by the swaggering Lord Asriel (James McAvoy), who bursts into the hushed scholarly precincts of Jordan College, Oxford, with a severed head in a cooler and some photographs that appear to suggest the existence of Dust—a mysterious, elemental substance secreted by the universe in response to human consciousness.

The Magisterium abhors the idea of Dust; Dust interferes with the top-down distribution of celestial power. "This kind of heresy is of the highest priority to the Magisterium," hisses a hollow-eyed cleric to his snaky enforcer. "I shall take it to the cardinal." "Yes, Father," says the snaky enforcer.

His Dark Materials is a kind of romance of unbelief. In the North, in the shimmering bands of the aurora borealis, reality becomes transparent; other worlds are glimpsed, worlds beyond the reach of the Magisterium. The North means knowledge, which is the story's glittering magnetic pole. Young Lyra, the foundling heroine with urchin tendencies, yearns instinctively to go there.

In Pullman's fiction, Lyra's choice is to travel, to investigate, to think freely—or to have her spirit be mangled by the ghastly devices of the Magisterium. In the real world, our world, there is of course another Church: the Church of Francis of Assisi and Dorothy Day, of radical advocacy, of finding Jesus in dispossession, at the edge of society. But this Church, which has an energy quite as emancipated and revolutionary as anything Lyra will find in the North, is not the caricature that Pullman's romance requires.

***His Dark Materials* is a work of dissent, closer to *1984* than *The Hobbit*.**

Lyra (Dafne Keen) in HBO's adaptation of Philip Pullman's His Dark Materials

The Good Man Jesus and the Scoundrel Christ, Pullman's 2010 counterfactual retelling of the events of the Gospels, is for me a more fiercely imaginative encounter with Christianity, and a fairer fight. Here's Jesus, and Jesus is okay—more than okay; he's a rebel and a trickster and an overturner, in love with the people, a proper republican in the Pullman sense of the word: instinctively fraternal and anti-institutional, spreading his rough-and-ready enlightenments across the horizontal axis.

Pullman's Jesus doesn't do miracles—no magic here—but he does change people. The paralyzed man is "so strengthened and inspired by the atmosphere Jesus had created" that he picks up his bed and walks. Jesus's words are hugely powerful, rendered by Pullman as if in a first-class idiomatic translation: "Those who look at poverty and hunger without concern, and turn away with a laugh on their lips, will be cursed; they will have plenty to mourn about; they will weep for ever."

But then there's Jesus's creepy, truth-twisting brother, Christ. Christ is in thrall to a dodgy stranger who can see into the future. Christ follows Jesus around taking notes, fiddling with the facts where necessary, laying the fake-news groundwork for what will come, what must come, after Jesus has been dispatched by the authorities: the Gospels, the Church, the whole sorry business. "When the records of this time and of Jesus's life are written," the stranger tells this lurking Christ, "your account will be of enormous value."

By the end of his ministry, Pullman's Jesus is an atheist. "Lord, if I thought you were listening," he says during the Agony in the Garden, his sweating-blood conversation with an empty heaven, "I'd pray for this above all: that any church set up in your name should remain poor, and powerless, and modest." What a lovely, biblical irony—that Pullman's Jesus-without-God should be wielding, at the last moment, the genuine dynamite of the Gospel.

Is Philip Pullman a secret believer, religious despite himself? Uh, no. No church for him, no pews and no priests. But his medium is the imagination, and the imagination is a mystery: It precedes us and it outlasts us; it surrounds our own little disc of consciousness. The imagination is holy. Pullman knows this and honors it.

"The experience of reading poetry aloud when you don't fully understand it," he wrote in an introduction to *Paradise Lost*, "is a curious and complicated one. It's like suddenly discovering that you can play the organ." This is very funny, and also very profound. That thing within us that is not of us; the itch for the clean light of the North; the self-discovering depth in the act of declaiming Milton; the strength, suddenly, to pick up your bed and walk—call it what you want. It's the Spirit.

James Parker is a staff writer at The Atlantic.

HBO

BOOKS

Bodies in Motion

Three new books explore the variety of transgender experiences.

BY STEPHANIE BURT

ASSIGNED ONE GENDER AT BIRTH, we'd felt like the other since childhood. That feeling—which had nothing to do with sexual desire—grew until life in the wrong gender seemed not worth living. So we came out as trans women or trans men to loved ones and health-care providers, who gave us the courage, the hormones, and maybe the surgery to live as who we always were, and then we were fine.

That story describes many transgender lives; parts of it describe mine. It's also a relatively easy narrative for cisgender (non-transgender) people to follow, and it's the only one that popular culture supplied until recently. Many health-care providers required an even narrower story. Until 2011, widely accepted medical standards mandated that we prove we were really trans by living in our genuine gender for three months or more without hormones. They also stipulated that we try to look conventionally masculine or feminine, and that we not identify as gay.

Such stories exclude people whose experience of being trans has shifted over their lives. (Some regret or reverse their transitions; many more do not.) They exclude people with more complicated experiences of gender and sexuality. And they exclude nonbinary people, who live as both genders, or neither, often taking the pronouns *they/them*. We can hear more stories now—not only life stories, but fiction, poems, comics, films, essays, both about trans people and by us. Some of those stories may reassure trans readers, or help cis readers accept us. Other stories aim to disrupt and unsettle the narratives we already know.

Andrea Long Chu is one of the disrupters. A doctoral candidate in comparative literature at NYU, she's a writer and critic whose work has appeared in *n+1*, *Bookforum*, and *The New York Times*. In early 2018, she published an essay called "On Liking Women" that lit up trans Twitter: The piece

Illustration by CHLOE CUSHMAN

championed the 1960s playwright and provocateur Valerie Solanas, the author of the *SCUM Manifesto* (SCUM = Society for Cutting Up Men) and the would-be assassin of Andy Warhol (she shot him in 1968). Chu hit back hard against the unitary, easy-to-understand trans story I sketched at the start of this article. She also took aim at a subset of radical feminist activists who regard trans women as interloping men.

"I have never been able to differentiate liking women from wanting to be like them," Chu confessed. She described her young self not as a child who was already a girl, but as "the scared, straight boy whose life I will never not have lived." As for the *SCUM Manifesto*, it implies—according to Chu—that trans women transition "not to 'confirm' some kind of innate gender identity, but because being a man is stupid and boring."

Coming out, announcing her womanhood, was—for her and for trans women like her (and, to be honest, like me)—an exhilarating, empowering choice, not an act of simple survival. That perspective wasn't a breath of fresh air so much as a mountaintop's worth. "Some of us ... might opt to transition," she concluded, to climb out of the cage that radical feminists take "heterosexuality to be."

How did Chu come to such views? What is it like for her to live with them? You won't find clear answers in her first book, *Females*, a short, exasperating volume that is nothing like a memoir and not much like a manifesto. It's more like a provocation, thick with what Chu herself labels "indefensible claims." "Everyone is female," Chu writes, "and everyone hates it": We are all female in this special, philosophical sense because we all "make room for the desires of another." You, too, let "someone else do your desiring for you."

Males, in Chu's terms—that is, men who behave "like men"; men who fit archetypes of masculinity—know what they want and how to get it for themselves. But expanding on what she takes to be Solanas's view, Chu argues that no one is totally independent, totally dominant, totally satisfied—which means that anyone trying to be "male" has signed up for continual failure. If femaleness means vulnerability and dependence, then we are all female, and "the patriarchal system of sexual oppression" works "to conceal" that universal truth. Men feel they have to be male, but they cannot be. They find relief from this double bind in porn, where passive, humiliated, masturbating viewers may find permission "not to have power, but to give it up."

The logical question, if you see maleness this way, is not "What makes some people trans?" but "Why would anyone want, or try, to be male?" One answer is that guys have no choice. Another answer is that masculinity feels that painful and that limiting only if you don't want it—if, like me, you'd rather be a girl. ("I hated being a man," Chu remembers, "but I thought that was just how feminism felt.") A third is to say that we might try to redefine maleness, to tell other stories about it. Trans guys might lead the way.

Coming out was an exhilarating, empowering choice, not an act of simple survival.

CYRUS GRACE DUNHAM—the younger sibling of Lena—has written a coming-out memoir, and a celebrity memoir, and a well-off young writer's memoir of a quarter-life crisis. It's also an anti-memoir, set against the idea that Cyrus, or you, or I, must believe one consistent story about our life. After months of flailing and drinking and fighting depression, Dunham has come out as nonbinary and as transmasculine. They take *they/them* pronouns in professional contexts, and do not exactly feel like a man but take *he/him* pronouns among friends: "I am appalled by how much I love it." They have also had top surgery (a double mastectomy).

A Year Without a Name can come off as recovery literature, addressing the tough row they feel they had to hoe—their sister's fame ("a toxic substance"), as well as their adventures with "alcohol, ketamine, cocaine." But we have other memoirs that work that terrain. This one's much better read as an account of generational and intellectual good fortune. Dunham can build on terms they have inherited from earlier trans people, and can also talk and write about the vicissitudes of erotic desire, about how desire affects what gender means.

For Dunham, exploring gender and sex means exploring embodiment and uncertainty. They live in—and have sexual feelings within—a body that won't settle down, that does not seem to want to take clear form. It's a body, Dunham discovers, that needs to be valued as a kind of chrysalis, ready "to turn into goo, and then re-form." In bed, before transition, Dunham was "always more in tune with my partner's desires than my own." Crushing on a magnetic party girl, Dunham once "felt like a little girl, too self-conscious to get anything right." Their current lover, by contrast, sees and accepts Dunham as a kind man, a real man, a hot man. Dunham found that experimenting with bondage and domination helped clarify how it felt to wield power, and to give it away—paving the way to seeing themselves as a man.

Maybe you, too, have had to embrace uncertainty before you could grow and change. I'm told many people, even cis people, do. Trans people like Dunham, or like me, have to work our way out of false certainties that insist we are now and forever the body our genes assigned us, the gender we were handed at birth. Some of us have to work our way out more than once. "My value," Dunham concludes, "is not in my permanence, but in the resilience with which I recover, and re-recover, and re-form after the deluge."

How do you know you're trans and need to re-form? Can you be trans (the way you can be diabetic, or have perfect pitch) before you know it? Opponents of trans acceptance maintain that trans identities are new and trendy, that trans teens today are jumping on a bandwagon. The claim is in one sense obviously false—many cultures, from Samoa to South Asia, have gender-boundary-crossing identities—and in another sense irrelevant: Our right to acceptance shouldn't depend on how long ago we showed up. We are here now.

Yet this question of origin has inspired useful history. Anne Lister (1791–1840) loved and had sex with women, and dressed and acted very much like a man. Her Yorkshire neighbors called her "Gentleman Jack," though someone who behaved like her today could be an aristocratic butch lesbian, rather than a trans man. Dr. James Barry (1789–1865), by contrast, consistently presented himself as a man throughout his adult life, from his student days in Edinburgh to his decades as a military medical officer, improving sanitation in outposts of the British empire.

Closer to home, Lou Sullivan (1951–91) knew he was trans before he had words for it. But he didn't simply prefigure modern identities. He helped make them visible and livable, publishing *Information for the Female-to-Male Crossdresser and Transsexual* in 1980; writing the biography of an earlier San Francisco trans man, Jack Bee Garland; and working with health-care providers to, in Sullivan's words, make it "officially okay to be a female-to-gay male."

Like Lister, Sullivan kept extensive diaries. To read through them now—in the abridged edition *We Both Laughed in Pleasure*, prepared by Ellis Martin and Zach Ozma—is to find sentiments that trans readers might recognize. "I wanna look like what I am," he muses early on, "but don't know what someone like me looks like." "I've spent my whole life dreaming I was someone else, but no one else would believe me." Sullivan had the sense—as I did, for decades—that coming out as trans was both inevitable and impossible, right up until he decided to take the step. "It's too good to be true," he reflected. "It's so nice to allow myself to say I am a man." First he had to move to San Francisco, and leave his tender, difficult, long-term lover: "Had J not been around," he mused, "I would definitely go towards being male."

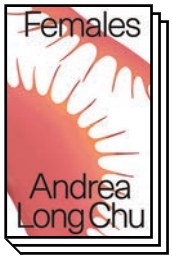
Once Sullivan chose the story he wanted to tell about himself, he could help others find their own. In California, he saw the well-known trans man Steve Dain "counseling an 18-yr-old female who says she feels like a gay man ... so we *do* exist!" Not everybody agreed. "A reputable clinic" in the late 1970s "wouldn't touch [Sullivan] with a 10-foot pole ... Because I don't have the typical transsexual story they want to hear." Yet Sullivan was undeterred in his quest to "just 'be there' for new F→M's," telling them they're "NOT the only one." As his death from HIV/AIDS approached, he wrote: "They told me ... that I could not live as a gay man, but it looks like I will die as one."

You could paint Sullivan's life as a tragedy, but the diary feels full of joy, in part because it's also full of sex—a manual of sorts from a time when trans people had to educate ourselves. "I made myself a good strap-on cock out of socks & wore it to sleep. Good masturbation." "I want to have sex with a man as a man." With the power of imagination, of socks stuffed in pants, of testosterone, and later of top surgery, he did. His most evocative writing conveys the desire at the core of his being. "In my search for the perfect male companion, I find myself. In my need for a man in my bed, I detach myself from my body and my body becomes his."

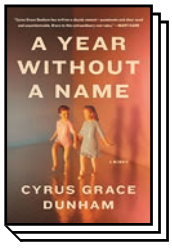
Trans acceptance should not depend on our having to hide or lie about our sex lives. (Chu describes a trans woman whose therapist rejected her on the basis of her sexual tastes: "Real MTFs don't do that.") Nor should acceptance depend on whether we pass, whether we feel the same way every day, whether we match strict binary definitions of male or female. Our stories can change, and they interact with the stories that others tell us about ourselves.

In that sense Chu is right: Almost all of us in various ways try "to become what someone else wants." We seek both the other people who can accept us (as Sullivan did in San Francisco, as Dunham does now) and the imagined future self that we want to, and try to, become. If that search feels like a problem, it's also a solution, the one that Dunham's quarter-life memoir, and Sullivan's voluminous journals, record. "Is wanting enough?" Dunham asks. Can they be "a real man," or will they always and only be "a girl obsessed with men"?

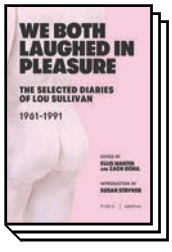
Am I a real woman? Was Sullivan a real man? Why do I care how other people answer that question? But I do care. So does Dunham, and so—I think—does Chu, and so did Sullivan, who made himself, even while dying, into the Bay Area's proud transmasculine historian. "I can never be a man," he wrote, "until my body is whole and I can use it freely and without shame." Such a goal might be the kind you never quite reach. Still, so many of us try to get there, whether the effort looks like one great change or a string of smaller moments. We share our stories, and we make new ones if those we find don't fit; and then we send the new stories out into the world to see whether what resonates for us, what might save us, could help others too.



FEMALES
ANDREA LONG CHU
Verso



A YEAR WITHOUT A NAME: A MEMOIR
CYRUS GRACE DUNHAM
Little, Brown



WE BOTH LAUGHED IN PLEASURE: THE SELECTED DIARIES OF LOU SULLIVAN 1961–1991
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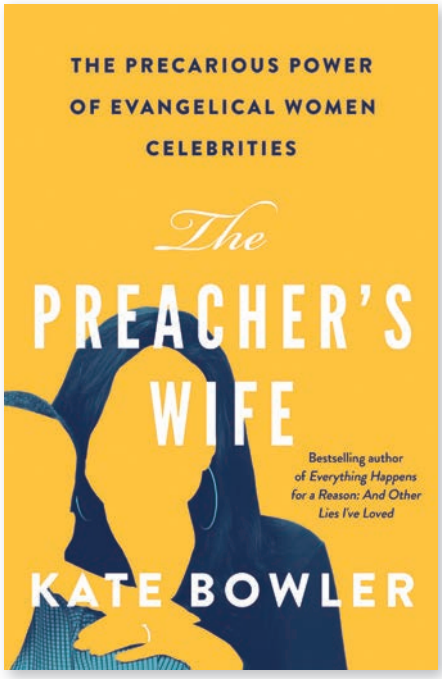
Nightboat

Stephanie Burt is an English professor at Harvard and the author of Don't Read Poetry: A Book About How to Read Poems.



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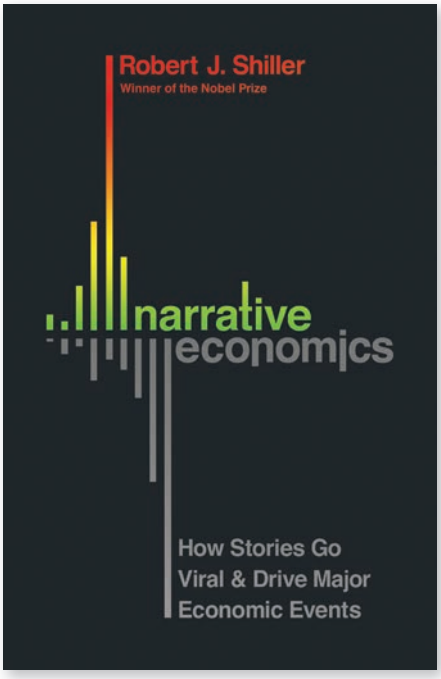

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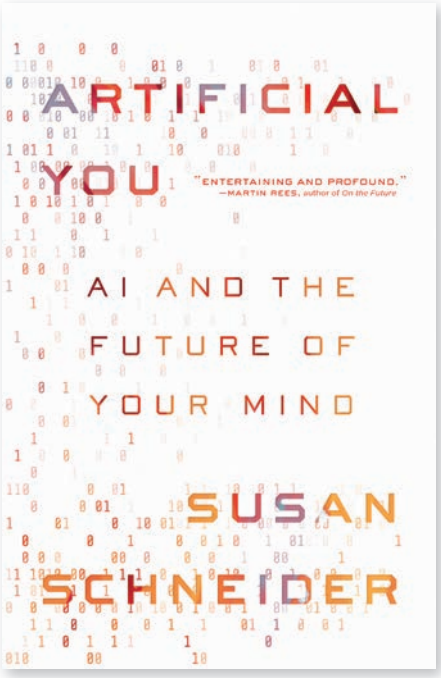

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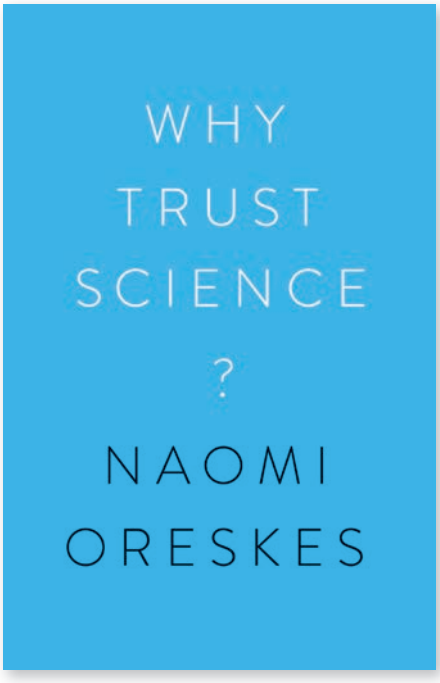

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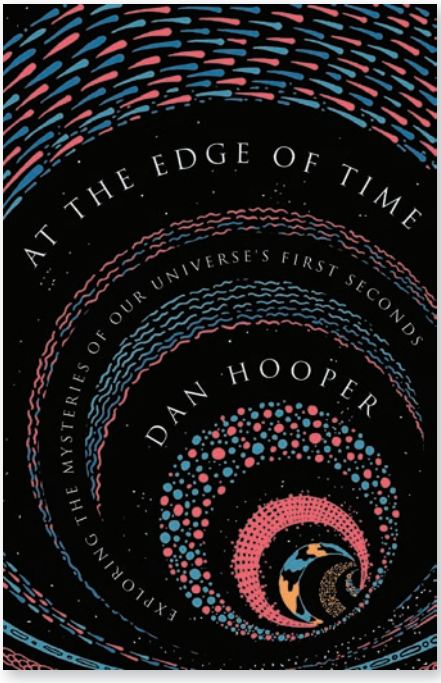

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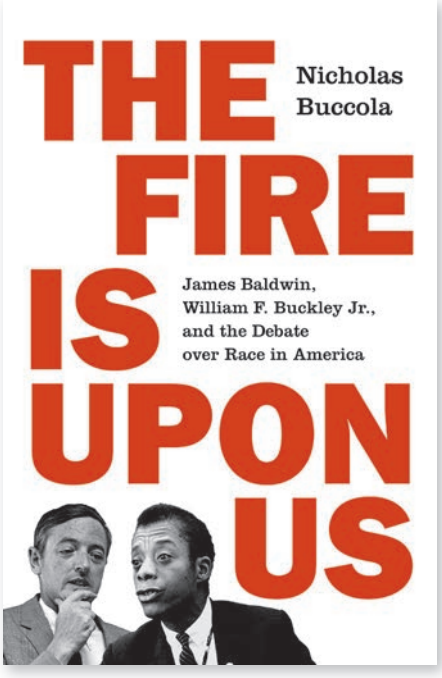

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BOOKS

Thomas Edison's Greatest Invention

It wasn't the light bulb or the phonograph or the moving picture—or anything tangible. It was a way of thinking about technology.

BY DEREK THOMPSON

THOMAS ALVA EDISON listened with his teeth. The inventor of the phonograph was completely deaf in one ear and could barely hear in the other, the result of a mysterious affliction in his childhood. To appreciate a delicate tune emanating from a music player or piano, he would chomp into the wood and absorb the sound waves into his skull. From there they would pass through the cochlea and into the auditory nerve, which would ferry the melody to his prodigious brain. Edison's approach to music consumption had curious side effects, beyond the visible bite marks all over his phonographs. He couldn't hear at the highest frequencies, couldn't stand vocal vibrato, and declared Mozart's music an affront to melody. But his inner ear was so sensitive that he could dazzle sound engineers by pinpointing subtle flaws in their recordings, such as a squeaky flute key among the woodwinds.

A nearly deaf curmudgeon who birthed the recorded-music industry is just one of the extraordinary contradictions that define Edison, whose reputation has tended to oscillate wildly. Depending on whether you incline to a reverential or a revisionist perspective, Edison (1847–1931) was a genius or a thief, a hero of American capitalism or a monster of greed, history's greatest technologist or a hall-of-famer in the competitive category of overrated American white guys. In a new effort to sum up the protean figure—a seven-year undertaking by the biographer Edmund Morris, who died in May—Edison emerges as a giant containing multitudes.

Morris's baroquely detailed portrait presents an Edison motivated by money from his midwestern boyhood onward, who didn't care for the trappings of wealth. He built the world's first film studio, yet had little interest in movies as entertainment. He was a showboating maestro of public relations, but he often turned down invitations and celebrations that would force him to leave his laboratory. He was a workaholic whose final résumé boasted 1,093 patents and countless inventions—including the incandescent light bulb, the phonograph, the alkaline battery, the X-ray fluoroscope, and the carbon-button microphone. Yet his most important idea wasn't something anybody could patent or touch.

MORRIS'S BOOK is not built as a revisionist biography—more on its strange architecture in a moment—but it usefully demolishes several myths that have accreted around Edison's legacy in recent years. First, like various other men who share the "genius" epithet—see: Einstein, Picasso, Jobs—Edison is sometimes portrayed as a beautiful mind that emerged from the chrysalis of childhood awkwardness. He did bounce in and out of various schools in Ohio and Michigan, frustrating teachers in his early years. But under his mother's tutelage, he read steadily and voraciously. By the age of 13, Edison had built a one-boy business selling fruits, groceries, and newspapers that netted $50 a week—the equivalent of an $80,000 annual salary today. Nearly all of this haul went to buying equipment for electric and chemical experiments. Barely pubescent, Edison was already combining the twin skills that would make him world-famous: a natural talent for earning money and an innate compulsion to invent.

A second myth that Morris swats away is the notion that Edison was a mere popularizer of other people's work—a businessman who didn't really invent anything. Most inventions adapt previous breakthroughs: From the steam engine to the iPhone, crucial advances have resulted from a tweak of a tweak of a tweak. To create something entirely new is practically impossible. And yet Edison seems to have done just that.

Early one morning in 1877, in his newly established lab in Menlo Park, New Jersey, he was playing with a diaphragm—a cup-shaped device with a thin metal bottom, which vibrated as Edison shouted into it. Edison thought if he attached a needle to that metal bottom, he could record his words' vibrations on a soft surface. An assistant built a small cylindrical device to spin a scroll of wax paper beneath the tip of the needle. Edison bellowed "Mary Had a Little Lamb" into the mouthpiece, and the needle etched his utterances into the wax paper, creating a retraceable record of the poem. "On pulling the paper through the second time," his assistant Charles Batchelor wrote, the vibrations passed back through the needle and out through the mouthpiece, and "we both of us recognized we had recorded the speech."

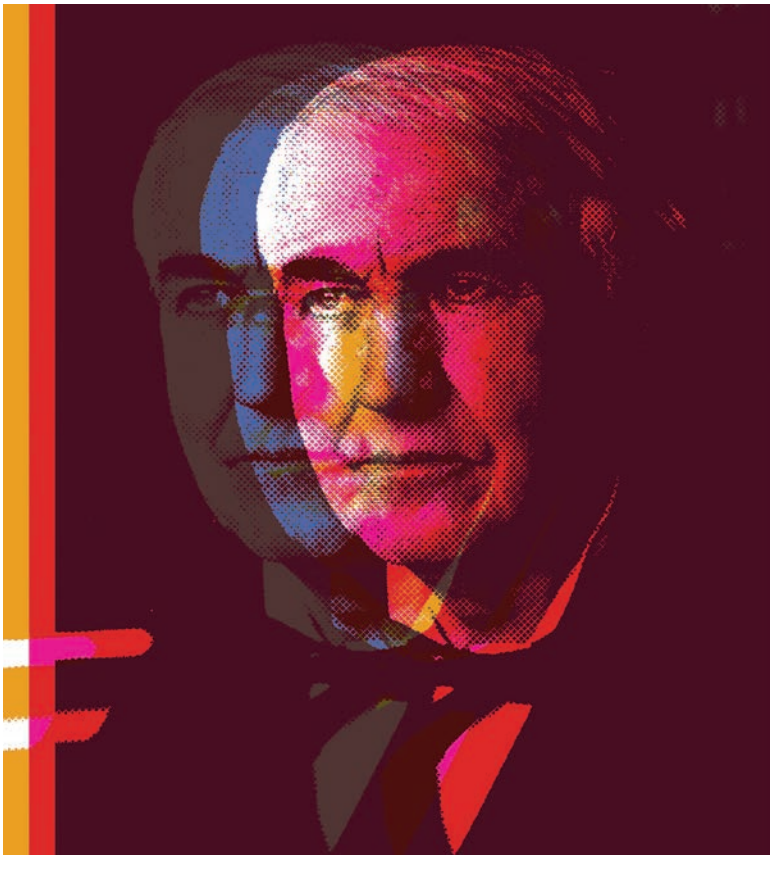
As far as we know, this was the first time in history that a human being listened to a recorded sound. Morris describes the moment in Homeric tones:

> Since the dawn of humanity, religions had asserted without proof that the human soul would live on after the body rotted away. The human voice was a thing almost as insubstantial as the soul, but it was a product of the body and therefore must die too—in fact, did die, evaporating like breath the moment each word, each phoneme was sounded. For that matter, even the notes of inanimate

things—the tree falling in the wood, thunder rumbling, ice cracking—sounded once only, except if they were duplicated in echoes that themselves rapidly faded. But here now were echoes made hard.

The year after inventing the phonograph, Edison built a telephone that surpassed the devices made by its inventors, Alexander Graham Bell and Elisha Gray, in an official contest of call clarity. The year after that, he achieved semidivine status with his incandescent light bulb. He did all this by the time he was 33, despite almost no prior experience in acoustics, telephony, or illumination technology. Such a feat is all but imponderable, like an athlete winning MVP awards in basketball, football, and baseball in consecutive years, having received barely any formal training in ball sports.

Even as he gives Edison's accomplishments their due, Morris punctures a third myth—that of the solitary genius—and in the process usefully elbows Edison's employee turned rival, Nikola Tesla, off the pedestal he's come to occupy in the internet era. Soon after Edison hired Tesla to work at his New York City dynamo factory, in 1884, the young Serbian engineer left to pursue his own dreams of electricity. A contest to be the Prometheus of their era had begun. While Edison was the first man to bathe a neighborhood in electric light, he relied on direct-current, or DC, technology, which was expensive to run across long distances. Tesla was the godfather of alternating-current, or AC, technology, which uses a rotating magnetic field to more efficiently power a large area. The briefest summary of this rivalry, which is the subject of a new film this fall called *The Current War*, is that Edison won the battle of the bulbs, and Tesla's tech won the war.



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But comparing them reveals something deeper about the nature of innovation. Tesla died alone in 1943, drifting toward madness—a fate that is sometimes offered as proof of the ascetic purity of his genius. But to romanticize Tesla's lonely death is to implicitly praise the very thing that held him back: his insistence on solitude. Innovation thrives under the opposite conditions, and it was Edison, not Tesla, who recognized that genius loves company.

The cooperative nature of science had been understood long before Edison wobbled a diaphragm. When Isaac Newton wrote, "If I have seen further it is by standing on the shoulders of giants," he was acknowledging that invention is a team sport, even if Newton's team was mostly dead people. Edison, so proficient at improving existing ideas, made a useful tweak: If ghosts make good teammates, just imagine how helpful the living might be.

Inside the two-story shed he built in Menlo Park in 1876, Edison oversaw a factory of invention, with a team of "muckers"—his term for professional experimenters—who fleshed out his sketches and made him the most famous inventor in the world. For example, Edison might never have conceived his signature light bulb without Ludwig Böhm, a Bavarian glassblower, or his right-hand man, Batchelor, who carbonized the paper that glowed within the pear-shaped bulb.

From the start, Menlo Park was both unique and controversial. "It has never, is not now, and never will pay commercially, to keep an establishment of professional inventors," T. D. Lockwood, the head of AT&T's patent department, declared in 1885. But as Edison's team-based success became too obvious to ignore, other companies built similar facilities—and saw similarly magical results.

In the early 20th century, AT&T abandoned Lockwood's position and, after years of occupying aging labs in New York City, in 1941 opened a state-of-the-art research facility in Murray Hill, just 10 miles north of Menlo Park—Bell Labs. That unit went on to patent the transistor, the laser, and the first solar-energy cell. From 1930 to 1965, DuPont's Experimental Station, in Wilmington, Delaware, developed synthetic rubber, nylon, and Kevlar. The following decade, the Xerox Palo Alto Research Center helped design the modern personal computer. After Russia's launch of the Sputnik rocket, the U.S. government got in on the act, establishing

Illustration by ARSH RAZIUDDIN

the Advanced Research Projects Agency, or ARPA, which in 1969 laid the technical foundation of the internet. It is hardly an exaggeration to say that almost every important technological invention in the 20th century emerged from just the sort of R&D lab that Edison created.

Since the 1980s, several measures of innovation have mysteriously declined. Some researchers have suggested that today's biggest challenges in science and technology, such as designing artificial intelligence that can mimic human thought, are just more challenging than the 19th-century problems of reproducing sound and light. But perhaps we've also lost sight of Edison's most important invention: the cross-disciplinary invention factory.

In a 2019 paper, economists at Duke University and the University of East Anglia, in England, found that the number of ambitious corporate R&D labs akin to Menlo Park and Bell Labs has dropped in the past few decades, just as productivity rates have fallen. Research and development still happen, but the two processes have been decoupled in the past 40 years: Basic research is concentrated in universities, while large corporations handle product development. Teams like Edison's—where scientists and abstract thinkers worked cheek by jowl with machinists and electricians and other hardware tinkerers—are harder to find (although exceptions do exist, such as X, the R&D factory at Google's parent company, Alphabet).

NOW I HAVE TO TELL YOU something about Morris's biography: It goes backwards. Thomas Edison dies in the prologue, and toward the end, a young boy called Alva reads a book about electricity and is inspired. Each chapter traces a full decade (Chapter 1 begins in 1920 and ends in 1929), and then, for no discernible reason, the story backflips 19 years to begin the *previous* decade (Chapter 2 begins in 1910).

If Morris perhaps felt his innovation would shed fresh light on a life marked by improvisatory creation rather than by structured, strictly cumulative accomplishments, he was mistaken. Nothing is gained by this approach, and much comprehension is lost. Edison's inventive sprints don't fit neatly within 10-year chunks. The electric illumination of Menlo Park, on New Year's Eve 1879, caused a sensation in the first days of 1880. But because Morris's crab-walk gives priority to the more recent decade, the lights of the New Jersey hamlet turn on more than 200 pages *after* the crowd cheers their illumination.

Within the chapters, however, Edison is vibrantly alive, and though Morris doesn't step back to emphasize this, Edison's conjuring powers make him a mascot and a microcosm of his turn-of-the-century era. In 1880, Manhattan had no subway, no cars, and no electric grid; its tallest building was a church. By 1915, New York had a subway system, thousands of cars, the Great White Way (an allusion to Broadway's newly electric signs), and the world's tallest skyscrapers, thanks to the development of steel-skeleton construction. That same period saw the invention of the airplane, the air conditioner, and the assembly line. Although today tech journalism is, often rightfully, suffused with cynicism, the age of Edison was marked by exuberant optimism, and individuals believed they could reshape the entire physical world—so they did.

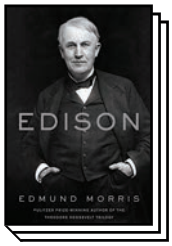
But Edison was prescient about our world, too. Before he designed a working light bulb, he had already envisioned a wired city buzzing with electric elevators, sewing machines, and "any other mechanical contrivance." After realizing the ecological costs of electricity, he suggested that energy companies "should utilize natural forces [like] sunshine … and the winds and the tides." He might have made a brilliant media mogul. Even before the release of the kinetophone, a device that combined moving pictures with live-recorded sound, he urged President William Howard Taft to campaign for reelection by recording speeches that people might watch on screens, anticipating the future not just of entertainment but of democracy.

In a life overflowing with ideas both patented and unrealized, Edison himself gave fuel to his debunkers, insisting, "I never had an idea in my life."

> I've got no imagination. I never dream. My so-called inventions already existed in the environment—I took them out. I've created nothing. Nobody does. There's no such thing as an idea being brain-born. Everything comes from the outside. The industrious one coaxes it from the environment.

This can be read in several ways—as provocative overstatement, as an honest description of creativity's mechanics, or as a paean to the inventor's workaholism. To me, its ambiguity highlights Edison's greatest contradiction. The man who created the team-based R&D lab had a habit of talking about his work in the first-person singular, referring to "*my* so-called inventions" and anointing himself "the industrious *one*." Edison's life should be a durable lesson in the power of creative teamwork. Instead his surname has become an eponym for individual genius, whether heroic or hyped. *Edison* reveres its subject, but Morris's portrait also shows that while "the industrious one" can be a remarkable catalyst, inventiveness truly thrives thanks to the industrious many.

From the start, Menlo Park was both unique and controversial.



EDISON
EDMUND MORRIS
Random House

Derek Thompson is a staff writer at The Atlantic. *He is the author of* Hit Makers *and the host of the podcast* Crazy/Genius.

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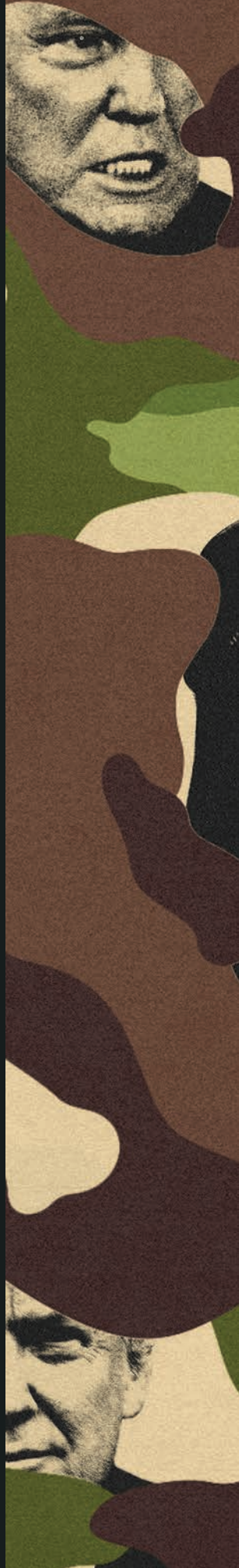
GENERAL CHAOS

WHAT TOP MILITARY OFFICERS REALLY THINK ABOUT TRUMP

BY MARK BOWDEN



For most of the past two decades, American troops have been deployed all over the world—to about 150 countries. During that time, hundreds of thousands of young men and women have experienced combat, and a generation of officers have come of age dealing with the practical realities of war. They possess a deep well of knowledge and experience. For the past three years, these highly trained professionals have been commanded by Donald Trump.

To get a sense of what serving Trump has been like, I interviewed officers up and down the ranks, as well as several present and former civilian Pentagon employees. Among the officers I spoke with were four of the highest ranks—three or four stars—all recently retired. All but one served Trump directly; the other left the service shortly before Trump was inaugurated. They come from different branches of the military, but I'll simply refer to them as "the generals." Some spoke only off the record, some allowed what they said to be quoted without attribution, and some talked on the record.

Military officers are sworn to serve whomever voters send to the White House. Cognizant of the special authority they hold, high-level officers epitomize respect for the chain of command, and are extremely reticent about criticizing their civilian overseers. That those I spoke with made an exception in Trump's case is telling, and much of what they told me is deeply disturbing. In 20 years of writing about the military, I have never heard officers in high positions express such alarm about a president. Trump's pronouncements and orders have already risked catastrophic and unnecessary wars in the Middle East and Asia, and have created severe problems for field commanders engaged in combat operations. Frequently caught unawares by Trump's statements, senior military officers have scrambled, in their aftermath, to steer the country away from tragedy. How many times can they successfully do that before faltering?

Amid threats spanning the globe, from nuclear proliferation to mined tankers in the Persian Gulf to terrorist attacks and cyberwarfare, those in command positions monitor the president's Twitter feed like field officers scanning the horizon for enemy troop movements. A new front line in national defense has become the White House Situation Room, where the military struggles to accommodate a commander in chief who is both ignorant and capricious. In May, after months of threatening Iran, Trump ordered the carrier group led by the USS Abraham Lincoln to shift from the Mediterranean Sea to the Persian Gulf. On June 20, after an American drone was downed there, he ordered a retaliatory attack—and then called it off minutes before it was to be launched. The next day he said he was "not looking for war" and wanted to talk with Iran's leaders, while also promising them "obliteration like you've never seen before" if they crossed him. He threatened North Korea with "fire and fury" and dispatched a three-aircraft-carrier flotilla to waters off the Korean peninsula—then he pivoted to friendly summits with Kim Jong Un, with whom he announced he was "in love"; canceled long-standing U.S. military exercises with South Korea; and dangled the possibility of withdrawing American forces from the country altogether. While the lovefest continues for the cameras, the U.S. has quietly uncanceled the canceled military exercises, and dropped any mention of a troop withdrawal.

Such rudderless captaincy creates the headlines Trump craves. He revels when his tweets take off. ("Boom!" he says. "Like a rocket!") Out in the field, where combat is more than wordplay, his tweets have consequences. He is not a president who thinks through consequences—and this, the generals stressed, is not the way serious nations behave.

The generals I spoke with didn't agree on everything, but they shared the following five characterizations of Trump's military leadership.

OPENING SPREAD: NICHOLAS KAMM; OLIVIER DOULIERY/AFP/GETTY; ERIK S. LESSER/AP; KEVIN LAMARQUE/REUTERS

I.

HE DISDAINS EXPERTISE

Trump has little interest in the details of policy. He makes up his mind about a thing, and those who disagree with him—even those with manifestly more knowledge and experience—are stupid, or slow, or crazy.

As a personal quality, this can be trying; in a president, it is dangerous. Trump rejects the careful process of decision making that has long guided commanders in chief. Disdain for process might be the defining trait of his leadership. Of course, no process can guarantee good decisions—history makes that clear—but eschewing the tools available to a president is choosing ignorance. What Trump's supporters call "the deep state" is, in the world of national security—hardly a bastion of progressive politics—a vast reservoir of knowledge and global experience that presidents ignore at their peril. The generals spoke nostalgically of the process followed by previous presidents, who solicited advice from field commanders, foreign-service and intelligence officers, and in some cases key allies before reaching decisions about military action. As different as George W. Bush and Barack Obama were in temperament and policy preferences, one general told me, they were remarkably alike in the Situation Room: Both presidents asked hard questions, wanted prevailing views challenged, insisted on a variety of options to consider, and weighed potential outcomes against broader goals. Trump doesn't do any of that. Despite commanding the most sophisticated intelligence-gathering apparatus in the world, this president prefers to be briefed by Fox News, and then arrives at decisions without input from others.

One prominent example came on December 19, 2018, when Trump announced, via Twitter, that he was ordering all American forces in Syria home.

"We have defeated ISIS in Syria, my only reason for being there during the Trump presidency," he tweeted. Later that day he said, "Our boys, our young women, our men, they are all coming back, and they are coming back now."

This satisfied one of Trump's campaign promises, and it appealed to the isolationist convictions of his core supporters. Forget the experts, forget the chain of command—they were the people who, after all, had kept American forces engaged in that part of the world for 15 bloody years without noticeably improving things. Enough was enough.

At that moment, however, American troops were in the final stages of crushing the Islamic State, which, contrary to Trump's assertion, was collapsing but had not yet been defeated. Its brutal caliphate, which had briefly stretched from eastern Iraq to western Syria, had been painstakingly dismantled over the previous five years by an American-led global coalition, which was close to finishing the job. Now they were to stop and come home?

Here, several of the generals felt, was a textbook example of ill-informed decision making. The downsides of a withdrawal were obvious: It would create a power vacuum that would effectively cede the fractured Syrian state to Russia and Iran; it would abandon America's local allies to an uncertain fate; and it would encourage a diminished ISIS to keep fighting. The decision—which prompted the immediate resignations of the secretary of defense, General James Mattis, and the U.S. special envoy to the mission, Brett McGurk—blindsided not only Congress and America's allies but the person charged with actually waging the war, General Joseph Votel, the commander of U.S. Central Command. He had not been consulted.

Trump's tweet put Votel in a difficult spot. Here was a sudden 180-degree turn in U.S. policy that severely undercut an ongoing effort. The American contingent of about 2,000 soldiers, most of them Special Forces, was coordinating with the Iraqi army; the Syrian Democratic Forces, or SDF, consisting primarily of Kurdish militias and Syrians opposed to President Bashar al-Assad; and representatives of NATO, the Arab League, and dozens of countries. This alliance had reduced ISIS's territory to small pockets of resistance inside Syria. America's troops were deep in the Euphrates Valley, a long way from their original bases of operation. An estimated 10,000 hard-core Islamist soldiers were fighting to the death. Months of tough combat lay ahead.

Votel's force in Syria was relatively small, but it required a steady supply of food, ammunition, parts, and medical supplies, and regular troop rotations. The avenue for these vital conveyances—through hundreds of miles of hazardous Iraqi desert—was truck convoys, protected almost exclusively by the SDF. To protect its troops during a retreat, America could have brought in its own troops or replaced those truck convoys with airlifts, but either step would have meant suddenly escalating an engagement that the president had just pronounced finished.

For the American commander, this was a terrible logistical challenge. An orderly withdrawal of his forces would further stress supply lines, therefore necessitating the SDF's help even more. Votel found himself in the position of having to tell his allies, in effect, *We're screwing you, but we need you now more than ever*.

TRUMP'S TWEET PUT GENERAL VOTEL IN THE POSITION OF TELLING OUR ALLIES, IN EFFECT, *WE'RE SCREWING YOU, BUT WE NEED YOU NOW MORE THAN EVER.*

Field commanders are often given orders they don't like. The military must bow to civilian rule. The generals accept and embrace that. But they also say that no careful decision-making process would have produced Trump's abrupt about-face.

Votel decided to take an exceedingly rare step: He publicly contradicted his commander in chief. In an interview with CNN he said that no, ISIS was not yet defeated, and now was not the time to retreat. Given his responsibility to his troops and the mission, the general didn't have much choice.

Votel held everything together. He took advantage of the good relationship he had built with the SDF to buy enough time for Trump to be confronted with the consequences of his decision. A few days later, the president backed down—while predictably refusing to admit that he had done so. American forces would stay in smaller numbers (and France and the U.K. would eventually agree to commit more troops to the effort). The 180-degree turn was converted into something more like a 90-degree one. In the end, the main effects of Trump's tweet were bruising the trust of allies and heartening both Assad and ISIS.

ILLUSTRATIONS BY PAUL SPELLA

II.

HE TRUSTS ONLY HIS OWN INSTINCTS

Trump believes that his gut feelings about things are excellent, if not genius. Those around him encourage that belief, or they are fired. Winning the White House against all odds may have made it unshakable.

Decisiveness is good, the generals agreed. But making decisions without considering facts is not.

Trump has, on at least one occasion, shown the swiftness and resolution commanders respect: On April 7, 2017, he responded to a chemical-warfare attack by Assad with a missile strike on Syria's Shayrat Airbase. But this was not a hard call. It was a one-time proportional retaliation unlikely to stir international controversy or wider repercussions. Few international incidents can be cleanly resolved by an air strike.

A case in point is the flare-up with Iran in June. The generals said Trump's handling of it was perilous, because it could have led to a shooting war. On June 20, Iran's air defenses shot down an American RQ-4A Global Hawk, a high-altitude surveillance drone the Iranians said had violated their airspace. The U.S. said the drone was in international airspace. (The disputed coordinates were about 12 miles apart—not a big difference for an aircraft moving hundreds of miles an hour.) In retaliation, Trump ordered a military strike on Iran—and then abruptly called it off after, he claimed, he'd been informed that it would kill about 150 Iranians. One general told me this explanation is highly improbable—any careful discussion of the strike would have considered potential casualties at the outset. But whatever his reasoning, the president's reversal occasioned such relief that it obscured the gravity of his original decision.

"How did we even get to that point?" the general asked me in astonishment. Given what a tinderbox that part of the world is, what kind of commander in chief would risk war with Iran over a drone?

Not only would a retaliatory strike have failed the litmus test of proportionality, this general said, but it would have accomplished little, escalated the dispute with Iran, and risked instigating a broad conflict. In an all-out war, the U.S. would defeat Iran's armed forces, but not without enormous bloodshed, and not just in Iran. Iran and its proxies would launch terrorist strikes on American and allied targets throughout the Middle East and beyond. If the regime were to fall, what would come next? Who would step in to govern a Shiite Muslim nation of 82 million steeped for generations in hatred of America? The mullahs owe their power to the American overthrow of Iran's elected government in 1953, an event widely regarded in Iran (and elsewhere) as an outrage. Conquering Americans would not be greeted by happy Persian crowds. The generals observed that those who predicted such parades in Baghdad following the ouster of Saddam Hussein instead got a decade-long bloodbath. Iran has more than twice Iraq's population, and is a far more developed nation. The Iraq War inspired the creation of ISIS and gave renewed momentum to al-Qaeda; imagine how war with Iran might mobilize Hezbollah, the richest and best-trained terrorist organization in the world.

Sometimes, of course, war is necessary. That's why we maintain the most expensive and professional military in the world. But a fundamental reason to own such power is to *avoid* wars—especially wars that are likely to create worse problems than they solve.

General Votel, who commanded American forces in the region until he retired in March, told me that if the U.S. had carried out a retaliatory strike, "the trick for the military in this case would be to orchestrate some type of operation that would very quickly try and get us to an off-ramp—give them an off-ramp or provide us with an off-ramp—so we can get to some kind of discussion to resolve the situation." Trump's attack might have targeted some of the Iranian navy's vessels and systems that threaten shipping in the Strait of Hormuz, Votel said, or it might have leveled a measured strike against the air defenses that struck the drone. Ideally it would have been followed by a pause, so diplomatic processes could kick in. The strike would have demonstrated to Iran that we have the capability and willingness to strike back if provoked, and made clear that in a serious fight, it could not prevail. But all of this presumes a sequence that would unfold in an orderly, rational way—a preposterous notion.

"This is all completely unpredictable," Votel said. "It's hard for me to see how it would play out. We would be compelled to leave large numbers of forces in the region as a deterrent. If you don't have an off-ramp, you're going to find yourself in some kind of protracted conflict." Which is precisely the kind of scenario Trump has derided in the past. His eagerness to free the U.S. from long-term military conflicts overseas was why he made his abrupt announcement about pulling out of Syria. Evidently he didn't fully consider where a military strike against Iran was likely to lead.

"HOW DID WE EVEN GET TO THAT POINT?" ONE GENERAL ASKED ME IN ASTONISHMENT. WHAT KIND OF COMMANDER IN CHIEF WOULD RISK WAR WITH IRAN OVER A DRONE?

The real reason Trump reversed himself on the retaliatory strike, one general said, was not because he suddenly learned of potential casualties, but because someone, most likely General Joseph Dunford, the chairman of the Joint Chiefs of Staff, aggressively confronted him with the extended implications of an attack.

"I know the chairman very well," the general said. "He's about as fine an officer as I have ever spent time around. I think if he felt the president was really heading in the wrong direction, he would let the president know." He added that Secretary of State Mike Pompeo may have counseled against an attack as well. "Pompeo's a really bright guy. I'm sure he would intervene and give the president his best advice."

MICHAEL HEIMAN/GETTY

III.

HE RESISTS COHERENT STRATEGY

If there is any broad logic to Trump's behavior, it's *Keep 'em confused*. He believes that unpredictability itself is a virtue.

Keeping an enemy off-balance can be a good thing, the generals agreed, so long as you are not off-balance yourself. And it's a tactic, not a strategy. Consider Trump's rhetorical dance with the North Korean dictator Kim Jong Un. No president in modern times has made progress with North Korea. Capable of destroying Seoul within minutes of an outbreak of hostilities, Pyongyang has ignored every effort by the U.S. and its allies to deter it from building a nuclear arsenal.

Trump has gone back and forth dramatically on Kim. As a candidate in 2016, he said he would get China to make the North Korean dictator "disappear in one form or another very quickly." Once in office, he taunted Kim, calling him "Little Rocket Man," and suggested that the U.S. might immolate Pyongyang. Then he switched directions and orchestrated three personal meetings with Kim.

"That stuff is just crazy enough to work," one of the generals told me with a *what-the-hell?* chuckle. "We'll see what happens. If they can get back to some kind of discussion, if it can avert something, it will have been worth it. The unconventional aspect of that does have the opportunity to shake some things up."

In the long run, however, unpredictability is a problem. Without a coherent underlying strategy, uncertainty creates confusion and increases the chance of miscalculation—and miscalculation, the generals pointed out, is what starts most wars. John F. Kennedy famously installed a direct hotline to the Kremlin in order to lower the odds of blundering into a nuclear exchange. Invading Kuwait, Saddam Hussein stumbled into a humiliating defeat in the first Gulf War—a conflict that killed more than 100,000 people—after a cascading series of miscommunications and miscalculations led to a crushing international response.

Unpredictability becomes an impediment to success when it interferes with orderly process. "Say you're going to have an engagement with North Korea," a general who served under multiple presidents told me. "At some point you should have developed a strategy that says, *Here's what we want the outcome to be*. And then somebody is developing talking points. Those talking points are shared with the military, with the State Department, with the ambassador. Whatever the issue might be, before the president ever says *anything*, everybody should know what the talking points are going to be." To avoid confusion and a sense of aimlessness, "everybody should have at least a general understanding of what the strategy is and what direction we're heading in."

Which is frequently not the case now.

"If the president says 'Fire and brimstone' and then two weeks later says 'This is my best friend,' that's not necessarily bad—but it's bad if the rest of the relevant people in the government responsible for executing the strategy aren't aware that that's the strategy," the general said. Having a process to figure out the sequences of steps is essential. "The process tells the president what he should say. When I was working with Obama and Bush," he continued, "before we took action, we would understand what that action was going to be, we'd have done a Q&A on how we think the international community is going to

respond to that action, and we would have discussed how we'd deal with that response."

To operate outside of an organized process, as Trump tends to, is to reel from crisis to rapprochement to crisis, generating little more than noise. This haphazard approach could lead somewhere good—but it could just as easily start a very big fire.

If the president eschews the process, this general told me, then when a challenging national-security issue arises, he won't have information at hand about what the cascading effects of pursuing different options might be. "He's kind of shooting blind." Military commanders find that disconcerting.

"The process is not a panacea—Bush and Obama sometimes made bad decisions even with all the options in front of them—but it does help."

IV.

"HE IS REFLEXIVELY CONTRARY"

General H. R. McMaster, who left the White House on reasonably good terms in April 2018 after only 14 months as national security adviser, is about as can-do a professional as you will find. He appeared to take Trump seriously, and tailored his briefings to accommodate the president's famous impatience, in order to equip him for the weighty decisions the office demands. But Trump resents advice and instruction. He likes to be agreed with. Efforts to broaden his understanding irritate him. McMaster's tenure was bound to be short. Weeks before accepting his resignation, the president let it be known that he found McMaster's briefings tedious and the man himself "gruff and condescending."

Distrusting expertise, Trump has contradicted and disparaged the intelligence community and presided over a dismantling of the State Department. This has meant leaving open ambassadorships around the world, including in countries vital to American interests such as Brazil, Canada, Honduras, Japan, Jordan, Pakistan, Russia, and Ukraine. High-level foreign officers, seeing no opportunities for advancement, have been leaving.

"When you lose these diplomats and ambassadors that have all this experience, this language capability, this cultural understanding, that makes things very, very difficult for us," one of the generals said. "And it leads to poor decisions down the line."

Trump so resists being led that his instinct is nearly always to upend prevailing opinion.

"He is reflexively contrary," another of the generals told me.

According to those who worked with him, McMaster avoided giving the president a single consensus option, even when one existed. He has said that he always tried to give the president room to choose. After leaving the White House, he criticized others in the national-security community for taking a different approach, accusing them of withholding information in hopes of steering Trump in the direction they preferred. McMaster has not named names, but he was most likely talking about Mattis and General John Kelly, who, after serving as Trump's homeland-security secretary, became the president's second chief of staff. McMaster has said that he considered such an approach tantamount to subverting the Constitution—but if his allegation is true, it shows how poorly equipped those people felt Trump was for the job. Special Counsel Robert Mueller's report records numerous instances of civilian advisers trying to manage the president, or simply ignoring presidential directives they deemed ill-advised or illegal.

During his brief tenure on Trump's staff, McMaster oversaw the production of a broad national-security strategy that sought to codify Trump's "America first" worldview, placing immigration at the head of national-security concerns, right alongside nuclear proliferation and terrorist attacks. The idea was to build a coherent structure around the president's scattershot diplomacy. Trump rhapsodized about the document at its unveiling, according to someone who was there, saying, "I love it! I love it! I want to use this all the time."

He hasn't. Like its author, the document has been dismissed. Those who were involved in writing it remain convinced, somewhat hopefully, that it is still helping guide policy, but John Bolton, McMaster's successor, said scornfully—a few months before he, too, was ousted by Trump—that it is filed away somewhere, consulted by no one.

Trump is no more likely to have read the thing than he is to have written his own books. (Years ago, after he published *The Art of the Deal*, he asked me if I was interested in writing his next

ERIC THAYER/REUTERS

book. I declined.) Trying to shape this president's approach to the world into a cogent philosophy is a fool's errand. For those commanding America's armed forces, it's best to keep binoculars trained on his Twitter feed.

V.

HE HAS A SIMPLISTIC AND ANTIQUATED NOTION OF SOLDIERING

Though he disdains expert advice, Trump reveres—perhaps fetishizes—the military. He began his presidency by stacking his administration with generals: Mattis, McMaster, Kelly, and, briefly, Michael Flynn, his first national security adviser. Appointing them so soon after their retirement from the military was a mistake, according to Don Bolduc, a retired brigadier general who is currently running as a Republican for the U.S. Senate in New Hampshire. Early on, the biggest difference Bolduc saw between the Trump administration and its predecessors, and one he felt was "going to be disruptive in the long term," was "the significant reliance, in the Pentagon at least, on senior military leadership overriding and making less relevant our civilian oversight. That was going to be a huge problem. The secretary of defense pretty much surrounded himself with his former Marine comrades, and there was, at least from that group, a distrust of civilians that really negatively affected the Pentagon in terms of policy and strategy in Afghanistan, Syria, and Iraq, by following the same old failed operational approaches." Trump's reliance on military solutions is problematic because "there are limits to what the military can solve. I think initially the Trump administration held this idea that general officers somehow have all the answers to everything. I think the president discovered in short order that that's really not the case."

Bolduc also pointed out an unusual leadership challenge caused by having a general of McMaster's rank serve as national security adviser—he did not retire when he assumed the post. "McMaster, for whom I have tremendous respect, came in as a three-star general. Leaving him a three-star forces him on a daily basis to have to engage with four-star generals who see his rank as beneath theirs, even though his position is much more than that."

The problems posed by Trump's skewed understanding of the military extend beyond bad decision making to the very culture of our armed forces: He apparently doesn't think American soldiers accused of war crimes should be prosecuted and punished. In early May, he pardoned former Army Lieutenant Michael Behenna, who had been convicted of murdering an Iraqi prisoner. Two weeks later, he asked the Justice Department to prepare pardon materials for a number of American servicemen and contractors who were charged with murder and desecration of corpses, including Special Operations Chief Edward Gallagher, a Navy SEAL who stood accused by his own team members of fatally stabbing a teenage ISIS prisoner and shooting unarmed civilians. (He was ultimately acquitted of the murders but convicted of posing for photos with the boy's body.) Trump subsequently chastised the military attorneys who had prosecuted Gallagher, and directed that medals awarded to them be rescinded. All of the generals agreed that interfering with the military's efforts to police itself badly undermines command and control. When thousands of young Americans are deployed overseas with heavy weaponry, crimes and atrocities will sometimes occur. Failing to prosecute those who commit them invites behavior that shames everyone in uniform and the nation they serve.

"He doesn't understand the warrior ethos," one general said of the president. "The warrior ethos is important because it's sort of a sacred covenant not just among members of the military profession, but between the profession and the society in whose name we fight and serve. The warrior ethos transcends the laws of war; it governs your behavior. The warrior ethos makes units effective because of the values of trust and self-sacrifice associated with it—but the warrior ethos also makes wars less inhumane and allows our profession to maintain our self-respect and to be respected by others. Man, if the warrior ethos gets misconstrued into 'Kill them all …'" he said, trailing off. Teaching soldiers about ethical conduct in war is not just about morality: "If you treat civilians disrespectfully, *you're working for the enemy!* Trump doesn't understand."

Having never served or been near a battlefield, several of the generals said, Trump exhibits a simplistic, badly outdated notion of soldiers as supremely "tough"—hard men asked to perform hard and sometimes ugly jobs. He also buys into a severely outdated concept of leadership. The generals, all of whom have led troops in combat, know better than most that war is hard and ugly, but their understanding of "toughness" goes well beyond the gruff stoicism of a John Wayne movie. Good judgment counts more than toughness.

Bolduc said he came up in a military where it was accepted practice for senior leaders to blame their subordinates, lose their temper, pound on desks, and threaten to throw things, and the response to that behavior was "*He's a hard-ass*. Right? *He's tough*. That is not leadership. You don't get optimal performance being that way. You get optimal performance by being completely opposite of that."

Bolduc worries that, under Trump's command, a return to these antiquated notions of "toughness" will worsen the epidemic of PTSD plaguing soldiers who have served repeated combat tours. Senior military officers have learned much from decades of war—lessons Bolduc said are being discarded by a president whose closest brush with combat has been a movie screen.

The military is hard to change. This is bad, because it can be maddeningly slow to adapt, but also good, because it can withstand poor leadership at the top. In the most crucial areas, the generals said, the military's experienced leaders have steered Trump away from disaster. So far.

"The hard part," one general said, "is that he may be president for another five years."

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*Charles River Associates, July 19, 2019, "The Impact on the U.S. Economy of Excluding Huawei from Participation in the U.S. Market for Wireless Network Equipment"

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Jeff Bezos's Master Plan

What he wants for his empire and himself, and what that means for the rest of us

BY FRANKLIN FOER

1.0

Where in the pantheon of American commercial titans does Jeffrey Bezos belong? Andrew Carnegie's hearths forged the steel that became the skeleton of the railroad and the city. John D. Rockefeller refined 90 percent of American oil, which supplied the pre-electric nation with light. Bill Gates created a program that was considered a prerequisite for turning on a computer.

At 55, Bezos has never dominated a major market as thoroughly as any of these forebears, and while he is presently the richest man on the planet, he has less wealth than Gates did at his zenith. Yet Rockefeller largely contented himself with oil wells, pump stations, and railcars; Gates's fortune depended on an operating system. The scope of the empire the founder and CEO of Amazon has built is wider. Indeed, it is without precedent in the long history of American capitalism.

Today, Bezos controls nearly 40 percent of all e-commerce in the United States. More product searches are conducted on Amazon than on Google, which has allowed Bezos to build an advertising business as valuable as the entirety of IBM. One estimate has Amazon Web Services controlling almost half of the cloud-computing industry—institutions as varied as General Electric, Unilever, and even the CIA rely on its servers. Forty-two percent of paper book sales and a third of the market for streaming video are controlled by the company; Twitch, its video platform popular among gamers, attracts 15 million users a day. Add *The Washington Post* to this portfolio and Bezos is, at a minimum, a rival to the likes of Disney's Bob Iger or the suits at AT&T, and arguably the most powerful man in American culture.

I first grew concerned about Amazon's power five years ago. I felt anxious about how the company bullied the book business, extracting ever more favorable terms from the publishers that had come to depend on it. When the conglomerate Hachette, with which I'd once published a book, refused to accede to Amazon's demands, it was punished. Amazon delayed shipments of Hachette books; when consumers searched for some Hachette titles, it redirected them to similar books from other publishers. In 2014, I wrote a cover story for *The New Republic* with a pugilistic title: "Amazon Must Be Stopped." Citing my article, the company subsequently terminated an advertising campaign for its political comedy, *Alpha House*, that had been running in the magazine.

Since that time, Bezos's reach has only grown. To the U.S. president, he is a nemesis. To many Americans, he is a beneficent wizard of convenience and abundance. Over the course of just this past year, Amazon has announced the following endeavors: It will match potential home buyers with real-estate agents and integrate their new homes with Amazon devices; it will enable its voice assistant, Alexa, to access health-care data, such as the status of a prescription or a blood-sugar reading; it will build a 3-million-square-foot cargo airport outside Cincinnati; it will make next-day delivery standard for members of its Prime service; it will start a new chain of grocery stores, in addition to Whole Foods, which it already owns; it will stream Major League Baseball games; it will launch more than 3,000 satellites into orbit to supply the world with high-speed internet.

Bezos's ventures are by now so large and varied that it is difficult to truly comprehend the nature of his empire, much less the end point of his ambitions. What exactly does Jeff Bezos want? Or, to put it slightly differently, what does he believe? Given his power over the world, these are not small questions. Yet he largely keeps his intentions to himself; many longtime colleagues can't recall him ever expressing a political opinion. To replay a loop of his interviews from Amazon's quarter century of existence is to listen to him retell the same unrevealing anecdotes over and over.

To better understand him, I spent five months speaking with current and former Amazon executives, as well as people at the company's rivals and scholarly observers. Bezos himself declined to participate in this story, and current employees would speak to me only off the record. Even former staffers largely preferred to remain anonymous, assuming that they might eventually wish to work for a business somehow entwined with Bezos's sprawling concerns.

In the course of these conversations, my view of Bezos began to shift. Many of my assumptions about the man melted away; admiration jostled with continued unease. And I was left with a new sense of his endgame.

Bezos loves the word *relentless*—it appears again and again in his closely read annual letters to shareholders—and I had always assumed that his aim was domination for its own sake. In an era that celebrates corporate gigantism, he seemed determined to be the biggest of them all. But to say that Bezos's ultimate goal is dominion over the planet is to misunderstand him. His ambitions are not bound by the gravitational pull of the Earth.

BEFORE BEZOS SETTLED on Amazon.com, he toyed with naming his unlaunched store MakeItSo.com. He entertained using the phrase because he couldn't contain a long-standing enthusiasm. The rejected moniker was a favored utterance of a man Bezos idolizes: the captain of the starship USS Enterprise-D, Jean-Luc Picard.

Bezos is unabashed in his fanaticism for *Star Trek* and its many spin-offs. He has a holding company called Zefram, which honors the character who invented warp drive. He persuaded the makers of the film *Star Trek Beyond* to give him a cameo as a Starfleet official. He named his dog Kamala, after a woman who appears in an episode as Picard's "perfect" but unattainable

OPENING SPREAD: MICHAEL KOVAC/GETTY

mate. As time has passed, Bezos and Picard have physically converged. Like the interstellar explorer, portrayed by Patrick Stewart, Bezos shaved the remnant strands on his high-gloss pate and acquired a cast-iron physique. A friend once said that Bezos adopted his strenuous fitness regime in anticipation of the day that he, too, would journey to the heavens.

When reporters tracked down Bezos's high-school girlfriend, she said, "The reason he's earning so much money is to get to outer space." This assessment hardly required a leap of imagination. As the valedictorian of Miami Palmetto Senior High School's class of 1982, Bezos used his graduation speech to unfurl his vision for humanity. He dreamed aloud of the day when millions of his fellow earthlings would relocate to colonies in space. A local newspaper reported that his intention was "to get all people off the Earth and see it turned into a huge national park."

Most mortals eventually jettison teenage dreams, but Bezos remains passionately committed to his, even as he has come to control more and more of the here and now. Critics have chided him for philanthropic stinginess, at least relative to his wealth, but the thing Bezos considers his primary humanitarian contribution isn't properly charitable. It's a profit-seeking company called Blue Origin, dedicated to fulfilling the prophecy of his high-school graduation speech. He funds that venture—which builds rockets, rovers, and the infrastructure that permits voyage beyond the Earth's atmosphere—by selling about $1 billion of Amazon stock each year. More than his ownership of his behemoth company or of *The Washington Post*—and more than the $2 billion he's pledged to nonprofits working on homelessness and education for low-income Americans—Bezos calls Blue Origin his "most important work."

He considers the work so important because the threat it aims to counter is so grave. What worries Bezos is that in the coming generations the planet's growing energy demands will outstrip its limited supply. The danger, he says, "is not necessarily extinction," but stasis: "We will have to stop growing, which I think is a very bad future." While others might fret that climate change will soon make the planet uninhabitable, the billionaire wrings his hands over the prospects of diminished growth. But the scenario he describes is indeed grim. Without enough energy to go around, rationing and starvation will ensue. Over the years, Bezos has made himself inaccessible to journalists asking questions about Amazon. But he shares his faith in space colonization with a preacher's zeal: "We have to go to space to save Earth."

At the heart of this faith is a text Bezos read as a teen. In 1976, a Princeton physicist named Gerard K. O'Neill wrote a populist case for moving into space called *The High Frontier*, a book beloved by sci-fi geeks, NASA functionaries, and aging hippies. As a Princeton student, Bezos attended O'Neill seminars and ran the campus chapter of Students for the Exploration and Development of Space. Through Blue Origin, Bezos is developing detailed plans for realizing O'Neill's vision.

The professor imagined colonies housed in miles-long cylindrical tubes floating between Earth and the moon. The tubes would sustain a simulacrum of life back on the mother planet, with soil, oxygenated air, free-flying birds, and "beaches lapped by waves." When Bezos describes these colonies—and presents artists' renderings of them—he sounds almost rapturous. "This is Maui on its best day, all year long. No rain, no storms, no earthquakes." Since the colonies would allow the human population to grow without any earthly constraints, the species would flourish like never before: "We can have a trillion humans in the solar system, which means we'd have a thousand Mozarts and a thousand Einsteins. This would be an incredible civilization."

Bezos worries that in the coming generations the planet's growing energy demands will outstrip its limited supply. "We have to go to space to save Earth," he says.

Bezos rallies the public with passionate peroration and convincing command of detail. Yet a human hole remains in his presentation. Who will govern this new world? Who will write its laws? Who will decide which earthlings are admitted into the colonies? These questions aren't explicitly answered, except with his fervent belief that entrepreneurs, those in his own image, will shape the future. And he will do his best to make it so. With his wealth, and the megaphone that it permits him, Bezos is attempting to set the terms for the future of the species, so that his utopia can take root.

In a way, Bezos has already created a prototype of a cylindrical tube inhabited by millions, and it's called Amazon.com. His creation is less a company than an encompassing system. If it were merely a store that sold practically all salable goods—and delivered them within 48 hours—it would still be the most awe-inspiring creation in the history of American business. But Amazon is both that tangible company and an abstraction far more powerful.

Bezos's enterprise upends long-held precepts about the fundamental nature of capitalism—especially an idea enshrined by the great Austrian economist Friedrich Hayek. As World War II drew to its close, Hayek wrote the essay "The Use of Knowledge in Society," a seminal indictment of centralized planning. Hayek argued that no bureaucracy could ever match the miracle of markets, which spontaneously and efficiently aggregate the knowledge of a society. When markets collectively set a price, that price reflects the discrete bits of knowledge scattered among executives, workers, and consumers. Any governmental attempt to replace this organic apparatus—to set prices unilaterally, or even to understand the disparate workings of an economy—is pure hubris.

Amazon, however, has acquired the God's-eye view of the economy that Hayek never imagined any single entity could hope to achieve. At any moment, its website has more than 600 million items for sale and more than 3 million vendors selling them. With its history of past purchases, it has collected the world's most comprehensive catalog of consumer desire, which allows it to anticipate both individual and collective needs. With its logistics business—and its growing network of trucks and planes—it has an understanding of the flow of goods around the world. In other

words, if Marxist revolutionaries ever seized power in the United States, they could nationalize Amazon and call it a day.

What makes Amazon so fearsome to its critics isn't purely its size but its trajectory. Amazon's cache of knowledge gives it the capacity to build its own winning version of an astonishing array of businesses. In the face of its growth, long-dormant fears of monopoly have begun to surface—and Amazon has reportedly found itself under review by the Federal Trade Commission and the Department of Justice. But unlike Facebook, another object of government scrutiny, Bezos's company remains deeply trusted by the public. A 2018 poll sponsored by Georgetown University and the Knight Foundation found that Amazon engendered greater confidence than virtually any other American institution. Despite Donald Trump's jabs at Bezos, this widespread faith in the company makes for a source of bipartisan consensus, although the Democrats surveyed were a touch more enthusiastic than the Republicans were: They rated Amazon even more trustworthy than the U.S. military. In contrast to the dysfunction and cynicism that define the times, Amazon is the embodiment of competence, the rare institution that routinely works.

All of this confidence in Bezos's company has made him a singular figure in the culture, which, at times, regards him as a flesh-and-blood Picard. If "Democracy dies in darkness"—the motto of the Bezos-era *Washington Post*—then he is the rescuer of the light, the hero who reversed the terminal decline of Woodward and Bernstein's old broadsheet. When he wrote a Medium post alleging that the *National Enquirer* had attempted to extort him, he was hailed for taking a stand against tabloid sleaze and cyberbullying.

As Amazon has matured, it has assumed the trappings of something more than a private enterprise. It increasingly poses as a social institution tending to the common good. After it earned derision for the alleged treatment of its workers—some warehouse employees reported feeling pressured to forgo bathroom breaks to meet productivity targets, to cite just one example—it unilaterally raised its minimum wage to $15 an hour in the U.S., then attempted to shame competitors that didn't follow suit. (Amazon says that employees are allowed to use the bathroom whenever they want.) As technology has reshaped its workforce, Amazon has set aside $700 million to retrain about a third of its U.S. employees for roles with new demands.

These gestures are partly gambits to insulate the company's reputation from accusations of rapaciousness. But they also tie Amazon to an older conception of the corporation. In its current form, Amazon harkens back to Big Business as it emerged in the postwar years. When Charles E. Wilson, the president of General Motors, was nominated to be secretary of defense in 1953, he famously told a Senate confirmation panel, "I thought what was good for our country was good for General Motors, and vice versa." For the most part, this was an aphorism earnestly accepted as a statement of good faith. To avert class warfare, the Goliaths of the day recognized unions; they bestowed health care and pensions upon employees. Liberal eminences such as John K. Galbraith hailed the corporation as the basis for a benign social order. Galbraith extolled the social utility of the corporation because he believed that it could be domesticated and harnessed to serve interests other than its own bottom line. He believed businesses behave beneficently when their self-serving impulses are checked by "countervailing power" in the form of organized labor and government.

Of course, those powers have receded. Unions, whose organizing efforts Amazon has routinely squashed, are an unassuming nub of their former selves; the regulatory state is badly out of practice. So while Amazon is trusted, no countervailing force has the inclination or capacity to restrain it. And while power could amass in a more villainous character than Jeff Bezos, that doesn't alleviate the anxiety that accompanies such concentration. Amazon might be a vast corporation, with more than 600,000 employees, but it is also the extension of one brilliant, willful man with an incredible knack for bending the world to his values.

2.0

After Jackie Bezos's shotgun marriage to a member of a traveling unicyclist troupe dissolved, she dedicated herself to their only progeny. The teenage mother from Albuquerque became her son's intellectual champion. She would drive him 40 miles each day so that he could attend an elementary school for high-testing kids in Houston. When a wait list prevented him from entering the gifted track in middle school, she wheedled bureaucrats until they made an exception. Over the course of Bezos's itinerant childhood, as his family traversed the Sun Belt of the '70s, Jackie encouraged her son's interest in tinkering by constantly shuttling him to RadioShack.

"I have always been academically smart," Bezos told an audience in Washington, D.C., last year. This was a sentiment ratified by the world as he ascended the meritocracy. At Princeton, he flirted with becoming a theoretical physicist. On Wall Street, he joined D. E. Shaw, arguably the brainiest and most adventurous hedge fund of the '90s. The firm would send unsolicited letters to dean's-list students at top universities, telling them: "We approach our recruiting in unapologetically elitist fashion."

The computer scientist who founded the firm, David E. Shaw, had dabbled in the nascent internet in the '80s. This provided him with unusual clarity about the coming revolution and its commercial implications. He anointed Bezos to seek out investment opportunities in the newly privatized medium—an exploration that led Bezos to his own big idea.

When Bezos created Amazon in 1994, he set out to build an institution like the ones that had carried him through the first three decades of his life. He would build his own aristocracy of brains, a place where intelligence would rise to the top. Early on, Bezos asked job candidates for their SAT scores. The company's fifth employee, Nicholas Lovejoy, later told *Wired* that interviews would take the form of a Socratic test. Bezos would probe logical acuity with questions like *Why are manhole covers round?* According to Lovejoy, "One of his mottos was that every time we hired someone, he or she should raise the bar for the next hire, so that the overall talent pool was always improving." When Bezos thought about talent, in other words, he was self-consciously in a Darwinian mode.

By the logic of natural selection, it was hardly obvious that a bookstore would become the dominant firm in the digital economy. From Amazon's infancy, Bezos mastered the art of coyly deflecting questions about where he intended to take his company. But back in his hedge-fund days, he had kicked around the idea of an "everything store" with Shaw. And he always conveyed the impression of having grand plans—a belief that the

fiction aisle and the self-help section might serve as the trailhead to commanding heights.

In the vernacular, Amazon is often lumped together with Silicon Valley. At its spiritual center, however, Amazon is a retailer, not a tech company. Amazon needed to elbow its way into a tightly packed and unforgiving industry, where it faced entrenched entities such as Barnes & Noble, Walmart, and Target. In mass-market retail, the company with the thinnest margin usually prevails, and a soft December can ruin a year. Even as Bezos prided himself on his capacity for thinking far into the future, he also had to worry about the prospect of tomorrow's collapse. At tightfisted Amazon, there were no big bonuses at year's end, no business-class flights for executives on long hauls, no employee kitchens overflowing with protein bars.

Bezos was hardly a mellow leader, especially in the company's early days. To mold his organization in his image, he often lashed out at those who failed to meet his high standards. The journalist Brad Stone's indispensable book about the company, *The Everything Store*, contains a list of Bezos's cutting remarks: "Are you lazy or just incompetent?" "This document was clearly written by the B team. Can someone get me the A-team document?" "Why are you ruining my life?" (Amazon says this account is not reflective of Bezos's leadership style.) This was the sarcastic, demeaning version of his endless questioning. But Bezos's waspish intelligence and attention to detail—his invariable focus on a footnote or an appendix—elicited admiration alongside the dread. "If you're going in for a Bezos meeting, you're preparing as if the world is going to end," a former executive told me. "You're like, *I've been preparing for the last three weeks. I've asked every damn person that I know to think of questions that could be asked*. Then Bezos will ask you the one question you hadn't considered."

The growth of the company—which already brought in nearly $3 billion in revenue in its seventh year of existence—prodded Bezos to adapt his methods. He created a new position, technical adviser, to instill his views in top managers; the technical advisers would shadow the master for at least a year, and emerge as what executives jokingly refer to as "Jeff-bots." His managerial style, which had been highly personal, was codified in systems and procedures. These allowed him to scale his presence so that even if he wasn't sitting in a meeting, his gestalt would be there.

In 2002, Amazon distilled Bezos's sensibility into a set of Leadership Principles, a collection of maxims including "Invent and Simplify," "Bias for Action," and "Have Backbone; Disagree and Commit." To an outside ear, these sound too hokey to be the basis for fervent belief. But Amazonians, as employees call themselves, swear by them. The principles, now 14 in number, are the subject of questions asked in job interviews; they are taught in orientations; they are the qualities on which employees are judged in performance reviews.

Of all the principles, perhaps the most sacrosanct is "Customer Obsession"—the commandment to make decisions only with an eye toward pleasing the consumer, rather than fixating on competitors—a pillar of faith illustrated by the Great Lube Scandal. About 10 years ago, Bezos became aware that Amazon was sending emails to customers suggesting the purchase of lubricants. This fact made him apoplectic. If such an email arrived at work, a boss might glimpse it. If it arrived at home, a child might pose uncomfortable questions. Bezos ordered the problem solved and threatened to shut down Amazon's email promotions in their entirety if it wasn't. Kristi Coulter, who served as the head of worldwide editorial and site merchandising, led a group that spent weeks compiling a list of verboten products, which Bezos's top deputies then reviewed. She told me, "It wasn't just, like, hemorrhoid cream, or lube, it was hair color, any kind of retinol. They were so conservative about what they thought would be embarrassing. Even tooth-whitening stuff, they were like, 'No. That could be embarrassing.'"

To climb Amazon's organizational chart is to aspire to join the inner sanctum at the very peak, called the S-Team ("the senior team"). These are the 17 executives who assemble regularly with Bezos to debate the company's weightiest decisions. Bezos treats the S-Team with familial affection; its members come closest to being able to read his mind. The group has absorbed the Bezos method and applies it to the corners of the company that he can't possibly touch. According to James Thomson, a manager who helped build Amazon

Jeff Bezos in Seattle in 1998. It was hardly obvious that a bookstore would become the dominant firm in the digital economy, but Bezos always believed that the fiction aisle might serve as the trailhead to commanding heights.

REX RYSTEDT/LIFE IMAGES COLLECTION/GETTY

> **In contrast to the dysfunction and cynicism that define the times, Amazon is the embodiment of competence, the rare institution that routinely works.**

Marketplace, where anyone can sell new or used goods through the website, "At most companies, executives like to show how much they know. At Amazon, the focus is on asking the right question. Leadership is trained to poke holes in data."

Once an executive makes it to the S-Team, he remains on the S-Team. The stability of the unit undoubtedly provides Bezos a measure of comfort, but it also calcifies this uppermost echelon in an antiquated vision of diversity. The S-Team has no African Americans; the only woman runs human resources. Nor does the composition of leadership change much a step down the ladder. When CNBC examined the 48 executives who run Amazon's core businesses (including retail, cloud, and hardware), it found only four women.

One former team leader, who is a person of color, told me that when top executives hear the word *diversity*, they interpret it to mean "the lowering of standards." "It's this classic libertarian thinking," Coulter told me. "They think Amazon is a meritocracy based on data, but who's deciding what gets counted and who gets to avail themselves of the opportunity? If VP meetings are scheduled at 7 a.m., how many mothers can manage that?"

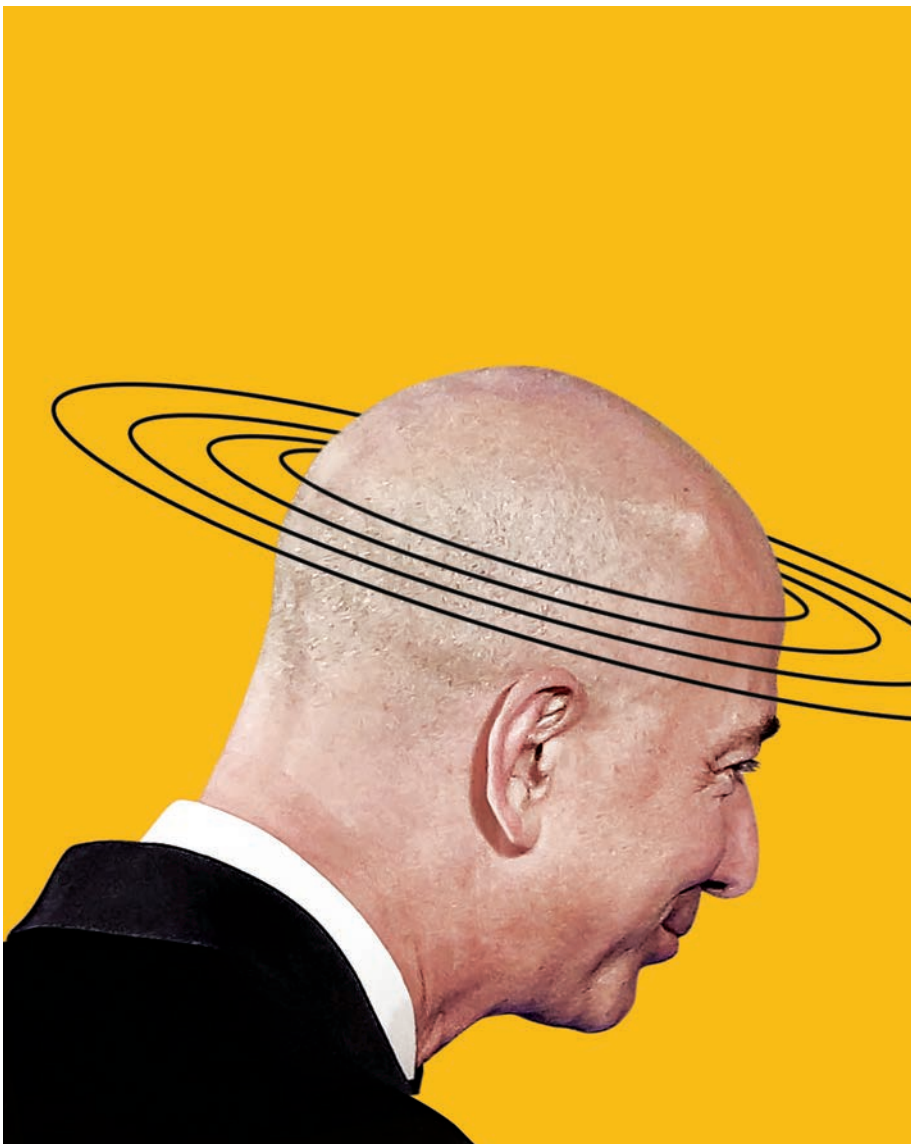
(Amazon disputes the methodology CNBC used to tally women in its senior leadership ranks. "There are dozens of female executives that play a critical role in Amazon's success," a spokesman told me in an email. He cited the company's generous parental-leave policy, a commitment to flexible scheduling, and the fact that more than 40 percent of its global workforce is female as evidence of its pursuit of gender equity. He also said that its Leadership Principles insist that employees "see diverse perspectives.")

The meritocrat's blind spot is that he considers his place in the world well earned by dint of intelligence and hard work. This belief short-circuits his capacity to truly listen to critics. When confronted about the composition of the S-Team in a company-wide meeting two years ago, Bezos seemed to dismiss the urgency of the complaint. According to CNBC, he said that he expected "any transition there to happen very incrementally over a long period of time." The latest addition to the group, made this year, was another white male.

BEZOS BUILT HIS ORGANIZATION to be an anti-bureaucracy. To counter the tendency of groups to bloat, he instituted something called "two-pizza teams." (Like Bezos's other managerial innovations, this sounds like a gimmick, except that advanced engineers and economists with doctorates accept it as the organizing principle of their professional lives.) According to the theory, teams at Amazon should ideally be small enough to be fed with two pizzas.

In its warehouses, Amazon has used video games to motivate workers—the games, with names like MissionRacer, track output and pit workers against one another, prodding them to move faster. The two-pizza teams represent a more subtle, white-collar version of this gamification. The small teams instill a sense of ownership over projects. But employees placed on such small teams can also experience a greater fear of failure, because there's no larger group in which to hide or to more widely distribute blame.

Amazon has a raft of procedures to guide its disparate teams. Bezos insists that plans be pitched in six-page memos, written in full sentences, a form he describes as "narrative." This practice emerged from a sense that PowerPoint had become a tool for



disguising fuzzy thinking. Writing, Bezos surmised, demands a more linear type of reasoning. As John Rossman, an alumnus of the company who wrote a book called *Think Like Amazon*, described it, "If you can't write it out, then you're not ready to defend it." The six-pagers are consumed at the beginning of meetings in what Bezos has called a "study hall" atmosphere. This ensures that the audience isn't faking its way through the meeting either. Only after the silent digestion of the memo—which can be an anxiety-inducing stretch for its authors—can the group ask questions about the document.

Most teams at Amazon are hermetic entities; required expertise is embedded in each group. Take Amazon's robust collection of economists with doctorates. In the past several years, the company has hired more than 150 of them, which makes Amazon a far larger employer of economists than any university in the country. Tech companies such as Microsoft and Uber have also hired economists, although not as many. And while other companies have tended to keep them in centralized units, often working on forecasting or policy issues, Amazon takes a different approach. It distributes economists across a range of teams, where they can, among other things, run controlled experiments that permit scientific, and therefore effective, manipulation of consumer behavior.

Relentless might be the most Amazonian word, but Bezos also talks about the virtues of wandering. "Wandering is an essential counterbalance to efficiency," he wrote in a letter to shareholders this year. When I spoke with workers based at Amazon's Seattle headquarters, they said what they appreciated most about their employer was the sense of intellectual autonomy it allowed. Once they had clearly articulated a mission in an approved six-pager, they typically had wide latitude to make it happen, without having to fight through multiple layers of approval. The wandering mentality has also helped Amazon continually expand into adjacent businesses—or businesses that seem, at first, unrelated. Assisted by the ever growing consumer and supplier data it collects, and the insights into human needs and human behavior it is constantly uncovering, the company keeps finding new opportunities for growth.

What is Amazon, aside from a listing on Nasdaq? This is a flummoxing question. The company is named for the world's most voluminous river, but it also has tributaries shooting out in all directions. *Retailer* hardly captures the company now that it's also a movie studio, an artificial-intelligence developer, a device manufacturer, and a web-services provider. But to describe it as a conglomerate isn't quite right either, given that so many of its businesses are tightly integrated or eventually will be. When I posed the question to Amazonians, I got the sense that they considered the company to be a paradigm—a distinctive approach to making decisions, a set of values, the Jeff Bezos view of the world extended through some 600,000 employees. This description, of course, means that the company's expansion has no natural boundary; no sector of the economy inherently lies beyond its core competencies.

TAYLOR HILL/GETTY

3.0

In late 2012, Donald Graham prepared to sell his inheritance, *The Washington Post*. He wanted to hand the paper over to someone with pockets deep enough to hold steady through the next recession; he wanted someone techie enough to complete the paper's digital transition; above all, he wanted someone who grasped the deeper meaning of stewardship. Graham came up with a shortlist of ideal owners he would pursue, including the financier David M. Rubenstein, former New York City Mayor Michael Bloomberg, eBay founder Pierre Omidyar, and Bezos.

The last of the names especially enticed Graham. That January, he had breakfast with his friend and adviser Warren Buffett, who also happened to be a shareholder in the *Post*. Buffett mentioned that he considered Bezos the "best CEO in the United States"—hardly an unconventional opinion, but Graham had never heard it from Buffett before. After the breakfast, Graham set out to better understand Bezos's ideological predilections. "I did a primitive Google search and found nothing, as close to nothing for somebody with that kind of wealth. I didn't know what his politics were," he told me. This blankness suggested to Graham the stuff of an ideal newspaper owner.

Graham dispatched an emissary to make the pitch. It was a polite but hardly promising conversation: Bezos didn't rule out the possibility of bidding for the *Post*, but he didn't display any palpable enthusiasm, either. The fact that he dropped the subject for several months seemed the best gauge of his interest. While Bezos ghosted Graham, Omidyar, the most enthusiastic of the bidders, continued to seek the prize.

Bezos's past pronouncements may not have revealed partisanship, but they did suggest little appetite for stodgy institutionalism. Like so many CEOs of the era, Bezos figured himself an instrument of creative destruction, with little sympathy for the destroyed. "Even well-meaning gatekeepers slow innovation," he wrote in his 2011 letter to shareholders. He was critiquing New York book publishers, whose power Amazon had aimed to diminish. But he harbored a similarly dim view of self-satisfied old-media institutions that attempted to preserve their cultural authority.

It therefore came as a surprise when, after months of silence, Bezos sent a three-sentence email expressing interest in the *Post*. Graham made plans to lunch with Bezos in Sun Valley, Idaho, where they would both be attending Allen & Company's summer conference. Over sandwiches that Graham brought back to his rental, the old proprietor made his preferred buyer a counterintuitive pitch: He explained all the reasons owning a newspaper was hard. He wanted Bezos to know that a newspaper was a self-defeating vehicle for promoting business interests or any preferred agenda. The conversation was a tutorial in the responsibilities of the elite, from a distinguished practitioner.

Graham didn't need to plead with Bezos. In Sun Valley, they hardly haggled over terms. "We had brunch twice, and at the end we shook hands, unlike almost any deal I've ever made in business," Graham told me. The man who decried gatekeepers was suddenly the keeper of one of the nation's most important gates.

Buying the *Post* was not a financially momentous event in the life of Jeff Bezos. In addition to the billions in Amazon stock he owned, he had quietly invested in Google and Uber in their infancy. The Bezos imprimatur, the young companies had understood, would burnish their chances with any other would-be

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investor. (Uber's initial public offering alone earned him an estimated $400 million earlier this year, far more than he paid for the *Post* in 2013.)

But the purchase *was* a turning point in Bezos's reputational history—and realigned his sense of place in the world. On the eve of the acquisition, Amazon's relationship with New York publishing was contentious. The friendly guy who professed his love of Kazuo Ishiguro novels and had created a cool new way to buy books was now seen in some quarters as an enemy of literary culture and a successor to the monopolist Rockefeller. Not long before the acquisition, he had written a memo, obtained by Brad Stone, titled "Amazon.love," asking the S-Team to ponder how the company could avoid becoming as feared as Walmart, Goldman Sachs, and Microsoft. Although he never justified the purchase of the *Post* as a response to his anxieties about Amazon's image—and, of course, his own—the question must have been on his mind as he considered the opportunity. To save a civically minded institution like the *Post* was a chance to stake a different legacy for himself.

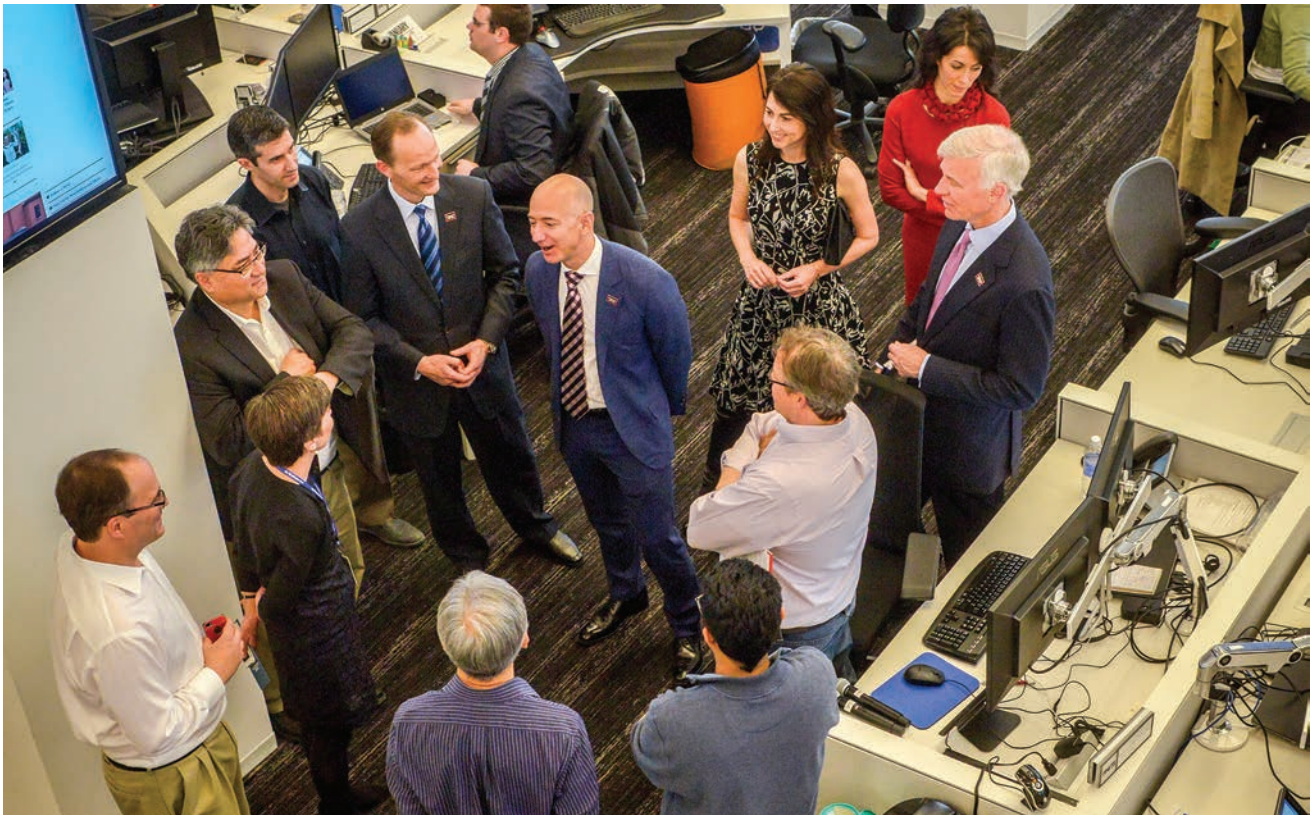
Bezos keeps the *Post* structurally separate from Amazon—his family office monitors the business of the paper—but he runs it in the same expansionist spirit as he does his company. He vowed to put every dollar of profit back into the enterprise. In the six years of his ownership, the *Post* newsroom has grown from 500 to just over 850.

Despite his investments in the institution, Bezos's transition to Washington, D.C., was halting and awkward. It took him several months to visit the *Post* newsroom and try to allay rank-and-file nervousness about the intentions of the new owner. When the *Post*'s great editor Ben Bradlee died several months into his regime, he decided to attend the funeral only after Bob Woodward explained its spiritual significance. His attachment to the paper didn't seem to acquire emotional depth until he sent his jet to retrieve the reporter Jason Rezaian from Iran, where he'd been imprisoned for 18 months, and personally accompanied him home. The press hailed Bezos for displaying such a strong interest in the fate of his reporter, a taste of how media extol those they regard as their own saviors.

It may have taken him a moment to realize that Washington would be a new center of his life, but once he did, he rushed to implant himself there. In 2016, he paid $23 million to buy the site of a former museum just down the block from Woodrow Wilson's old home. The museum had joined together two mansions, one of which had been designed by John Russell Pope, the architect of the Thomas Jefferson Memorial. Bezos kept one of the buildings as his residential quarters and set about renovating the other for the sake of socializing, a space that seemed to self-consciously recall Katharine Graham's old salon, except with geothermal heat. *Washingtonian* magazine, which obtained Bezos's blueprints, predicted that, once complete, it will become "a veritable Death Star of Washington entertaining."

WHILE BEZOS MADE HIMSELF at home in Washington, so did his company, but on its own terms. The Obama years were a boom time for Big Tech. Executives regularly shuffled through the White House. Visitor logs record that no American company visited more often than Google. Silicon Valley hurled itself into policy debates with its characteristic pretense of idealism, even as it began to hire Brioni-clad influence peddlers. It

Bezos visits the *Washington Post* newsroom in 2016. The purchase of the paper was a turning point in his reputational history, a chance to stake a legacy for himself as a defender of a civically minded institution.



BILL O'LEARY/*THE WASHINGTON POST*/GETTY

was, by its own account, battling for nothing less than the future of the free internet, a fight to preserve net neutrality and prevent greedy telecoms from choking the liberatory promise of the new medium.

As the tech companies invested heavily in policy, Amazon would occasionally cheer them on and join their coalitions. But mostly it struck a pose of indifference. Amazon didn't spend as much on lobbyists as most of its Big Tech brethren did, at least not until the late Obama years. Amazon seemed less concerned about setting policy than securing lucrative contracts. It approached government as another customer to be obsessed over.

Given the way Democrats now bludgeon Big Tech, it's hard to remember how warmly Barack Obama embraced the industry, and how kindly Big Tech reciprocated with campaign donations. But there was a less visible reason for the alliance: As the debacle of healthcare.gov graphically illustrated, Obama badly needed a geek squad. He installed the nation's first-ever chief technology officer, and the administration began to importune the federal bureaucracy to upload itself to the cloud, a move it promised would save money and more effectively secure sensitive material.

Amazon has grown enormous, in part, by shirking tax responsibility. The government rewards this failure with massive contracts, which will make the company even bigger.

Cloud First was the official name of the policy. Amazon had nothing to do with its inception, but it stood to make billions from it. It had wandered into the cloud-computing business long before its rivals. Amazon Web Services is, at its most elemental, a constellation of server farms around the world, which it rents at low cost as highly secure receptacles for data. Apple, the messaging platform Slack, and scores of start-ups all reside on AWS.

If retail was a maddeningly low-margin business, AWS was closer to pure profit. And Amazon had the field to itself. "We faced no like-minded competition for seven years. It's unbelievable," Bezos boasted last year. AWS is such a dominant player that even Amazon's competitors, including Netflix, house data with it—although Walmart resolutely refuses, citing anxieties about placing its precious secrets on its competitor's servers. Walmart is more suspicious than the intelligence community: In 2013, the CIA agreed to spend $600 million to place its data in Amazon's cloud.

Other Big Tech companies have fretted about the morality of becoming entangled with the national-security state. But Bezos has never expressed such reservations. His grandfather developed missile-defense systems for the Pentagon and supervised nuclear labs. Bezos grew up steeped in the romance of the Space Age, a time when Big Business and Big Government linked arms to achieve great national goals. Besides, to be trusted with the secrets of America's most secretive agency gave Amazon a talking point that it could take into any sales pitch—the credentials that would recommend it to any other government buyer.

One of Amazon's great strengths is its capacity to learn, and it eventually acclimated itself to the older byways of Washington clientelism, adding three former congressmen to its roster of lobbyists. (Amazon's spending on lobbying has increased by almost 470 percent since 2012.) It also began to hire officials as they stepped out of their agencies. When the Obama administration's top procurement officer, Anne Rung, left her post, she headed straight to Amazon.

The goal wasn't just to win cloud-computing contracts. Amazon sold facial-recognition software to law-enforcement agencies and has reportedly pitched it to Immigration and Customs Enforcement. Amazon also wanted to become the portal through which government bureaus buy staples, chairs, coffee beans, and electronic devices. This wasn't a trivial slice of business; the U.S. government spends more than $50 billion on consumer goods each year. In 2017, the House of Representatives quietly passed the so-called Amazon amendment, buried within a larger appropriations bill. The provisions claimed to modernize government procurement, but also seemed to set the terms for Amazon's dominance of this business. Only after competitors grasped the significance of the amendment did a backlash slow the rush toward Amazon. (The government is preparing to run a pilot program testing a few different vendors.)

Still, government's trajectory was easy to see, especially if one looked outside the capital city. In 2017, Amazon signed an agreement with a little-known organization called U.S. Communities, with the potential to yield an estimated $5.5 billion. U.S. Communities negotiates on behalf of more than 55,000 county and municipal entities (school districts, library systems, police departments) to buy chalk, electronics, books, and the like. A 2018 report by the Institute for Local Self-Reliance documented how a growing share of the physical items that populate public spaces has come to be supplied by Amazon.

At the heart of Amazon's growing relationship with government is a choking irony. Last year, Amazon didn't pay a cent of federal tax. The company has mastered the art of avoidance, by exploiting foreign tax havens and moonwalking through the seemingly infinite loopholes that accountants dream up. Amazon may not contribute to the national coffers, but public funds pour into its own bank accounts. Amazon has grown enormous, in part, by shirking tax responsibility. The government rewards this failure with massive contracts, which will make the company even bigger.

WHAT TYPE OF EGO does Jeff Bezos possess? The president of the United States has tested his capacity for sublimation by pummeling him mercilessly. In Trump's populist morality play, "Jeff Bozo" is cast as an overlord. He crushes small businesses; he rips off the postal service; he stealthily advances corporate goals through his newspaper, which Trump misleadingly refers to as the "Amazon *Washington Post*." During the 2016 campaign, Trump vowed to use the machinery of state to flay Amazon: "If I become president, oh do they have problems." Don Graham's warnings about the downsides of newspaper ownership suddenly looked prophetic.

Bezos and his then-wife, MacKenzie, attend the 2017 *Vanity Fair* Oscars party. Bezos has immersed himself in Hollywood culture.

MIKE COPPOLA/VF17/GETTY

It's not that Bezos has always whistled past these attacks: In a countertweet, he once joked about launching Donald Trump into space. However, the nature of Bezos's business, with both government and red-state consumers, means that he would rather avoid presidential hostility.

Despite the vitriol, or perhaps because of it, Amazon hired the lobbyist Jeff Miller, a prodigious Trump fundraiser; Bezos conveys his opinions to the president's son-in-law, Jared Kushner. In 2017, Bezos won a nomination to join a panel advising the Defense Department on technology, although the swearing-in was canceled after Pentagon officials realized that he had not undergone a background check. (He never joined the panel.) One former White House aide told me, "If Trump knew how much communication Bezos has had with officials in the West Wing, he would lose his mind."

In the fall of 2017, the Pentagon announced a project called the Joint Enterprise Defense Infrastructure, or JEDI. The project would migrate the Defense Department's data to a centralized cloud, so that the agency could make better use of artificial intelligence and more easily communicate across distant battlefields. The Pentagon signaled the importance of the venture with the amount it intended to spend on it: $10 billion over 10 years. But it has the potential to be even more lucrative, since the rest of the federal government tends to follow the Pentagon's technological lead.

Firms vied ferociously to win the contract. Because Amazon was widely seen as the front-runner, it found itself on the receiving end of most of the slings. Its rivals attempted to stoke Trump's disdain for Bezos. An executive at the technology company Oracle created a flowchart purporting to illustrate Amazon's efforts, titled "A Conspiracy to Create a Ten Year DoD Cloud Monopoly." Oracle has denied slipping the graphic to the president, but a copy landed in Trump's hands.

Oracle also tried to block Amazon in court. Its filings spun a sinister narrative of Amazon infiltrating the Pentagon. A former consultant for Amazon Web Services had landed a top job in the secretary of defense's office, but at the heart of Oracle's tale was a project manager who had arrived at the Pentagon by way of Amazon named Deap Ubhi. Even as he worked in government, Ubhi tweeted: "Once an Amazonian, always an Amazonian." Oracle alleged that he stayed true to that self-description as he helped shape JEDI to favor his alma mater. (Amazon countered that dozens of people developed the contract, and that Ubhi worked on JEDI for only seven weeks, in its early stages.) When the Pentagon formally announced JEDI's specifications, only Amazon and Microsoft met them.

Ubhi's role in the project was concerning, but not enough for either a federal judge or the Pentagon to halt JEDI. There was "smoke," the judge said, but no "fire." This victory should have paved the way for Amazon. But with the Pentagon nearly set to award JEDI this summer, the president's new secretary of defense, Mark Esper, announced that he was delaying the decision and reexamining the contract. A Pentagon official told me that Trump had seen Tucker Carlson inveigh against JEDI on Fox News and asked for an explanation. Senator Marco Rubio, who received more than $5 million in campaign contributions from Oracle during the 2016 campaign cycle, called for the Pentagon to delay awarding the bid, and reportedly pressed the case in a phone call with Trump. (Rubio received a much smaller

donation from Amazon in the same period.) Trump seems to have been unable to resist a chance to stick it to his enemy, perhaps mortally imperiling Amazon's chance to add $10 billion to its bottom line.

Given Trump's motives, it's hard not to sympathize with Bezos. But Trump's spite—and the terrible precedent set by his punishment of a newspaper owner—doesn't invalidate the questions asked of Amazon. Its critics have argued that government shouldn't latch itself onto a single company, especially not with a project this important. They noted that storing all of the Pentagon's secrets with one provider could make them more vulnerable to bad actors. It could also create an unhealthy dependence on a firm that might grow complacent with its assured stream of revenue and lose its innovative edge over time.

JEDI sits within the context of larger questions about the government's relationship to Amazon. Fears that the public was underwriting the company's continued growth haunted Amazon's attempt to build a second headquarters in Queens—New York government looked like it was providing tax breaks and subsidies to the business that least needs a boost.

While Amazon's aborted move to Long Island City attracted all the attention, the building of a similar bastion just outside Washington, D.C., is more ominous. Of course, there are plenty of honorable reasons for a company to set up shop in the prosperous shadow of the Capitol. But it's hard to imagine that Amazon wasn't also thinking about its budding business with the government—an opportunity that the delay of JEDI will hardly dissuade it from pursuing. According to a Government Accountability Office survey of 16 agencies, only 11 percent of the federal government has made the transition to the cloud.

The company is following in its owner's tracks. Just as Bezos has folded himself into the fraternity of Washington power—yukking it up at the Alfalfa and Gridiron Clubs—thousands of Amazon implants will be absorbed by Washington. Executives will send their kids to the same fancy schools as journalists, think-tank fellows, and high-ranking government officials. Amazonians will accept dinner-party invites from new neighbors. The establishment, plenty capacious, will assimilate millionaire migrants from the other Washington. Amazon's market power will be matched by political power; the interests of the state and the interests of one enormous corporation will further jumble—the sort of combination that has, in the past, never worked out well for democracy.

4.0

Jeff Bezos was with his people, the feted guest at the 2018 meeting of the National Space Society. The group awarded him a prize it could be sure he would appreciate: the Gerard K. O'Neill Memorial Award for Space Settlement Advocacy. After a dinner in his honor, Bezos sat onstage to chat with an editor from *GeekWire*. But before the discussion could begin, Bezos interjected a question: "Does anybody here in this audience watch a TV show called *The Expanse*?"

The question pandered to the crowd, eliciting applause, hoots, and whistles. *The Expanse*, which had been broadcast on the Syfy channel, is about the existential struggles of a space colony, set in the far future, based on novels that Bezos adores. Despite the militancy of its devoted fans, Syfy had canceled *The Expanse*. Angry protests had ensued. A plane had flown over an Amazon office in Santa Monica, California, with a banner urging the company to pick up the show.

As the Space Society's exuberant reaction to Bezos's first question began to wane, Bezos juiced the crowd with another: "Do you guys know that the cast of *The Expanse* is here in the room?" He asked the actors to stand. From his years overseeing a movie studio, Bezos has come to understand the dramatic value of pausing for a beat. "Ten minutes ago," he told the room, "I just got word that *The Expanse* is saved." And, in fact, he was its benefactor. Invoking the name of the spaceship at the center of the series, he allowed himself to savor the fist-pumping euphoria that surrounded him. "The Rocinante is safe."

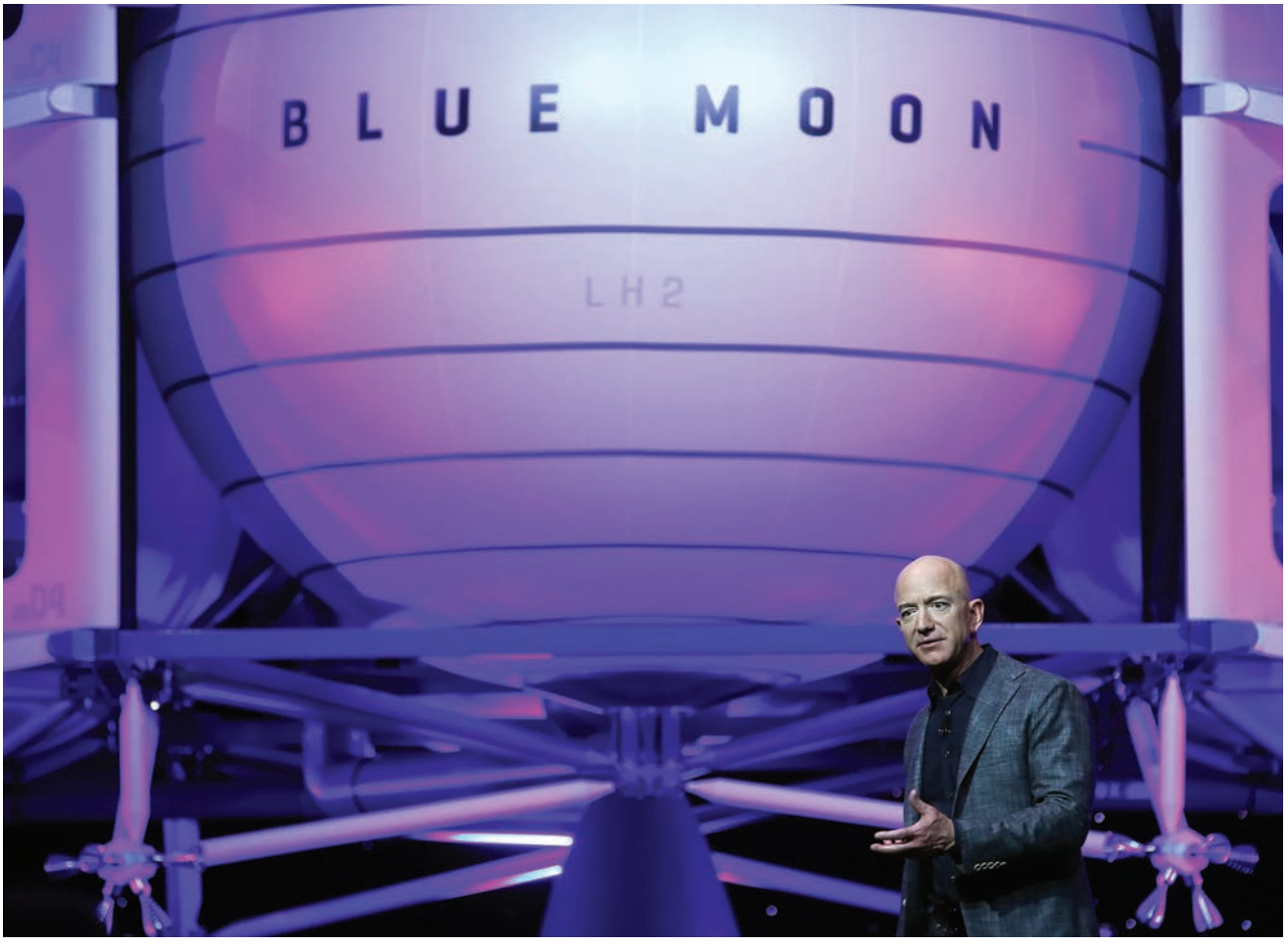
The Expanse was one small addition to Bezos's Hollywood empire, which will soon be housed in the old Culver Studios, where Hitchcock once filmed *Rebecca* and Scorsese shot *Raging Bull*. Amazon will spend an estimated $5 billion to $6 billion on TV shows and movies this year.

When Bezos first announced Amazon's arrival in Hollywood, he bluntly stated his revolutionary intent. He vowed to create "a completely new way of making movies," as he put it to *Wired*. Amazon set up a page so that anyone, no matter their experience, could submit scripts for consideration. It promised that it would let data drive the projects it commissioned—some in the company liked to describe this as the marriage of "art and science."

This bluster about Amazon's heterodox approach turned out to be unreflective of the course it would chart. When it streamed its second batch of pilots, in 2014, it analyzed viewing patterns, then set aside the evidence. Bezos walked into the green-light meeting and announced that Amazon needed to press forward with the least-watched of the five pilots: *Transparent*, a show about a transgender parent of three adult children. Bezos had read the rave reviews and made up his mind.

The critical success of *Transparent* set the template for Amazon Studios. In the early 2010s, the best talent still preferred to work for cable networks. For a new platform to pry that talent

Bezos has justified Amazon's investment in Hollywood with a quip: "When we win a Golden Globe, it helps us sell more shoes."



Bezos at a Blue Origin event this spring. He funds that venture—which builds infrastructure for extraterrestrial voyage—by selling about $1 billion of Amazon stock each year. Bezos calls Blue Origin his "most important work."

MARK WILSON/GETTY

away and attract viewers, it needed to generate attention, to schedule a noisy slate. Instead of playing to the masses, Amazon defined itself as an indie studio, catering to urban upper-middle-class tastes, although the executives in Seattle were hardly hipsters themselves. One former executive from Amazon's book-publishing arm told me, "I remember when Lena Dunham's proposal was going out, they were like, 'Who is Lena Dunham?'"

As a nascent venture, Amazon Studios was forced to hew closely to one of Amazon's Leadership Principles: Frugality. Executives rummaged through other companies' rejection piles for unconventional scripts. It bought *Catastrophe*, a cast-aside comedy, for $100,000 an episode. With the BBC, it acquired the first season of *Fleabag* for about $3 million.

Parsimony proved to be a creative stimulant. The studio's risky projects were awards magnets. Amazon won Golden Globes in all five years it was in contention. When the camera panned for black-tie reaction shots to these victories, the glare of Bezos's unmistakable scalp would jump off the screen. According to his colleagues, these awards provided him with palpable pleasure, and he thrust himself into their pursuit. To curry favor with those who cast ballots for big prizes, he hosted parties at his Beverly Hills property, which had once been owned by DreamWorks co-founder David Geffen.

Reading interviews with Bezos from back in the days of his rapid ascent, it's hard to believe that he ever imagined becoming a king of Hollywood or that leading men like Matt Damon would drape their arms over his shoulders and pose for photographs as if they were chums. When he talked about his own nerdiness, he was self-effacing, sometimes painfully so. He once told *Playboy*, "I am not the kind of person women fall in love with. I sort of grow on them, like a fungus."

When Bezos attended the 2013 *Vanity Fair* Oscars party, he didn't act as if he owned the room. Still, while Google co-founder Sergey Brin kept to a corner, Bezos and his now ex-wife, MacKenzie, circulated through the throngs. They might have clung to each other, but they also gamely engaged whoever approached them. MacKenzie once admitted to *Vogue* that her introversion made her nervous at such events, but she described her husband as a "very social guy."

Hollywood, both the business and the scene, is an intoxicant. Just as in Washington, Bezos immersed himself in a new culture. Paparazzi captured him yachting with the media mogul Barry Diller. He got to know the powerful agent Patrick Whitesell, whose wife, Lauren Sanchez, would later become Bezos's girlfriend. He began to appear at the parties of famous producers, such as Mark Burnett, the creator of *Survivor* and *The Apprentice*. As one Hollywood executive told me, "Bezos is always showing up. He would go to the opening of an envelope."

BEZOS HAS JUSTIFIED Amazon's investment in Hollywood with a quip: "When we win a Golden Globe, it helps us sell more shoes." This is an intentionally glib way of saying that Amazon is different from its competitors. It's not just a streaming service (like Netflix) or a constellation of channels (like Comcast), although it's both of those things. Amazon is an enclosed ecosystem, and it hopes that its video offerings will prove a relatively inexpensive method of convincing people to live within it.

Amazon's goal is visible in one of the metrics that it uses to judge the success of its programming. It examines the viewing habits of users who sign up for free trials of Amazon Prime, and then calculates how many new subscriptions to the service a piece of programming generates. As it deliberates over a show's fate, Amazon considers a program's production costs relative to the new subscriptions it yields. In the earliest days of the studio, nice reviews might have been enough to overcome these analytics. But Amazon has demonstrated that it will cancel even a Golden Globe winner, such as *I Love Dick*, if the metrics suggest that fate.

Back in the '60s, countercultural critiques of television regarded it as a form of narcotic that induced a state of mindless consumerism. That's not an unfair description of television's role in Prime's subscription model. Despite its own hyperrational approach to the world, Amazon wants to short-circuit the economic decision making of its consumers. Sunil Gupta, a Harvard Business School professor who has studied the company, told me, "When Amazon started Prime, it cost $79 and the benefit was two-day free shipping. Now, most smart people will do the math and they will ask, *Is $79 worth it?* But Bezos says, *I don't want you to do this math. So I'll throw in movies and other benefits that make the computation of value difficult*."

When Amazon first created Prime, in 2005, Bezos insisted that the price be set high enough that the program felt like a genuine commitment. Consumers would then set out to redeem this sizable outlay by faithfully consuming through Amazon. One hundred million Prime subscribers later, this turned out to be a masterstroke of behavioral economics. Prime members in the U.S. spend $1,400 a year on Amazon purchases, compared with $600 by nonmembers, according to a survey by Consumer Intelligence Research Partners. It found that 93 percent of Prime customers keep their subscription after the first year; 98 percent keep it after the second. Through Prime, Bezos provided himself a deep pool of cash: When subscriptions auto-renew each year, the company instantly has billions in its pockets. Bezos has turned his site into an almost unthinking habit. *The Marvelous Mrs. Maisel* and *Jack Ryan* are essential tools for patterning your existence.

As Bezos has deepened his involvement in the studio, it has begun to make bigger bets that reflect his sensibility. It spent $250 million to acquire the rights to produce a *Lord of the Rings* TV series. It reportedly paid nine figures for the services of the husband-and-wife team behind HBO's *Westworld* and has plans to adapt novels by such sci-fi eminences as Neal Stephenson and William Gibson. Bezos has involved himself in wrangling some of these projects. He made personal pleas to J. R. R. Tolkien's estate as the *Lord of the Rings* deal hung in the balance. An agent told me that Bezos has emailed two of his clients directly; Amazon executives apply pressure by invoking his name in calls: *He's asking about this project every day*.

As a kid, Bezos would spend summers at his grandfather's ranch in Cotulla, Texas, where he would help castrate bulls and install pipes. He would also watch soap operas with his grandmother. But his primary entertainment during those long days was science fiction. A fanatic of the genre had donated a robust collection to the local library, and Bezos tore his way through shelves of Isaac Asimov and Jules Verne. Describing his affinity for the novels of the sci-fi writer Iain M. Banks, he once said, "There's a utopian element to it that I find very attractive." The comment contains a flash of self-awareness. For all his technocratic instincts, for all his training as an engineer and a hedge-fund quant, a romantic impulse coexists with his rationalism, and sometimes overrides it.

It is perhaps fitting that Bezos's lone brush with scandal transpired in Hollywood. What befuddled so many of his admirers is that the scandal revealed a streak of indiscipline that doesn't mesh with the man who created a company so resolutely fixated on the long term, so committed to living its values. The expectation embedded in this confusion is unfair. While the culture has sometimes touted Bezos as a superhero, he's an earthling in the end. When he creates the terms for his business, or for society, he's no more capable of dispassion than anyone else. To live in the world of Bezos's creation is to live in a world of his biases and predilections.

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5.0

I'm loath to look back at my Amazon purchase history, decades long and filled with items of questionable necessity. The recycling bin outside my house, stuffed full of cardboard covered with arrows bent into smiles, tells enough of a story. I sometimes imagine that the smile represents the company having a good laugh at me. My fidelity to Amazon comes despite my record of criticizing it.

When we depend on Amazon, Amazon gains leverage over us. To sell through the site is to be subjected to a system of discipline and punishment. Amazon effectively dictates the number of items that a seller can place in a box, and the size of the boxes it will handle. (To adhere to Amazon's stringent requirements, a

pet-food company recently reduced its packaging by 34 percent.) Failure to comply with the rules results in a monetary fine. If a company that sells through Amazon Marketplace feels wronged, it has little recourse, because its contract relinquishes the right to sue. These are just the terms of service.

Is there even a choice about Amazon anymore? This is a question that haunts businesses far more than consumers. Companies such as Nike resisted Amazon for years; they poured money into setting up their own e-commerce sites. But even when Nike didn't sell its products on Amazon, more Nike apparel was sold on the site than any other brand. Anyone could peddle Nike shoes on Amazon without having to explain how they obtained their inventory. Because Amazon Marketplace had become a pipeline connecting Chinese factories directly to American homes, it also served as a conduit for counterfeit goods, a constant gripe of Nike's. *Wired* reported that, at one point during this year's Women's World Cup, six of Amazon's 10 best-selling jerseys appeared to be knockoffs. To have any hope of controlling this market, Nike concluded that it had no option but to join its rival. (Amazon has said that it prohibits the sale of counterfeit products.)

Ben Thompson, the founder of Stratechery, a website that vivisects Silicon Valley companies, has incisively described Amazon's master plan. He argues that the company wants to provide logistics "for basically everyone and everything," because if everything flows through Amazon, the company will be positioned to collect a "tax" on a stunning array of transactions. When Amazon sells subscriptions to premium cable channels such as Showtime and Starz, it reportedly takes anywhere from a 15 to 50 percent cut. While an item sits in an Amazon warehouse waiting to be purchased, the seller pays a rental fee. Amazon allows vendors to buy superior placement in its search results (it then marks those results as sponsored), and it has carved up the space on its own pages so that they can be leased as advertising. If a business hopes to gain access to Amazon's economies of scale, it has to pay the tolls. The man who styles himself as the heroic Jean-Luc Picard has thus built a business that better resembles Picard's archenemy, the Borg, a society-swallowing entity that informs victims, *You will be assimilated* and *Resistance is futile*.

In the end, all that is admirable and fearsome about Amazon converges. Every item can be found on its site, which makes it the greatest shopping experience ever conceived. Every item can be found on its site, which means market power is dangerously concentrated in one company. Amazon's smart speakers have the magical power to translate the spoken word into electronic action; Amazon's doorbell cameras have the capacity to send video to the police, expanding the surveillance state. With its unique management structure and crystalline articulation of values and comprehensive collection of data, Amazon effortlessly scales into new businesses, a reason to marvel and cower. Jeff Bezos has won capitalism. The question for the democracy is, are we okay with that?

The man who styles himself as the heroic Jean-Luc Picard has built a business that better resembles Picard's archenemy, the Borg, which informs its victims, *You will be assimilated* and *Resistance is futile*.

On Jeff Bezos's ranch in West Texas, there is a mountain. Burrowed inside its hollowed-out core is a cascading tower of interlaced Geneva wheels, levers, and a bimetallic spring. These innards, still not fully assembled, will move the Clock of the Long Now, a timepiece that has been designed to run with perfect accuracy for 10,000 years, with a hand that advances with each turn of the century. Bezos has supplied $42 million to fund the clock's construction, an attempt to dislodge humans from the present moment, to extend the species' sense of time. Bezos has argued that if humans "think long term, we can accomplish things that we wouldn't otherwise accomplish."

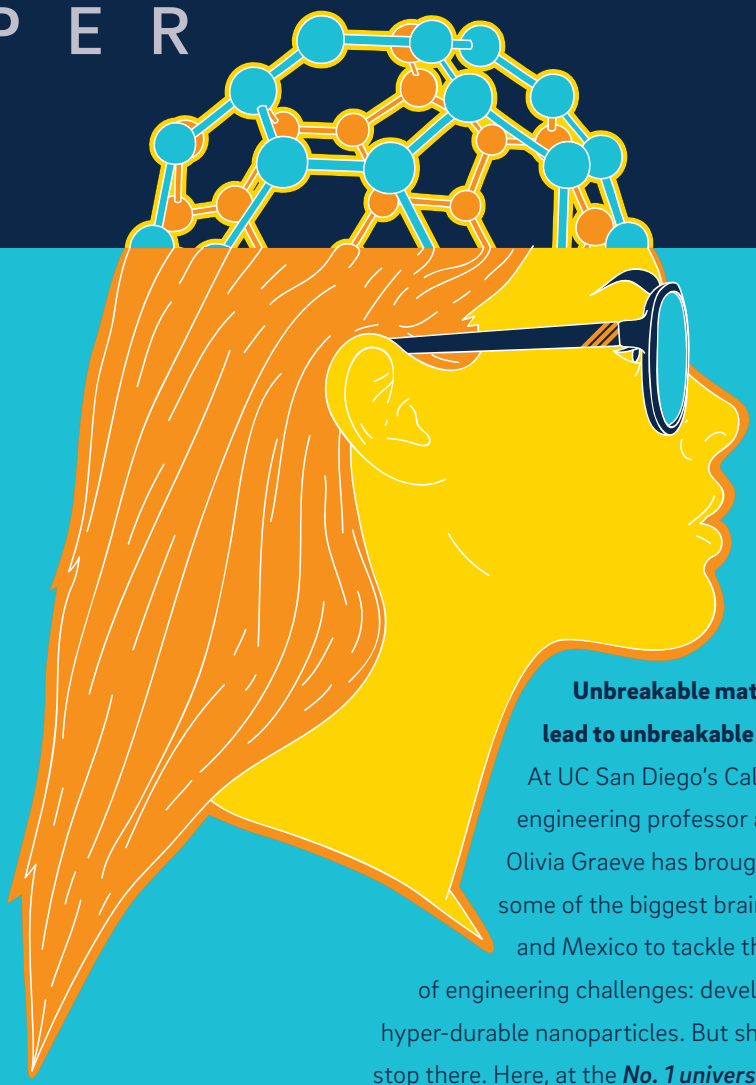
Performance reviews at Amazon ask employees to name their "superpower." An employer probably shouldn't create the expectation that its staff members possess qualities that extend beyond mortal reach, but I'm guessing Bezos would answer by pointing to his ability to think into the future. He dwells on the details without sacrificing his clarity about the ultimate destination. It's why he can simultaneously prod one company to master the grocery business while he pushes another to send astronauts to the moon by 2024, in the hope that humans will eventually mine the astronomical body for the resources needed to sustain colonies. Bezos has no hope of ever visiting one of these colonies, which wouldn't arise until long after his death, but that fact does nothing to diminish the intensity of his efforts.

That Donald Trump has picked Jeff Bezos as a foil is fitting. They represent dueling reactions to the dysfunction of so much of American life. In the face of the manipulative emotionalism of this presidency, it's hard not to pine for a technocratic alternative, to yearn for a utopia of competence and rules. As Trump runs down the country, Bezos builds things that function as promised.

Yet the erosion of democracy comes in different forms. Untrammeled private power might not seem the biggest threat when public power takes such abusive form. But the country needs to think like Bezos and consider the longer sweep of history before permitting so much responsibility to pool in one man, who, without ever receiving a vote, assumes roles once reserved for the state. His company has become the shared national infrastructure; it shapes the future of the workplace with its robots; it will populate the skies with its drones; its website determines which industries thrive and which fall to the side. His investments in space travel may remake the heavens. The incapacity of the political system to ponder the problem of his power, let alone check it, guarantees his Long Now. He is fixated on the distance because he knows it belongs to him.

Franklin Foer is a staff writer at The Atlantic.

LOOK DEEPER



Unbreakable materials lead to unbreakable bonds. At UC San Diego's CaliBaja Center, engineering professor and director Olivia Graeve has brought together some of the biggest brains in the U.S. and Mexico to tackle the smallest of engineering challenges: developing hyper-durable nanoparticles. But she doesn't stop there. Here, at the ***No. 1 university in the nation for women in STEM***, she's uniting students from both countries in a summer research program. Proof that artificial borders can't hold back the power of a common goal.

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The End of Silence

In Chandler, Arizona, on the edge of the desert, a low whine began. It seemed to be coming from everywhere. And it wouldn’t stop.

BY BIANCA BOSKER

Karthic Thallikar first noticed the noise sometime in late 2014, back when he still enjoyed taking walks around his neighborhood.

He'd been living with his wife and two kids in the Brittany Heights subdivision in Chandler, Arizona, for two years by then, in a taupe two-story house that Thallikar had fallen in love with on his first visit. The double-height ceilings made it seem airy and expansive; there was a playground around the corner; and the neighbors were friendly, educated people who worked in auto finance or at Intel or at the local high school. Thallikar loved that he could stand in the driveway, look out past a hayfield and the desert scrub of Gila River Indian land, and see the jagged pink outlines of the Estrella Mountains. Until recently, the area around Brittany Heights had been mostly farmland, and there remained a patchwork of alfalfa fields alongside open ranges scruffy with mesquite and coyotes.

In the evenings, after work, Thallikar liked to decompress by taking long walks around Brittany Heights, following Musket Way to Carriage Lane to Marlin Drive almost as far as the San Palacio and Clemente Ranch housing developments. It was during one of these strolls that Thallikar first became aware of a low, monotone hum, like a blender whirring somewhere in the distance. It was irritating, but he wrote it off. Someone's pool pump, probably. On another walk a few days later, he heard it again. *A carpet-cleaning machine?* he wondered. A few nights later, there it was again. It sounded a bit like warped music from some far-off party, but there was no thump or rhythm to the sound. Just one single, persistent note: *EHHNNNNNNNN*. Evening after evening, he realized, the sound was there—every night, on every street. The whine became a constant, annoying soundtrack to his walks.

And then it spread. In early 2015, Thallikar discovered that the hum had followed him home. This being Arizona, Thallikar and his neighbors rewarded themselves for surviving the punishing summers by spending mild winter evenings outside: grilling, reading, napping around plunge pools, dining under the twinkle of string lights. Thallikar had installed a firepit and Adirondack chairs in his backyard. But whenever he went out to cook or read, there was that damn whine—on the weekends, in the afternoon, late into the night. It was aggravating, and he felt mounting anxiety every day it continued. Where was it coming from? Would it stop? Would it get worse? He started spending more time inside.

Then it was in his bedroom. He had just closed his eyes to go to sleep one night when he heard it: *EHHNNNNNNNN*. He got up to shut the window, but that made no difference at all. "That was when I started getting concerned," he observed later. He tried sleeping with earplugs. When that didn't help, he also tied a towel around his head. When that still wasn't enough, he moved into the guest room, where the hum seemed slightly fainter. Each night, he'd will himself to sleep, ears plugged and head bandaged, but he could feel the whine in his bones, feel himself getting panicky as it droned on and on and on and on and on. The noise hummed 24 hours a day, seven days a week, like a mosquito buzzing in his ear, only louder and more persistent. He sensed it coming from everywhere at once. Thallikar began to dread going home. As the months passed, he felt like he was in a war zone. He wrote in a text message that he felt as though someone was launching "an acoustic attack" on his home.

THE EARLIEST NOISE COMPLAINT in history also concerns a bad night's sleep. The 4,000-year-old *Epic of Gilgamesh* recounts how one of the gods, unable to sleep through humanity's racket and presumably a little cranky, opts "to exterminate mankind."

Noise—or what the professionals call a "very dynamic acoustic environment"—can still provoke people to murderous extremes, especially when the emitter disturbs the receiver at home. After repeated attempts to quiet his raucous neighbor, a Fort Worth, Texas, father of two, perturbed by loud music at 2 a.m., called the police, who came, left, and returned less than an hour later, after the man had allegedly shot his neighbor three times—an incident not to be confused with the time a Houston man interrupted his neighbor's late-night party and, after a showdown over noise, shot and killed the host. In New York City, a former tour-bus driver fed up with noisy parties across the hall allegedly sought help from a hit man. A man in Pennsylvania, said to have

PHOTOGRAPHS BY CASSIDY ARAIZA

had no more trouble with the law than a traffic ticket, ambushed an upstairs couple with whom he'd had noise disputes, shooting them and then himself, and leaving behind a sticky note that read, "Can only be provoked so long before exploding." There's the man accused of threatening his noisy neighbors with a gun, the man who shot a middle-school coach after they quarreled over noise, the man who fired on a mother and daughter after griping about sounds from their apartment, the man who killed his roommate after a futile request that he "quiet down," and the woman who shot at a neighbor after being asked to turn down her music—all since the beginning of this year.

Noise is never just about sound; it is inseparable from issues of power and powerlessness. It is a violation we can't control and to which, because of our anatomy, we cannot close ourselves off. "We have all thought of killing our neighbors at some point," a soft-spoken scientist researching noise abatement told me.

As environmental hazards go, noise gets low billing. There is no Michael Pollan of sound; limiting your noise intake has none of the cachet of going paleo or doing a cleanse. When *The New Yorker* recently proposed noise pollution as the next public-health crisis, the internet scoffed. "Pollution pollution is the next big (and current) public health crisis," chided one commenter. Noise is treated less as a health risk than an aesthetic nuisance—a cause for people who, in between rounds of golf and art openings, fuss over the leaf blowers outside their vacation homes. Complaining about noise elicits eye rolls. Nothing will get you labeled a crank faster.

The Brittany Heights neighborhood in Chandler, Arizona

Scientists have known for decades that noise—even at the seemingly innocuous volume of car traffic—is bad for us. "Calling noise a nuisance is like calling smog an inconvenience," former U.S. Surgeon General William Stewart said in 1978. In the years since, numerous studies have only underscored his assertion that noise "must be considered a hazard to the health of people everywhere." Say you're trying to fall asleep. You may think you've tuned out the grumble of trucks downshifting outside, but your body has not: Your adrenal glands are pumping stress hormones, your blood pressure and heart rate are rising, your digestion is slowing down. Your brain continues to process sounds while you snooze, and your blood pressure spikes in response to clatter as low as 33 decibels—slightly louder than a purring cat.

Experts say your body does not adapt to noise. Large-scale studies show that if the din keeps up—over days, months, years—noise exposure increases your risk of high blood pressure, coronary heart disease, and heart attacks, as well as strokes, diabetes, dementia, and depression. Children suffer not only physically—18 months after a new airport opened in Munich, the blood pressure and stress-hormone levels of neighboring children soared—but also behaviorally and cognitively. A landmark study published in 1975 found that the reading scores of sixth graders whose classroom faced a clattering subway track lagged nearly a year behind those of students in quieter classrooms—a difference that disappeared once soundproofing materials were installed. Noise might also make us mean: A 1969 study suggested that test subjects exposed to noise, even the gentle fuzz of white noise, become more aggressive and more eager to zap fellow subjects with electric shocks.

In the extreme, sound becomes a weapon. Since at least the 1960s, scientists have investigated sound's potential to subdue hostage-takers, protesters, and enemy troops, against whom one expert proposed using low-frequency sound, because it apparently induces "disorientation, vomiting fits, bowel spasms, uncontrollable defecation." The U.S. military, keenly aware of noise's power to confuse and annoy, has wielded soundtracks as punishment: It tried to hurry along the Panamanian dictator Manuel Noriega's surrender by blasting his hideout with rock music (Kiss and Rick Astley made the playlist); attacked Fallujah, Iraq, while pounding heavy metal on the battlefield (Guns N' Roses, AC/DC); tortured Guantánamo detainees with a nonstop barrage of rap and theme songs (Eminem, the Meow Mix jingle); and, under the supervision of the FBI, attempted to aggravate the Branch Davidian cult of Waco, Texas, into surrender with a constant loop of Christmas carols, Nancy Sinatra, Tibetan chants, and dying rabbits. ("If they go Barry Manilow," said a hostage negotiator at the time, "it's excessive force.")

Even when not intentionally deployed for harm, the sound of drilling, barking, building, crying, singing, clomping, dancing, piano practicing, lawn mowing, and generator running becomes, to those exposed, a source of severe anguish that is entirely at odds with our cavalier attitude toward noise. "It feels like it's eating at your body," a man plagued by a rattling boiler told a reporter. A woman who was being accosted on all sides by incessant honking told me, "The noise had literally pushed me to a level of feeling

The CyrusOne data center in Chandler, Arizona

suicidal." For those grappling with it, noise is "chaos," "torture," "unbearable," "nauseating," "depressing and nerve-racking," "absolute hell," and "an ice pick to the brain." "If you didn't know they were talking about noise, you might think they were describing some sort of assault," Erica Walker, an environmental-health researcher at Boston University, has said. This has spurred scientists, physicians, activists, public officials, and, albeit less in the United States, lawmakers to join in the quest for quiet, which is far more elusive than it may seem. "Quiet places," says the acoustic ecologist Gordon Hempton, "have been on the road to extinction at a rate that far exceeds the extinction of species."

THALLIKAR WENT HUNTING for the source of the sound. At first he canvassed the neighborhood by foot, setting out around 10 or 11 o'clock at night, once the thrum of traffic had quieted down. When these "noise patrols," as he called them, yielded no answers, he expanded his perimeter—by bike, then by car. He'd pull over every few blocks to listen for the whine. The hum was everywhere: outside Building E of the Tri-City Baptist Church and the apartments in San Palacio; near the Extra Space Storage and the NO PERFECT PEOPLE ALLOWED sign at Hope Covenant Church; ricocheting around the homes in Canopy Lane, Clemente Ranch, Stonefield, the Reserve at Stonefield. He'd go out multiple nights a week, for 10 minutes to an hour, taking notes on where the noise was loudest. The patrols dragged on—one week, two weeks, eight weeks—which led to spats with his wife, who wanted to know why he kept leaving the house so late at night.

Finally, as winter warmed into spring, Thallikar thought he'd identified the source of the whine: a gray, nearly windowless building about half a mile from his house. The two-story structure, which had the charm of a prison and the architectural panache of a shoebox, was clad in concrete and surrounded by chain-link and black-metal fences, plus a cinder-block wall. It belonged to a company called CyrusOne.

There was no thrill in this discovery, just simmering fear that the noise might get worse. Thallikar visited the city-planning clerk, multiple times. She said she couldn't help and referred him to CyrusOne's construction manager. Kept awake by the noise at 11 o'clock one Saturday night, Thallikar phoned the man, who protested that he was trying to sleep. "I'm trying to sleep too, dude!" Thallikar told him. When they spoke again the next day, the call ended abruptly, and without resolution.

According to CyrusOne's website, the company's Chandler campus offers *Fortune* 500 companies robust infrastructure for mission-critical applications. In other words, it's a data center—a columbarium for thousands of servers that store data for access and processing from virtually anywhere in the world. When you check your bank balance or research a used car or book a hotel room, chances are decent that the information comes to you via one of the more than 40 CyrusOne data centers spread around the globe. CyrusOne houses servers belonging to nearly 1,000 companies, including Microsoft, Country Financial, Brink's, Carfax, and nearly half of the *Fortune* 20.

Thallikar, wanting to confront the noise personally, made a surprise visit to CyrusOne. He found workers putting up a new

building, but learned that the whine was unrelated to construction. It came from the chillers, a bulky assemblage of steel boxes and tubes permanently affixed to the sides of the two existing buildings. Servers, like humans, are happiest at temperatures between 60 and 90 degrees Fahrenheit, and the chillers were crucial in keeping the heat-generating machines comfortably cool as they worked. In the fall of 2014, around the time Thallikar started noticing the whine, CyrusOne had had room for 16 chillers. Now it was getting ready to add eight more. During a follow-up visit, Thallikar, who grew up in Bangalore and moved to Arizona in 1990 to study industrial engineering at Arizona State University, said he was informed by a worker at the site that immigrants like him should feel lucky to live in the U.S., noise be damned.

CyrusOne arrived in Chandler shortly before Thallikar did and broke ground two months after he closed on his home. For CyrusOne, Chandler was a "dream come true," Kevin Timmons, the company's chief technology officer, told me. The city essentially offered CyrusOne carte blanche to develop an area three times the size of Ellis Island into one of the nation's largest data-storage complexes: 2 million square feet protected by biometric locks, steel-lined walls, bullet-resistant glass, and dual-action interlocking dry-pipe sprinkler systems. CyrusOne even has two of its own substations humming with enough energy (112 megawatts) to light up every home in Salt Lake City—or, more relevant to the matter at hand, to power several dozen 400- and 500-ton chillers. CyrusOne's Chandler facility was not only the company's most ambitious, but the biggest to realize its strategy of wooing clients through ultrafast, just-in-time construction. CyrusOne could now boast of being able to complete a building in 107 days—faster than customers could have their servers ready. "It literally put us on the map," Timmons said.

Arizona attracts data centers the way Florida attracts plastic surgeons. The state has low humidity; proximity to California—where many users and customers are based—but without its earthquakes or energy prices; and, thanks to lobbying efforts by CyrusOne, generous tax incentives for companies that drop their servers there. Walk 10 minutes due north from CyrusOne's Chandler complex, and you'll reach two other data centers, with a third just down the road. Drive 15 minutes from there, and you'll come across three more. Continue farther east past Wild West Paintball, and you'll hit an Apple data center, which will soon be joined by a Google facility, plus another data center from CyrusOne. Forty-five minutes west of Thallikar's home, Compass Datacenters is building on more than 225 acres of land, a plot three times the size of CyrusOne's in Chandler.

By the summer of 2015, Thallikar had thrown himself into an aggressive campaign to quiet the hum. He went up and down the city's chain of command, pleading for help. He emailed Chandler's economic-development innovation manager, its economic-development specialist, and its economic-development director, who replied that Thallikar was the only resident to complain, but dutifully went out, twice, to listen for the high-pitched whine. He didn't hear it. "I do not think I am imagining things here and wasting people's time," Thallikar wrote back, adding that he'd taken his family on his patrol, "and they too could hear the noise."

Thallikar emailed a news anchor, an executive producer, an editor, and several reporters at the local 12 News TV station, offering to help them "in experiencing the problem so they can relate to it." He emailed the mayor and all five members of the Chandler city council. Multiple times. Then daily. "The noise gets louder in the night and enters our homes. And the streets are filled with it," Thallikar wrote in one email. In another: "Just what will it take for one of you to respond to my emails." He presented his case at a city-council meeting, requesting that a task force be formed to research and stop the whine. He acknowledged that he'd been told the sound seemed suspiciously similar to the buzz of traffic on the 202 freeway nearby.

Thallikar took his campaign to his homeowners' association and to his neighbors. The response was tepid, though he did persuade one person to email the city. Thallikar reached out, again, to CyrusOne, and to the Chandler Police Department. Commander Gregg Jacquin promised to investigate, but suggested that Thallikar might have more success if he cooled it with all the emails to city officials, which were creeping into the high double digits. Thallikar started keeping a log of how the noise changed, hour to hour and day to day. It was getting louder, he was sure.

In the fall of 2015, Jacquin emailed Thallikar to say that he'd gone in search of the noise, but hadn't heard it. "I am not making this up—even though I do not have the measurement numbers," Thallikar wrote back. "The noise heard over the weekend starting on Saturday starting around 10 pm through Sunday was very very bad. I got a nervous headache, and had to take medications." He never heard back from Jacquin. Before long, Thallikar began to contemplate selling his home.

> "Quiet places have been on the road to extinction at a rate that far exceeds the extinction of species."

NOISE IS A CLEVER ENEMY. It leaves no trace and vanishes when chased. It's hard to measure or describe. It is also relative. "Sound is when you mow your lawn, noise is when your neighbor mows their lawn, and music is when your neighbor mows your lawn," says Arjun Shankar, an acoustic consultant. Noise is also fiendishly difficult to legislate, though for nearly as long as humans have lived together, we have seen fit to try. The ancient Greeks of Sybaris are credited with introducing the first noise ordinance, in the eighth century B.C., banishing roosters as well as blacksmiths, carpenters, and other "noisy arts" from the city limits. In the United States, the appetite for noise control reached its apex in 1972, when President Richard Nixon enacted the country's first federal statute specifically targeting noise pollution, which empowered the Environmental Protection Agency to quiet the country. Nine years later, the Reagan administration withdrew funding for the Environmental Protection Agency's Office of Noise Abatement and Control, foisting responsibility back onto state and local governments. Since then, little has changed. "Unfortunately," says New York City's longtime noise czar, Arline Bronzaft, "the federal government is essentially out of the noise business."

In the ensuing decades, the war on noise has shifted to the margins—a loose flock of mom-and-pop organizers whose agitations have all the glitz and edge of a church bake sale. The mood on pro-quiet listservs skews defeatist, the general tone more support group than picket line. (The landing page for the Right to Quiet

Society politely instructs newcomers, "If you did not like what you saw here, without telling us, you might consider leaving quietly.") Anti-noise crusaders band together in ragtag crews united by geography or irritant. Depending on whether your trigger point concerns planes, trains, blowers, Jet Skis, dirt bikes, concerts, boom cars, cars, motorcycles, or Muzak, you might join ROAR (Residents Opposed to Airport Racket), HORN (Halt Outrageous Railroad Noise), BLAST (Ban Leaf Blowers and Save Our Town), CALM (Clean Alternative Landscaping Methods), HEAVEN (Healthier Environment Through Abatement of Vehicle Emission and Noise), CRASH (County Residents Against Speedway Havoc), Pipedown ("the campaign for freedom from piped music"), or roughly 150 other organizations with varying levels of activity. In the United States, one of the few emitter-agnostic groups with a national scope is Noise Free America, which has 51 local chapters, noise counselors on call, and, for four out of the past six years, a tradition of going to Washington, D.C., to petition lawmakers—the pinnacle of which was once getting to meet then–Minority Leader Nancy Pelosi's deputy chief of staff.

On a recent Sunday morning, I joined Noise Free America's founder and director, Ted Rueter, for what he billed as a "noise tour" of Brooklyn—a pilgrimage to some of the borough's most sonorously grating street corners. Rueter, a 62-year-old political-science professor, met me at a Starbucks on Flatbush Avenue wearing khaki shorts, a pink polo shirt, and Bose noise-canceling headphones. He was joined by three New Yorkers concerned with the din of their neighborhoods: Manohar Kanuri, a former stock analyst who lives above the incessant beeping of construction and delivery trucks in Manhattan's Battery Park City; Ashley, a 40-something who's moved three times in an effort to escape thunderous parties; and Vivianne, a woman who lives with the constant staccato of honking livery cabs, dollar vans, and impatient drivers. (Ashley and Vivianne asked not to be identified by their real names.) For Rueter, who was in town from Durham, North Carolina, a tour of New York's cacophony seemed to have the exotic thrill of going on safari. Kanuri, Ashley, and Vivianne had corresponded extensively online, but this was their first time meeting in person, and they appeared delighted at getting to bond with sympathetic ears. "We build coalition this way," Kanuri said.

All three New Yorkers had tried tackling their noise issues through traditional avenues—the 311 nonemergency line (which receives more reports about noise than about any other issue), the local police, their city-council members, the public advocate, the mayor—but found the city unsympathetic, unresponsive, or ineffective. Before heading out on the noise tour, they sat in the Starbucks venting about the difficulties of catching emitters in the act and encouraging police to take action. Ashley had placed so many 311 calls that she worried about getting arrested, like a Bronx woman who was thrown in a holding cell on charges of entering false information in the public record after calling 44 times in 15 months—often to report her neighbors' racket. Vivianne warned Ashley that the police had probably pegged her as a "serial complainer"—among anti-noise crusaders, a dreaded fate.

Noise codes tend to be either qualitative (prohibiting subjectively defined "disturbing" or "unreasonably loud" noise) or quantitative (defining, in measurable terms, what constitutes disturbing or unreasonably loud noise). New York City's noise code, which is the latter, considers barking a nuisance only if a dog yaps for 10 minutes straight between the hours of 7 a.m. and 10 p.m., or for five minutes straight between the hours of 10 p.m. and 7 a.m. (Four and a half minutes of barking at 2 a.m. is, technically, permissible.)

For two years, Thallikar complained to anyone who would listen and even to those who would not. Meanwhile, CyrusOne kept building.

At night, restaurants can be fined if their music measures in excess of 42 decibels from inside a nearby apartment and seven decibels above the level of ambient street sounds.

Most ordinances correlate punishable noise with loudness, though if you've ever tried to sleep through a dripping faucet, you know that something can be quiet and still drive you up the wall. Research confirms that what makes a sound annoying is only partially whether it whispers or roars. The volume at which noise begins to irritate varies depending on the source—we tolerate trains at louder volumes than cars, and cars at louder volumes than planes—and its pitch, or frequency. (Humans can hear sounds between 20 and 20,000 hertz, which roughly ranges from the low-frequency thump of subwoofers to the high-frequency buzz of certain crickets.) We are more sensitive to mid-frequency sounds—voices, birdsong, squealing brakes, shrieking infants—and perceive these sounds as louder than they are. Contrary to the stereotype of the old man shaking his fist, age and gender are not necessarily strong predictors of annoyance.

Nor must noises be heard in order to harm. Earplugs may dull the whine of motorcycles chugging outside your bedroom, but they're useless against the engines' low-frequency rumble, which vibrates the windows, floors, and your chest, and is the type of sound that's largely ignored in most official noise calculations. (Harley-Davidson, which considers that thudding a point of pride, tried to trademark the sound of its V-twin motorcycle engine, which its lawyer translated as "potato potato potato" said very fast.) When regulatory officials evaluate environmental noise—to determine, say, whether to soundproof schools near airport runways—their calculations emphasize the mid-frequency sounds to which our ears are most sensitive and discount the low-frequency sounds (think wind turbines, washing machines, kids galloping upstairs) that have been shown to travel farther and trigger stronger stress responses. "If you actually measured sound using the right metric, you'll see that you're harming a lot more people than you think you are," says Walker, the environmental-health researcher, who is working with communities near flight paths and freeways to rethink how noise is quantified.

Years ago, the staff of a medical-equipment company became spooked by recurring sightings of a gray, spectral figure haunting their lab. One night, an engineer working late alone felt a chill pass through the room and, out of the corner of his eye, saw a soundless figure hovering beside him. When he wheeled around, no one was there. The next day, while adjusting one of the machines in the lab, he began to feel the same creeping unease. The poltergeist? A vibrating extractor fan, he realized. He published a paper on his ghost-busting, which concluded that the machine was emitting

Commander Edward Upshaw of the Chandler police doesn't foresee citing CyrusOne for the noise. "Not going to happen," he said.

low-frequency sound waves: pulses of energy too low in frequency to be heard by humans, yet powerful enough to affect our bodies—comparable, he found, to the inaudible vibrations in a supposedly haunted cellar and in the long, windy hallways that appear in scary stories. In addition to causing shivering, sweating, difficulty breathing, and blurry vision as a result of vibrating eyeballs, low-frequency sounds can also, apparently, produce ghosts.

For two years, Thallikar complained to anyone who would listen and even to those who would not. Meanwhile, CyrusOne kept building. The company finished three new buildings and bought 29 more acres of land in Chandler, growing the site to more than 85 acres. In a press release, it congratulated itself for "ensuring CyrusOne maintains the largest data center campus in the Southwest and one of the largest in the United States," and cheered plans to build a comparable facility in California.

Some nights, Thallikar couldn't sleep at all. He started wearing earplugs during the day, and stopped spending time outdoors. He looked for excuses to leave town and, in the evenings, returned to his old neighborhood in Tempe to take his constitutionals there. As he drove home, he'd have a pit in his stomach. He couldn't stop himself from making the noise a recurring conversation topic at dinner.

Not only was the whine itself agitating—*EHHNNNNNNNN*—but its constant drone was like a cruel mnemonic for everything that bothered him: his powerlessness, his sense of injustice that the city was ignoring its residents' welfare, his fear of selling his home for a major loss because no one would want to live with the noise, his regret that his family's haven (not to mention their biggest investment) had turned into a nightmare. *EHHNNN. EHHNNNNNNNNN. EHHNNNNNNNNNNNN*. He tried meditating. He considered installing new windows to dull the hum, or planting trees to block the noise. He researched lawyers. And he made one final appeal to the newly elected members of the Chandler city council.

Lo and behold, one wrote back, promising to look into the issue.

The council member followed up a few weeks later. "According to the chief, police had visited 16 times on the site and conducted investigations on your claim," he wrote. "They found the noise level was not significant enough to cause an issue." Thallikar contacted a real-estate agent. He would lose money, and he'd have to move to a smaller house, but by the end of 2017, he'd decided to sell his home.

To spend time with noise warriors is to become frustratingly attuned to every gurgle, squeal, clank, and creak. As I set out with Rueter and the three New Yorkers on the noise tour, the anonymous din of Flatbush Avenue splintered into a riotous skronk of bleating cars, rattling generators, and snarling planes. Sirens yowled and vents whistled; a motorcycle *potato-potato-potato*ed and a can skittered on the concrete.

R. Murray Schafer, a Canadian composer who, in the 1960s, pioneered the field of acoustic ecology, has advocated "soundwalks" as an activity that, even more effectively than ordinances, could curb noise pollution by making people more aware of their habitat's acoustics. A soundwalk—during which you actively listen to the sonic demeanor of your surroundings—might involve tallying the number of car horns you hear in the course of an hour or scavenger-hunting for sounds with specific characteristics, like a buzz followed by a squeak. Schafer saw soundwalks as a way to address our sonological incompetence. Teach people to tune in to their soundscapes, and they will understand which sounds to preserve and which to eliminate, then act accordingly.

The first stop on our noise tour was, mercifully, a place of quiet. We gathered in silence around a small koi pond on the Brooklyn College campus. I forced myself to listen carefully. An air conditioner purred. Water burbled. A child hollered. "See, once a kid comes, that's when the screaming starts," Ashley said.

She and Kanuri discussed the inefficacy of earplugs and the pros and cons of analog versus digital white-noise machines. Ashley said she slept with three white-noise machines (which hardly makes her an exception among the sound-sufferers I met) and, because of a whistler in her office, had started wearing earplugs at work.

"Are you familiar with something called slow TV?" Kanuri asked Ashley. "It's a sailboat that runs 10 hours, and all you hear is the ship breaking water. That's it. Every now and then you'll hear *bruhhhhh*—another ship that passes by. That's it. It's beautiful. It's *beautiful*."

Stéphane Pigeon, an audio-processing engineer based in Brussels, has become the Taylor Swift of white noise, traveling the world recording relaxing soundscapes for his website, myNoise.net, which offers its more than 15,000 daily listeners an encyclopedic compendium of noise-masking tracks that range from "Distant Thunder" to "Laundromat," a listener request. (White noise, technically speaking, contains all audible frequencies in equal proportion. In the natural world, falling rain comes close to approximating this pan-frequency *shhhhhh*.) Impulse noises, such as honking, barking, hammering, and snoring, are the hardest to mask, but Pigeon has tried: While traveling in the Sahara, he recorded "Berber Tent," a myNoise hit designed to help snorees by harmonizing the gentle whoosh of wind, the burble of boiling water, and the low rattle of snoring. Because covering up a

snorer's brief, punchy *HRROHN!* is exceedingly difficult, "the goal is to try to persuade you that snoring could be a beautiful sound," Pigeon told me.

After a few minutes at the pond, we reluctantly tore ourselves from the quiet to prowl Brooklyn's streets for sounds. Farther north on Flatbush Avenue, encircled by lowing horns and a wheezing Mister Softee truck, Kanuri used his sound-meter app to measure the ambient noise—a disappointing 75.9 decibels, lower than everyone had thought but still more than 20 decibels above the threshold at which, per a 1974 EPA report, we get distracted or annoyed by sound. (Decibels, which measure volume, are logarithmic: Turn up a sound by 10 decibels, and most people will perceive its loudness as having doubled.) The soundscape shushed as we approached the stately brownstones near Prospect Park, then thumped to life again when we stopped for lunch at, of all places, Screamer's Pizzeria. "Would it be possible during our short stay here to turn down the music?" Rueter asked a server.

Desperate ears call for desperate measures, and the noise-afflicted go to elaborate lengths to lower the volume. Kanuri taught himself to code so he could analyze New York City's 311 data and correlate noise complaints with elective districts; he hoped he could hold politicians accountable. Having tried moving bedrooms and also apartments, Ashley is now moving across the country, to a suburb in the Southwest. I spoke with a New Yorker who, unable to afford a move, has been sleeping in her closet—armed with earplugs, headphones, an AC unit, a fan, and two white-noise machines. A Wisconsin man who'd re-insulated, re-drywalled, and re-windowed his home was ultimately offered sleeping medication and antidepressants. An apartment dweller in Beijing, fed up with the calisthenics of the kids upstairs, got revenge by attaching a vibrating motor to his ceiling that rattled the family's floor. The gadget is available for purchase online, where you can also find Coat of Silence paint, AlphaSorb Bass Traps, the Noise Eater Isolation Foot, the Sound Soother Headband, and the Sonic Nausea Electronic Disruption Device, which promises, irresistibly, "inventive payback."

> **Not only was the whine agitating—*EHHNNNNNNNN*—but its constant drone was like a cruel mnemonic for everything that bothered him.**

One might also run for president. Arline Bronzaft, the New York City noise czar, speculates that Donald Trump's presidential campaign was motivated by his quest to quiet the aircraft that disrupted Mar-a-Lago's "once serene and tranquil ambience"—so described in one of the lawsuits Trump filed in his 20-year legal battle against Palm Beach County. Six days after he was elected—and the Federal Aviation Administration shared plans to limit flights over his resort—a Trump spokesperson announced that he would abandon the lawsuit.

Scientists have yet to agree on a definition for noise sensitivity, much less determine why some individuals seem more prone to it, though there have been cases linking sensitivity to hearing loss. What *is* clear, however, is that sound, once noticed, becomes impossible to ignore. "Once you are bothered by a sound, you unconsciously train your brain to hear that sound," Pigeon said. "That phenomenon just feeds itself into a diabolic loop." Research suggests habituation, the idea that we'll just "get used to it," is a myth. And there is no known cure. Even for sufferers of tinnitus—an auditory affliction researchers understand far better than noise sensitivity—the most effective treatment that specialists can offer is a regimen of "standard audiological niceness": listening to them complain and reassuring them the noise won't kill them. Or, as one expert put it, "lending a nice ear."

DURING THE SUMMER of 2017, Cheryl Jannuzzi, who lived a short drive from Thallikar, in Clemente Ranch, began to hear humming coming from somewhere behind her house. For a while, she'd had to endure the clang and beep of construction, but this was different—like an endlessly revving engine, or a jet warming up for takeoff.

Jannuzzi contacted the city, and was told that the complex directly across Dobson Road from her backyard was a data center. This was news to her, and she wasn't sure what to make of it. "They're just housing data," she thought. "That shouldn't be making so much noise."

Around Halloween, Jennifer Goehring started to notice a buzzing sound. It gave her headaches and kept her up at night, but her husband couldn't hear it, and neither could her kids. She worried that she might be losing her mind. She began sleeping with sound machines and pillows over her head, and went to the doctor to be sure she didn't have an ear infection. She didn't.

Amy Weber was with her Bible-study group in her backyard when she became aware of a consistent tone that hummed above everyone's voices. She and her husband, Steve, had heard the construction on Dobson Road for ages, but this whirring sound didn't seem to stop, or change. They tried to identify it by process of elimination, even climbing out of bed one night to clear crud from their pool pump, which, they discovered, wasn't turned on.

Eventually, through their own patrols, they identified the source. The week after Christmas, the Webers papered Clemente Ranch with flyers and created a website asking people if they'd been bothered by a "constant humming/whirring sound" coming from CyrusOne. Complaints from more than 120 people flowed in.

Thallikar heard about the Webers' efforts from one of his neighbors, and on January 23, 2018, he went to their home for the standing-room-only inaugural meeting of the Dobson Noise Coalition. People complained about headaches, irritability, difficulty sleeping. Jannuzzi had tried to muffle the sound by installing thick wooden barn doors over her sliding glass doors, and another neighbor had mounted sound-absorbing acoustic board in her bedroom windows. For five years, you couldn't have bought a house on Jannuzzi's block, but now several of her neighbors were planning to move.

When it was Thallikar's turn, the story of his three-year odyssey poured out: the sleepless nights, the feelings of being under attack, the unresponsive officials and unanswered emails. Jaws dropped. He wanted to know why no one else had spoken up earlier. "I think we all went through a period of 'Maybe it'll go away,'"

said one neighbor. Others had assumed something was wrong with them, or else had struggled to trace the sound to its source.

The Dobson Noise Coalition jumped into action. Its members circulated a petition asking CyrusOne to stop its racket, which 317 people signed. They wrote to CyrusOne, twice, but heard nothing. They contacted Chandler officials—who were considerably more receptive to the group than they had been to Thallikar alone—and got the city manager to send CyrusOne's CEO a certified letter requesting a "plan of action." For weeks, CyrusOne responded with silence.

THE NATURE OF noise is shifting. Sonic gripes from the 18th and 19th centuries—church bells, carriage wheels, the hollering of street criers—sound downright charming to today's ears. Since then, our soundscape has been overpowered by the steady roar of machines: a chorus of cars, planes, trains, pumps, drills, stereos, and turbines; of jackhammers, power saws, chain saws, cellphones, and car alarms, plus generators, ventilators, compressors, street sweepers, helicopters, mowers, and data centers, which are spreading in lockstep with our online obsession and racking up noise complaints along the way. Communities in France, Ireland, Norway, Canada, North Carolina, Montana, Virginia, Colorado, Delaware, and Illinois have all protested the whine of data centers. That's to say nothing of what drones may bring. "The next century will do to the air what the 20th century did to the land, which is to put roads and noise everywhere," Les Blomberg, the executive director of the nonprofit Noise Pollution Clearinghouse, told me. Noise, having emancipated itself from the human hand, is becoming autonomous and inexhaustible. Human noisemakers have to sleep, but our mechanical counterparts, which do not tire, die, or strain their vocal cords, can keep up a constant, inescapable clamor.

Study after study has reached the hardly earth-shattering conclusion that we largely prefer the sounds of nature to those of machines. A 2008 research project that played subjects 75 recordings, ranging from a cat's meow to skidding tires, found the five most agreeable sounds to be running water, bubbling water, flowing water, a small waterfall, and a baby laughing. Other studies—echoing spa brochures—tell us that natural sounds promote relaxation.

And yet we're muffling them with our racket, to the detriment of other species. The concentration of stress hormones in elk and wolf feces spikes when snowmobiles arrive, then returns to normal when the machines disappear; a similar pattern was observed for North Atlantic right whales subjected to the whine of ship traffic. (One bioacoustics researcher told *The New York Times* that the acoustic emissions of air guns, used to map the ocean floor, are creating a "living hell" for undersea creatures.) Birds in noisy habitats become screechier to make themselves heard above our din—sparrows that "used to sound like, say, George Clooney would now sound like Bart Simpson," one ornithologist told a reporter—and this phenomenon has been linked to decreases in species diversity, bird populations, and tree growth.

Though data are scarce, the world appears to be growing louder. The National Park Service's Natural Sounds and Night Skies Division, which sends researchers to measure the acoustics of the American outdoors, estimates that noise pollution doubles or triples every 30 years. The EPA last measured our nation's volume in 1981; assuming (generously) that our collective cacophony has remained constant, calculations from 2013 estimate that more than 145 million Americans are exposed to noise exceeding the recommended limits. In the absence of more recent surveys, the volume at which emergency vehicles shriek is telling, given that sirens must be loud enough to pierce the ambient noise level. According to measurements by R. Murray Schafer, a fire-engine siren from 1912 reached 88 to 96 decibels measured from 11 feet away, whereas by 1974, sirens' screeches hit 114 decibels at the same distance—an increase in volume, he noted, of about half a decibel a year. The latest fire-engine sirens howl louder still: 123 decibels at 10 feet.

Not everyone bears the brunt of the din equally. Belying its dismissal as a country-club complaint, noise pollution in the U.S. tends to be most severe in poor communities, as well as in neighborhoods with more people of color. A 2017 paper found that urban noise levels were higher in areas with greater proportions of black, Asian, and Hispanic residents than in predominantly white neighborhoods. Urban areas where a majority of residents live below the poverty line were also subjected to significantly higher levels of nighttime noise, and the study's authors warned that their findings likely underestimated the differences, given that many wealthy homeowners invest in soundproofing.

"If you want to access quietness, more and more you have to pay," says Antonella Radicchi, an architect who helps map quiet spaces in cities. Radicchi believes access to quiet havens should be a right for every city dweller, not only the rich, who can afford to escape noise—via spas, silent yoga retreats, lush corporate campuses. For $6,450, not including airfare, you too can take a plane to a car to a motorboat to a canoe to a hiking trail to spend three days with a tour group along Ecuador's Zabalo River, which was recently named the world's first Wilderness Quiet Park. The designation was developed by the acoustic ecologist Gordon Hempton, who has crisscrossed the globe recording natural soundscapes and, through his nonprofit, Quiet Parks International, is

Amy Weber, who co-founded the Dobson Noise Coalition, in front of her home

on a mission to "save quiet." The organization is developing standards to measure the quietness of parks, trails, hotels, and residential communities, and will offer accreditation to areas that are suitably silent. (The Zabalo River qualified for Wilderness Quiet Park status by having a noise-free interval of at least 15 minutes, during which no man-made sounds were audible.)

I spoke with Hempton via Skype several days after he'd returned from the Zabalo River. He was tan, with close-cropped gray hair and a tattoo on each forearm—one, of a leaf, inspired by his most recent visit to the Zabalo and another, he said, by an epiphany during his first solo campout in the Amazon jungle. Like other quiet advocates, Hempton speaks with the calm confidence, parallel sentence structure, and hypnotic cadence of a guru. I asked him what he sees as the value of quiet. "The further we get into quiet, the further we discover who we are," Hempton said. "When you speak from a quiet place, when you are quiet, you think differently. You are more uniquely yourself. You are not echoing advertisements. You are not echoing billboards. You are not echoing modern songs. You're echoing where you were." When I asked Hempton's co-founder the same thing, he chided me: "That question itself comes from a noisy situation."

Before starting Quiet Parks International, Hempton launched an effort to preserve the sonic pristineness of the Hoh Rain Forest in Washington's Olympic National Park. In 2005, Hempton could sit in the park for an hour without hearing man-made sounds—there was only the low, breathy whistle of the wind, the tap of rain on Sitka spruce, black-tailed deer crunching over felled hemlock, and marbled murrelets trilling. Today, thanks to an increase in flights from a naval air base, Hempton says the noise-free interval has dropped to 10 minutes.

THIS SUMMER, I traveled to Chandler to hear the whine for myself. A few months after the creation of the Dobson Noise Coalition, CyrusOne emailed the group promising to be a "good neighbor" and said it would install "sound attenuation packages" on its chillers by October 2018. But that October came and went, and, the neighbors agreed, the noise was worse than ever.

So they kicked their efforts into high gear. In the 17 months since the Dobson Noise Coalition was founded, its members have consulted lawyers, filed police reports, gotten coverage in the local news, and met with Chandler's chief of police. Armed with videos, written testimony, and detailed timelines, more than two dozen unsmiling neighbors dressed in red presented their grievances to the Chandler city council. That finally got them a meeting with CyrusOne.

Noise is becoming autonomous and inexhaustible. Human noisemakers have to sleep, but our mechanical counterparts do not tire, die, or strain their vocal cords.

In May, delegates from the Dobson Noise Coalition parleyed with delegates from CyrusOne, including an acoustic consultant the company had hired. According to his measurements, the whine of the chillers falls between 630 and 1,000 hertz—directly in the mid-frequency spectrum, the range our ears are most sensitive to—and is a pure-tone sound, widely considered exceptionally irritating. CyrusOne reiterated that it would spend $2 million wrapping each and every chiller in custom-made, mass-loaded vinyl blankets designed to lower the whine by 10 decibels. Any future chillers would also be swaddled.

Kevin Timmons, CyrusOne's chief technology officer, took me on a golf-cart tour of the exterior of the mission-critical facility, of which no inside tours are permitted without a signed nondisclosure agreement. Even Timmons kept getting locked out of different quadrants and having to summon security guards for help. He first heard about the noise complaints in early 2018, and said the neighbors' annoyance came as a surprise. "We were a little bit stunned for a number of months while we tried to figure out if this was real," he told me. "And it was made clear to us that, whether real or imagined, it is something that we have to do something about." He regretted not acting faster and worried that even after the seven-figure soundproofing, some people could never unhear the whine: "Once you hear an annoying sound, humans could actually start listening for that sound." Recently, he told me, residents living near a CyrusOne data center in Dallas have started complaining about a hum.

The week I visited, CyrusOne had finished wrapping 24 of the now 56 chillers at the Chandler complex. The neighbors were split on whether the blankets helped, but they were unanimously livid that the city had allowed a data center in their backyard in the first place. They had a lot of questions about due diligence: What studies had been done? What measurements taken? None, I learned: Chandler's city planners are not required to consider noise when issuing permits, nor did they. Plus, most of CyrusOne's land was zoned for industrial use in 1983, 13 years before the closest homes, in Clemente Ranch, were built. The neighbors all knew the local noise code, chapter and verse—"No person shall disturb the peace, quiet and comfort of any neighborhood by creating therein any disturbing or unreasonably loud noise"—and demanded to know why CyrusOne hadn't at the very least been cited, given that it was unquestionably disturbing their peace, quiet, and comfort.

I posed that question to Commander Edward Upshaw, a 33-year veteran of the Chandler Police Department, as we cruised the outskirts of the CyrusOne campus, a steady hum faintly audible over the rumble of late-afternoon traffic. "Issuing a citation and charging somebody with a crime for this level of noise? Not going to happen," Upshaw said. We pulled over in Chuparosa Park and stood a few yards from the cinder-block wall that marked the outer edge of CyrusOne. "People sell radios that make white noise or waves that's louder than this," he said. "There's people that pay for this! I don't know what the issue is." We drove inside Clemente Ranch. "If you called a New York police officer for this noise, tell me what would happen. Tell me! Tell me what would happen."

The following evening, I drove to Thallikar's home, one in a row of tidy stucco houses bordered by saguaros and Jeep Wranglers. We sat in his living room next to a glass coffee table covered with folders and papers documenting his noise fight.

After teaming up with the Dobson Noise Coalition, Thallikar decided to hold off on selling his home. He was "cautiously optimistic," but still wanted to know why the city

allowed the "monstrosity," with its "goddamned machines," to escape punishment for disturbing the peace. He rejected the idea that anyone could judge the hum based on a short visit. "They are going there and sampling the problem," Thallikar said. "I'm experiencing it day and night." But he conceded that CyrusOne's noise level was about 20 percent better than it had been, and he'd recently moved back into his master bedroom.

As CyrusOne had gotten quieter, though, Thallikar had noticed another, different whine. Through a new round of patrols, he'd traced it to GM Financial, which was equipped with its own platoon of chillers. He presented his findings to the city manager in a PowerPoint presentation, which identified as sources of "injurious noise pollution" chillers and generators at GM Financial; the Digital Realty data center around the corner from his home; and, potentially, the forthcoming Northrop Grumman complex. (Digital Realty and GM Financial said they were aware of the complaints but, after investigating, deemed no action necessary; the owner of Northrop Grumman's building told me any noise concerns were "unfounded.")

Thallikar offered to take me on a listening tour of the injurious noise pollution, and we hopped into a road-worn Toyota Camry, which Thallikar steered to the GM Financial parking lot. We sidled up to a locked metal gate. "You hear this?" Thallikar said. *EHHNNNNNNNN*, said something from within the enclosure. "I don't know how many units they have inside. You hear this, right? In the evenings it becomes louder and louder."

After a few other stops, we doubled back to concentrate on the area around CyrusOne. For more than an hour, we circled its campus, pulling over every so often. As the sun and traffic dropped, the intensity of the hum rose. The droning wasn't loud, but it was noticeable. It became irritatingly noticeable as the sky dimmed to black, escalating from a wheezy buzz to a clear, crisp, unending whine.

"This is depressing," Thallikar said as we stood on a sidewalk in Clemente Ranch. "Like somebody in pain, crying. Crying constantly and moaning in pain."

We were silent again and listened to the data center moaning. Which was also, in a sense, the sound of us living: the sound of furniture being purchased, of insurance policies compared, of shipments dispatched and deliveries confirmed, of security systems activated, of cable bills paid. In Forest City, North Carolina, where some Facebook servers have moved in, the whine is the sound of people liking, commenting, streaming a video of five creative ways to make eggs, uploading bachelorette-party photos. It's perhaps the sound of Thallikar's neighbor posting "Has anyone else noticed how loud it's been this week?" to the Dobson Noise Coalition's Facebook group. It's the sound of us searching for pink-eye cures, or streaming porn, or checking the lyrics to "Old Town Road." The sound is the exhaust of our activity. Modern life—*EHHNNNNNNNN*—humming along.

The hum had settled into a strong, unwavering refrain by the time Thallikar dropped me off at my hotel, which looked out over the CyrusOne campus. I could see a new building under construction, plus a lot for another building of equal size. Beyond that, just down the street from where Thallikar lived, was a bald patch of land with space for two more buildings. CyrusOne had room to add 96 more chillers, almost double the number whining now. A

Bianca Bosker is a contributing writer at The Atlantic *and the author of* Cork Dork.

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Pictured: American Airlines team members surviving and co-surviving cancer with SU2C ambassador, Tim McGraw

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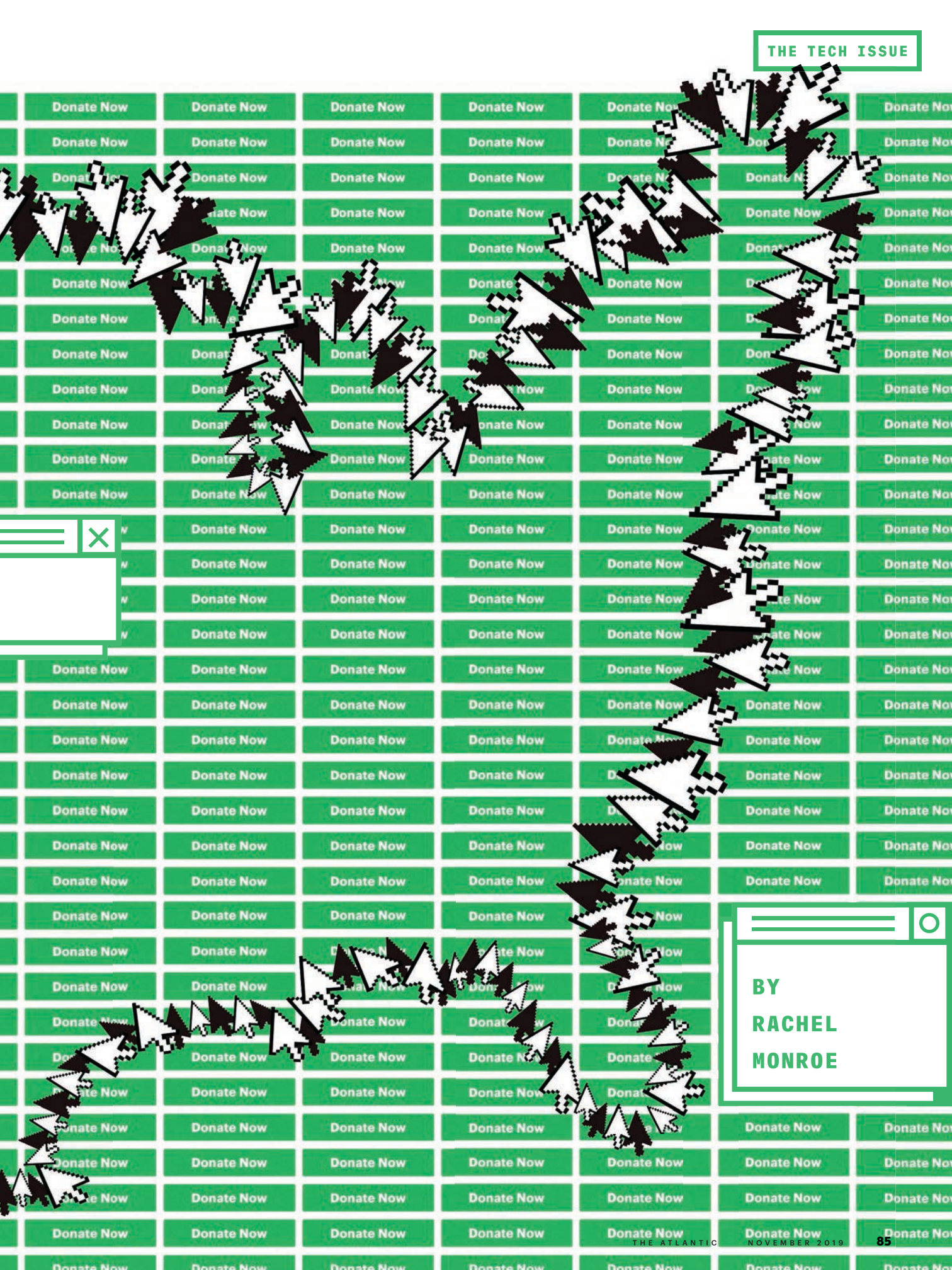
ILLUSTRATION
BY PAUL SPELLA

GoFundMe Nation

The largest crowdfunding site in the world puts up a mirror to who we are and what matters most to us. The reflection isn't always pretty.



BY
RACHEL
MONROE

In June 2016, Chauncy Black rode the bus from his home in South Memphis to one of the city's whiter, wealthier neighborhoods. The 16-year-old helped his grandmother pay the bills by doing odd jobs for neighbors, and on this afternoon he was headed for the rich-person Kroger supermarket to try something new: approaching shoppers who'd just bought hundreds of dollars' worth of groceries and offering to take their bags to the car for a few bucks. It had seemed like a good idea, but in practice it was dispiriting. People ignored him; they wouldn't even look him in the eye.

Sometime after 9 p.m., Chauncy filled a box with a dozen donuts and approached a tall white man in his 30s. In exchange for buying him this "dinner," Chauncy told the guy, he'd carry his groceries. Matt White bought Chauncy the donuts—and cereal and peanut butter and toothbrushes and frozen vegetables, too. "All the while we talked and he told me how he makes straight A's in school and is trying to get a job to help his mom pay rent," Matt posted on Facebook the next day. Matt drove Chauncy (and the sacks of groceries) home. "When we got to his house I was truly humbled. He wasn't kidding. He and his mom had nothing," Matt wrote. "I thought I was going to cry. As we unpacked the food into their kitchen, you could see the hope coming back into Chauncy's eyes. He knew he wasn't going to be hungry. He looked like a kid again."

Like Chauncy, Matt was born and raised in Memphis, albeit in a different milieu. He was the son of a successful medical-malpractice attorney and a homemaker. In 2008, when Matt was in his early 20s, his father was diagnosed with cancer; three months later, he died. Matt says he spiraled out of control. "I had no Lord anymore," he told me. He had a day job in the music industry and dealt party drugs at night. One morning after a bender, Matt said, he nearly ran his car off the road and, believing he'd been saved by divine intervention, decided to offer his life up to God.

In this chance encounter with a teenager, Matt again felt the stirrings of the Holy Spirit. He was certain he was doing God's will when his Facebook post began racking up shares and likes. Strangers offered Chauncy's family furniture, food, and an air conditioner. And then someone suggested that Matt start a GoFundMe page for Chauncy. Matt called the campaign "Chauncy's Chance" and set its goal at $250—enough to buy a lawn mower so Chauncy could start a landscaping business. Within a few hours he'd hit the target. By the end of the night, the fund had doubled, and then it quickly doubled again. Watching the money grow was intoxicating; Matt wondered how long the explosion of charity would last.

Over the course of three roller-coaster months, 14,076 people contributed $342,106 to Chauncy Black—enough to buy his family a new house.

SIX YEARS BEFORE Matt's fateful shopping trip, GoFundMe was founded by two young viral-marketing specialists named Brad Damphousse and Andy Ballester. At the time, Indiegogo and Kickstarter were already crowdfunding projects for artists and entrepreneurs, but Ballester and Damphousse thought they could push the concept much further. They'd help individuals and small groups raise money for personal passions and needs, such as honeymoon trips and graduation gifts—crowdfunding "for life's important moments," as the two called it.

Almost immediately, however, it became apparent that "for life's desperate moments" would have been an equally appropriate slogan. Although GoFundMe's 18 preset donation categories today include education, animals, travel, and community, the most popular has always been medical. It currently accounts for one in three campaigns, according to company estimates.

Still, the variety on display in this marketplace of need is vast. People have used GoFundMe to eliminate elementary-school students' lunch debt, to send the local soccer team to nationals, to replace stolen chickens, to help a stranger attend a bachelor party—and, more and more these days, to get involved with divisive political causes. "When Christine Blasey Ford was accusing Judge [Brett] Kavanaugh of sexual assault, a campaign was raised because she needed security—it raised half a million dollars," says Robert Solomon, the CEO, who came to GoFundMe from Groupon after Ballester and Damphousse sold their business to an investment team in 2015. "At the same time, somebody on the other side started a fundraiser for Judge Kavanaugh."

GoFundMe has become the largest crowdfunding platform in the world—50 million people gave more than $5 billion on the site through 2017, the last year fundraising totals were released. The company used to take 5 percent of each donation, but two years ago, when Facebook eliminated some charges for fundraisers, GoFundMe announced that it would do the same and just ask donors for tips. (Company officials wouldn't say whether this model is profitable, though the site does have other sources of revenue, such as selling its online tools to nonprofits; the "grand ambition," Solomon told me, is to have all internet charity, whether initiated by individuals or large organizations, flow through GoFundMe.)

The spectacularly fruitful GoFundMes are the ones that make the news—$24 million for Time's Up, Hollywood's legal-defense fund to fight sexual harassment; $7.8 million for the victims of the Pulse nightclub shooting in Orlando—but most efforts fizzle without coming close to their financial goals. Comparing the hits and misses reveals a lot about what matters most to us, our divisions and our connections, our generosity and our pettiness. And even the blockbuster successes, the stories that make the valedictory lap that is GoFundMe's homepage, are much more complicated than any viral marketer would care to admit.

> **GoFundMe campaigns that go viral tend to follow a similar template: A relatively well-off person stumbles upon a downtrodden but deserving "other" and shares his or her story.**

MATT WHITE HAD an intuitive grasp of how to attract donors to Chauncy's Chance. In a world inundated with bad news, people want something that makes them feel hopeful. They also like to become part of an unfolding story that seems to promise a happy ending in the not so distant future. Matt's depiction of Chauncy—the poor, hardworking teen with a thousand-watt smile—neatly fit these requirements.

Matt, a classically handsome singer-songwriter who usually wears his long brown hair in a bun, offered emotional progress reports about the status of Chauncy's fund, sometimes more than once a day: "My heart is going to explode. People just keep giving and giving to this family and it is almost too much for me to take in." He wrote at length about Chauncy and his family's poverty and work ethic, and the young man's desire to better himself. When a local dentist donated a set of dentures for his grandmother Barbara Martin, who'd raised him since he was a baby and whom he calls his mother, Matt filmed her getting them fitted. He posted photographs of the spot where Chauncy and Barbara had fashioned beds out of blankets because they couldn't afford furniture. He uploaded recordings of his phone calls with Chauncy to SoundCloud. ("I'm sorry you have to sleep on the floor again tonight, man. We're going to take care of that as soon as possible. Mind your manners, be polite, work hard—it'll pay off.") Within a week, the campaign collected more than $10,000; after a local reporter covered the story and it got picked up nationally, the take topped $100,000.

In the heady first weeks, when the money was pouring in, Matt learned more about Chauncy's situation from Barbara—namely, how his birth mother had struggled with addiction, leading Barbara to take custody of Chauncy and six of his siblings. Matt glided quickly over that information on GoFundMe, however. He wanted to keep things upbeat.

Chauncy's family initially was shocked that they'd become a media sensation. "We went to the store and everyone was like, 'What's [Chauncy] done?' We didn't have a TV—we didn't know what was going on," Richard, a close friend who lives with the family, told me. "Then one day it was like, 'Pack up. Let's go.'" The story had gotten big enough that Matt worried about Chauncy and Barbara's safety—someone threatened to kidnap Chauncy, he told me—so the family relocated to a hotel, where they camped out for weeks while a real-estate agent helped them find a new home.

PHOTOGRAPHS BY AKASHA RABUT

Left: Chauncy has started a landscaping business, but he feels stuck in Memphis, unsure how to reach for something more. *Right:* Matt White posted emotional updates about Chauncy and his grandmother Barbara Martin. "My heart is going to explode," he wrote in one. "People just keep giving and giving to this family and it is almost too much for me to take in."

Matt and Chauncy were featured in *People* magazine; a German journalist flew to Memphis to interview them. "We were the No. 1 trending story on Facebook," Matt said. "The GoFundMe was making $1,000 a minute." Part of it was an accident of timing, he believed. "Right when the story was peaking was the worst moment of the Black Lives Matter movement. The tension was hot. Here in Memphis, we were having protests on the bridge. It was really bad. And the story was 'White Helps Black.'" Literally. The main characters' names—Chauncy Black and Matt White—is one of the uncanny aspects of this tale. "It was like God took a sword of hope and stuck it into all that hate," Matt said.

Over the course of three roller-coaster months, 14,076 people contributed $342,106 to Chauncy's Chance. With about $104,000 of the proceeds, the family was able to buy a three-bedroom house in a safer neighborhood, where nobody would have to "hit the floor," as Barbara put it, to avoid stray gunfire. "I had really given up on people," she told me. "You know when you get a door slammed in your face? But people really do care." Chauncy's Chance became a frequent talking point for Robert Solomon, an example of "how ordinary people who start GoFundMe campaigns can change someone's world."

That December, Matt was invited to a celebration for campaign organizers hosted by GoFundMe. He mingled with a man who'd raised $384,285 for an elderly *paleta* seller in Chicago, as well as a survivor of the Pulse nightclub shooting. Matt was inspired by the roomful of people extolling empathy and connection and the power of a single good deed. He'd always wanted to be of service to his community but had never quite known how. With GoFundMe, he thought he might have found his calling.

GoFundMe campaigns that go viral tend to follow a template similar to Chauncy's Chance: A relatively well-off person stumbles upon a downtrodden but deserving "other" and shares his or her story; good-hearted strangers are moved to donate a few dollars, and thus, in the relentlessly optimistic language of GoFundMe, "transform a life." The call-and-response between the have-nots and the haves poignantly testifies to the holes in our safety net—and to the ways people have jerry-rigged community to fill them. In an era when membership in churches, labor unions, and other civic organizations has flatlined, GoFundMe offers a way to help and be helped by your figurative neighbor.

What doesn't fit neatly into GoFundMe's salvation narratives are the limits of private efforts like Matt White's. GoFundMe campaigns blend the well-intentioned with the cringeworthy, and not infrequently bring to mind the "White Savior Industrial Complex"—the writer Teju Cole's phrase for the way sentimental stories of uplift can hide underlying

structural problems. "The White Savior Industrial Complex is not about justice," Cole wrote in 2012. "It is about having a big emotional experience that validates privilege."

After Chauncy, Matt kept creating GoFundMes. He likened his work to a ministry: "God has given me so much revelation—I can look at a GoFundMe campaign and tell whether it's going to activate within someone the key to unlock the gift of giving. I have a sixth sense for it." He collected more than $36,000 for a blind Vietnam War veteran, "The Can Man," who turned out to not be a veteran after all. (Matt blamed the falsehood on a genetic disorder that left the Can Man with "traumatic hallucinations ... so severe that they would appear no different from reality"; he told me that he offered to return donations, but no one asked for a refund.) Next, he took on a single mom and her two kids who were living out of their car in Arizona; that campaign raised $6,335, a sixth as much as the Can Man fundraiser had. When the money wasn't enough to get the family back on their feet, Matt launched a second campaign for them; that one raised half as much as the first. He said he's fallen out of touch with the family but hopes they're doing well.

Matt's relationship with the Blacks grew strained over time. He worried that Chauncy was getting too puffed up from all the attention, and he was disappointed that he hadn't transformed the teenager's life as much as he'd hoped to. Chauncy dropped out of high school midway through his junior year, blaming an injury that damaged his eyesight. By then, Matt knew that the straight A's he had touted in his first Facebook post were something of a mirage. The school principal pressed teachers to inflate grades, Chauncy told me, and Barbara said her grandson was too busy hustling to put food on the table to be more than a middling student. Not long after his 18th birthday, Chauncy had news for Matt: His girlfriend was pregnant. He was thrilled, but Matt didn't share his excitement. "I tried to influence their lives, but that culture, it's just something else," he told me. "It's hard to come up against that influence—not finishing school, having children out of wedlock."

Meanwhile, Matt said, it seemed as though the Blacks called him every time they needed help with any little thing—when the toilet broke, when someone needed a ride to work. "It was fun, but it got to be too much," Matt said. So last December, he decided he had to establish better boundaries. He deactivated the Chauncy's Chance Facebook page and threw himself into a new career as a cancer coach. (Matt has developed methods involving "diet, holistic healing ... lifestyle support, stress and inner healing coaching," he said, to "support the body's natural ability to heal itself of cancer.")

Barbara was confused and hurt when Matt suddenly vanished, she told me. After doctors found blood clots in her legs, she says, she texted Matt to tell him she was in the hospital awaiting surgery. "He just didn't reply," she said. Matt told me he never received the texts, and that he'd taken Barbara to the hospital for this condition at least three times before the surgery.

Laila and Richard Roy married in 2016, drawn together in part by their shared experiences of ill health. Richard had had a heart attack in 2015 and, after three weeks in a coma, struggled to get back to normal. As a child, Laila had been diagnosed with hereditary pancreatitis, and in 2003, when she was 23, she'd had to have her pancreas, spleen, and parts of her stomach and small intestine removed.

Last year, Laila finally got on the list for a pancreas transplant. It should have been good news, but the couple, who had primary custody of three 9-year-olds from previous marriages—her twins and his son—worried that the much-needed surgery would disrupt their already precarious financial situation. Laila received only a small monthly disability check, and Richard's digital-marketing business was unpredictable. They had health insurance, like most people who file for bankruptcy because of medical expenses in the U.S. The problem was the high out-of-pocket costs of Laila's recovery, especially because Richard would have to take some time off to care for her.

On the GoFundMe page Richard created, he described his wife's situation as urgently and succinctly as he could: "Memphis Dying Mother's Life Saving Transplant." Richard knew he had to make his family seem wholesome and relatable, so he included photos of the kids grinning on their first day of school and of him and Laila embracing. He also recorded his wife speaking frankly about her diagnosis—"I'm very private, so doing that video was really difficult," Laila told me—and encouraged her to start a blog to chronicle the emotional highs and lows of awaiting a transplant.

The couple set a goal of $72,000—the amount they'd calculated, with the help of a social worker, that they would need to sustain themselves for a year or two after the transplant. It sounded like a lot, but then, GoFundMe's homepage was full of campaigns raising six-figure sums. Other people had done it, Richard figured. Why not them?

His high hopes were promptly crushed. For days after the campaign went live, not a single person contributed. After about a week, the first donation came in, then a few more, but, Richard said, "the momentum was short-lived. And that was it." Laila wrote a few more blog posts—about cardiac stress tests and the "phlebotomist vampires" who took vials of her blood—before running out of steam. As she put it: "What do you want me to say? 'It's horrible'? Nobody wants to hear that. Better to not say anything."

Search the GoFundMe site for *cancer* or *bills* or *tuition* or *accident* or *operation* and you'll find pages of campaigns with a couple thousand, or a couple hundred, or zero dollars in contributions. While the platform can be a stopgap solution for families on the financial brink—one study estimated that it prevented about 500 bankruptcies from medical-related debt a year, the most common reason for bankruptcy in the U.S.—the average campaign earns less than $2,000 from a couple dozen donors; the majority don't meet their stated goal.

When I met the Roys at a Starbucks in the Memphis suburbs, not far from Chauncy Black's new house, they told me that they were grateful for the $1,645 donated by 23 people—and yet the experience had left them deflated. They'd essentially created a marketing plan for their pain, revealing intimate details of their life for a chance at having strangers pay their bills, and hardly anyone had bought in. Had they framed Laila's illness in an unappealing way? Should they have been more confessional, or less? "I was weeping [in the video], and I'm not a weepy person," Laila said. "It could come off as contrived. I don't know."

Part of the allure of GoFundMe is that it's a meritocratic way to allocate resources—the wisdom of the crowd can identify and reward those who most need help. But researchers analyzing medical crowdfunding have concluded that one of the major factors in a campaign's success is who you are—and who you know. Which sounds a lot like getting into Yale. Most donor pools are made up of friends, family,

Richard and Laila Roy essentially created a marketing plan for their pain, revealing intimate details of their lives. But hardly anyone bought in.

and acquaintances, giving an advantage to relatively affluent people with large, well-resourced networks. A recent Canadian study found that people crowdfunding for health reasons tend to live in high-income, high-education, and high-homeownership zip codes, as opposed to areas with greater need. As a result, the authors wrote, medical crowdfunding can "entrench or exacerbate socioeconomic inequality." Solomon calls this "hogwash." The researchers made assumptions based on "limited data sets," he said, adding that GoFundMe could not give them better information, because of privacy concerns.

The Roys did not have a robust social-media network, or real-life one, for that matter. A native of England, Richard has no family nearby, and his wife's only relatives are her aging mother and a sister. Laila had deleted her Facebook account not long after her twins' premature birth, a tense, precarious time when vague well wishes and "likes" from acquaintances only made her feel more alone. Richard worked from home and had only a couple hundred Facebook friends. "Maybe if he worked for a large local company and I worked for a large local company, maybe if we were churchgoers—that's another network. But I don't go to church, and he doesn't either," Laila said. "I have been told explicitly by social workers that you should go to church just to network. But I try not to be a hypocrite."

What's wrong with you also influences whether you score big with medical crowdfunding, according to the University of Washington at Bothell medical anthropologist Nora Kenworthy and the media scholar Lauren Berliner, who have been studying the subject since 2013. Successful campaigns tend to focus on onetime fixes (a new prosthetic, say) rather than chronic, complicated diagnoses like Laila's. Terminal cases and geriatric care are also tough to fundraise for, as are stigmatized conditions such as HIV and addiction- or obesity-related problems.

"It's not difficult to imagine that people who are traditionally portrayed as more deserving, who benefit from the legacies of racial and social hierarchies in the U.S., are going to be seen as more legitimate and have better success," Kenworthy told me. At the same time, the ubiquity of medical crowdfunding "normalizes" the idea that not everyone deserves health care just because they're sick, she said. "It undermines the sense of a right to health care in the U.S. and replaces it with people competing for what are essentially scraps."

As Laila's GoFundMe sputtered out, Richard grew to resent the people raising tens of thousands for sick pets. At his lowest moments, he wondered whether the campaign would have been more successful if Laila had been a cat.

Richard's bitter feelings reminded me of something Berliner had observed when we spoke: "There's a lot of secrecy and shame around the ones that don't receive funding. If it's a way to perform need, how must it feel to put yourself out there and not receive anything in return?"

Laila is still waiting for a new pancreas. "I don't like to show weakness," she told me. "Unfortunately, with GoFundMe, you have to. I suppose if I'd been one of those people who found an abandoned hedgehog and created a backyard sanctuary for hedgehogs and asked for $50 and got $100,000, I'd be super happy with GoFundMe. But all I've done is expose myself."

In late July, a few miles outside El Paso, Texas, a couple hundred people gathered under a white tent that was barely cooled by feeble portable air conditioners. They were there for a symposium on border issues hosted by the man behind GoFundMe's biggest-ever fundraiser, an Iraq War veteran and triple amputee named Brian Kolfage. The event had the feel of a smaller, sweatier Trump rally; a man in a sea-foam-green Trump Golf Club polo mingled with a woman in a pale-pink MAGA hat. The atmosphere was gleefully triumphant. "Welcome to the wall," a grinning man boomed every time a new group entered the tent.

The star of the day was a fence made of steel slats sunk into a concrete foundation that climbed up a 30-degree slope, dead-ending into the side of the mountain. On the other side of it was Mexico. Millions of dollars raised on GoFundMe had been spent to build this border barrier on private land in Sunland Park, New Mexico.

The gathering had drawn donors and right-wing celebrities. At a buffet lunch, former Kansas Secretary of State Kris Kobach spoke with a Border Patrol agent about a child who had died in custody, and

the former Trump strategist Steve Bannon posed for selfies with fans. The next day, Donald Trump Jr. would show up in a limo to speak about his father's reelection campaign.

Outside the tent was a lemonade stand manned by another GoFundMe entrepreneur, a gap-toothed 7-year-old who wore a silver necklace that read "Build the Wall" in Hebrew. The boy, Benton Stevens, had briefly become famous in February when his pro-Trump hot-chocolate stand made the national news; his mom, Jenn, channeled the attention into a GoFundMe benefiting Kolfage's border wall that raked in more than $20,000. This afternoon, Jenn told me that she suspected that Kolfage had been discriminated against by GoFundMe. "I think he had a harder time than the #MeToo movement, if you know what I mean," she said darkly. Kolfage, however, was in high spirits. Posing for photographs next to the wall, he had nothing but praise for GoFundMe. "They were very good to us," he said.

Later, during presentations, speakers called immigration an "invasion" and an "infection." On one panel, the project's construction manager, "Foreman Mike," compared the building of the wall to a "mini D-Day." Immigrants, he said, "are coming here to do damage. They're coming here to steal *your* money. It's gotta stop. You people, the American patriots, are the ones that are leading this charge. This is the firing of the first shot."

One week later, a man who would tell police he was targeting Mexicans gunned down 22 people with an assault rifle at the Cielo Vista Walmart in El Paso—a 25-minute drive from the wall built with GoFundMe dollars.

Kolfage's record-breaking campaign began with frustration. It was mid-December 2018, and the U.S. government was teetering on the edge of what would become the longest shutdown in the country's history, the main point of contention being the $5 billion President Trump insisted was necessary to construct a "big, beautiful wall" along the southern border.

At the time, Kolfage was a motivational speaker, conservative media entrepreneur, and coffee salesman who was not particularly well known outside conspiratorial right-wing circles. His personal brand leaned on his history of heroism: During a tour in Iraq, a mortar had exploded three feet away from him. Both of his legs and his right hand had to be amputated, but Kolfage made a tenacious, remarkable recovery. He received a Purple Heart and went on to study architecture at the University of Arizona.

In the run-up to the 2016 election, Kolfage had become part of the chaotic online-media ecosystem centering on the Trump campaign. He operated Freedom Daily, a site that posted articles under inflammatory, if not outright false, headlines: "Obama-Led U.N. Has Just Made It Official, U.S. to Immediately Pay Blacks 'Reparations' "; "BREAKING: Civil War About to Erupt in Texas After What Rabid Mob of Migrants Did at Capitol." (Kolfage points out that these stories appeared only after he sold Freedom Daily, in December 2015.)

In February 2018, he took over the Facebook page for Right Wing News, which attracted more than 3 million followers and tens of millions of monthly pageviews. But eight months later, Facebook removed it, along with the pages of hundreds of other sites, including another affiliated with Kolfage called Military Grade Coffee. In a statement, Facebook contended that the pages had been taken down because they'd "consistently broken our rules against spam and coordinated inauthentic behavior." Some of the pages had used fake accounts to build traffic, the company asserted, while "others were ad farms using Facebook to mislead people into thinking that they were forums for legitimate political debate."

In interviews after the purge, several of Kolfage's former employees at Right Wing News and Freedom Daily echoed Facebook, saying that their boss had asked them to sensationalize and fabricate content, including by Photoshopping President Barack Obama's head onto other people's bodies to create the illusion that he was having an affair. Kolfage denies the claims; on Twitter, he described his exile as censorship of conservative ideas and a violation of his First Amendment rights. He asked people to sign a petition championing his protest against Facebook: "We need 1 Million signatures to take to the White House!" He also set up a GoFundMe, to collect money to sue the company: "I gave 3 limbs, what are you willing to give?" The campaign raised $73,866. Two months later came the border-wall brainstorm: Kolfage named the page "We the People Will Build the Wall" and set the donation target at $1 billion.

SOLOMON TOLD ME that he wants GoFundMe to be "the take-action button for the internet." When major news events—a hurricane in Puerto Rico, wildfires in California—preoccupy the nation, or the world, GoFundMe has positioned itself as the venue through which people can provide tangible help. But with the polarization of politics, GoFundMe is being used in ways that nobody ever envisioned. While that may add to the bottom line, it puts the platform's good-vibes, "spread empathy" brand to the test.

In 2014, after the Ferguson, Missouri, police officer Darren Wilson shot and killed an unarmed teenager, Michael Brown, a pseudonymous user created a campaign to support Wilson. It reaped in excess of $200,000—more than a GoFundMe for a Michael Brown memorial fund—and donors used the comment section to spew racist bile: "I support officer Wilson and he did a great job removing an unnecessary thug from the public!" GoFundMe deleted comments that it deemed to be in violation of its terms of service, but otherwise said its policy was to not get involved: "Much like Facebook and Twitter, GoFundMe is an open technology platform that allows for the exchange of ideas and opinions."

At Richard's lowest moments, he wondered whether the fundraiser would have been more successful if his wife had been a cat.

Bannon had an idea: Why not build the wall on nongovernment land, and emphasize private enterprise's superiority over "wasteful" public programs?

Yet what it means to be an "open technology platform" is evolving for GoFundMe, along with the other prominent social-media players. A few months after the Brown and Wilson fundraisers made the news, the company changed its terms of service to forbid "campaigns in defense of formal charges or claims of heinous crimes, violent, hateful, sexual or discriminatory acts"; later that year, when a GoFundMe was set up for Michael Slager, a South Carolina police officer who shot an unarmed black man in the back, the company eliminated it within a day. Other polarizing, high-profile fundraisers—for border-militia groups, for an Australian rugby player fired for making homophobic comments—have been permitted for a few days, before being deleted amid an outcry. Campaigns funding abortions were briefly banned but now are allowed. Earlier this year, the company ousted anti-vaccination fundraisers for violating its policy against spreading misinformation, but campaigns on behalf of other questionable medical treatments—from stem-cell injections for spinal-cord injuries to homeopathic cancer care—remain active.

As for the GoFundMe wall campaign, it reportedly caused strife within the company. In private online chats, employees vented to one another, and tried to build a case that the fundraiser violated the terms of service. But ultimately GoFundMe decided that "We the People Will Build the Wall" was in compliance with its rules.

Brian Kolfage, an Iraq War veteran who sought funding for a border wall, told me: "We got $50,000 that first day, and we were like, 'Whoa, that was fast.'"

WILL SEBERGER/ZUMA PRESS/ALAMY

THE WALL CAMPAIGN eventually amassed $25 million from more than 200,000 donors. As it was gaining traction, Kolfage flew to Washington, D.C., right before Christmas 2018 to meet with Bannon and members of the House Freedom Caucus. At the townhouse that serves as Bannon's personal headquarters, Bannon explained to Kolfage that donations to the government couldn't be earmarked for a specific purpose, like, say, the wall. "I said, 'Are you sure your folks just want to write a check to the general fund?'" Bannon told me. Kolfage toyed with the idea of giving the money he'd collected so far to someone else—a charity that helped kids? the Shriners?—but Bannon had a different notion: What if Kolfage put together a team to build the wall himself, on nongovernment land? Doing so would sidestep the legal issues; it would also be a way to emphasize private enterprise's superiority over "wasteful" public programs. "It was an off-the-cuff idea," Kolfage told me. "And everyone was like ... *yeah*." He registered a nonprofit called We Build the Wall, with Bannon as the advisory-board chair.

GoFundMe allowed Kolfage to change the terms of his campaign, although he'd have to contact the 200,000 contributors individually and ask them to opt in to the new mission. After the opt-in period was over, the account dipped to $14 million. (Not because a large number of donors rejected the revised plan, Kolfage said, but because people couldn't be reached.) Meanwhile, Bannon helped recruit other notable Trump-adjacent figures to the cause. Soon the board of We Build the Wall included Kobach, who'd just lost the election for governor in Kansas; Tom Tancredo, the immigration hard-liner who had dropped out of the gubernatorial race in Colorado; and the swaggering, cowboy-hatted David Clarke, who'd recently resigned as the sheriff of Milwaukee.

Critics of the crowdfunded wall continued to dismiss it as a joke or a scam—"Shocker! The GoFundMe Campaign to Build the Wall Is a Bust," ran a *Daily Beast* headline—until, on Memorial Day, Kobach went on Fox News to announce that the first section of the wall was "almost done." On social media, Kolfage announced "a massive wall party for our donors," as well as "live cameras ... so you can watch the illegals try to scale it and fail."

The construction of the half-mile, 20-foot-high barrier almost immediately faced legal challenges. The mayor of Sunland Park said that the group initially lacked the necessary permits; the construction also ran into trouble with the International Boundary and Water Commission, the federal agency charged with maintaining the border. The ongoing conflicts didn't dampen the campaign's appeal. After the half-mile

Barbara and Chauncy appreciate that their new home is in a safer neighborhood, but they don't always feel welcome there.

section of wall was built, Kolfage updated the campaign: "We are about to surpass the liberal #MeToo movement for the largest Gofundme ever," he wrote. "Theirs was funded by hollywood celebs, ours American patriots. Lets get it done!"

The GoFundMe wall so far covers less than 1 percent of the border, and significantly extending it won't be easy. Most of the land abutting Mexico is controlled by the federal government, and in states like Texas, where the borderlands are largely in the hands of private entities, landowners—including Republicans—have resisted the intrusion of a wall. But by at least one standard, the wall campaign has been a rousing success. Kolfage has claimed that it netted him 3.5 million email addresses—a treasure trove for political fundraising, and one that's already been used to solicit donations to Kobach's 2020 Senate campaign.

THIS SPRING, after I reached out to Matt White, he decided to reconnect with Chauncy and his family. He arranged for us all to meet in July at the Blacks' new home, where several of Chauncy's brothers and friends chatted in the living room while Barbara bustled around the kitchen.

Matt manned the grill, and as he flipped burgers in the backyard, he told me he'd been wounded when people insinuated that he'd profited from his "discovery" of Chauncy. Matt had received a trust after his father died, and he'd decided to set up something similar with the GoFundMe donations. Overseen by an attorney, the trust is intended for big-ticket items such as education, vehicles, and work equipment, Matt said, but Chauncy and Barbara occasionally have gotten permission to use it for living expenses. According to Barbara, the family largely subsists on intermittent money from Chauncy's lawn-care gigs and her $500 monthly Social Security check. Some of the GoFundMe money is invested in a mutual fund, Matt said. "It'll probably be worth about $1 million by the time [Chauncy's] 40," when he'll have unfettered access to the account.

Chauncy himself, the center of all this swirling attention, wasn't eager to talk to yet another reporter. He'd grown into a lanky young man, scrupulously polite and diligent with his "Yes, ma'ams," but quick to slip away to his girlfriend or his PlayStation. Finally, I tracked him down in his room, where he kept his eyes fixed on the basketball players darting across the TV screen while he answered my nosy questions. His life was easier than it had been before, he said, but that didn't mean it was easy. Lawn work wasn't exactly lucrative—and he was frustrated that the lawyer who administers the trust wouldn't more readily give him money just to live. He dreamed of going to New York or Atlanta, but had no idea how he would get there. When I asked if the spotlight had ever felt overwhelming or intrusive, Chauncy dismissed the idea. He hadn't minded the attention—it was pressure, and pressure makes him work harder. Pressure is good.

While the Blacks appreciate the fact that their new neighborhood is safer and quieter than their old one, they don't always feel welcome. "We're the only black boys around here," Chauncy's friend Richard told me. "Anytime something's going on, the sheriff is riding past, stopping by." In particular, Chauncy would tell me two months later, they'd had problems with a white neighbor, a man whom Chauncy blames for getting him arrested twice this summer: once for misdemeanor assault and once for reckless endangerment, after the police searched the house and found a gun. Formal charges haven't been filed in either of the cases, which according to Chauncy are based on "lies." Recently, he said, his family had begun to consider moving.

After visiting Chauncy and Barbara that July afternoon, Matt and I drove back to my hotel. During the ride, he told me that people still ask him to create GoFundMes. "They think I have the Midas touch." He usually declines, but every once in a while the Holy Spirit falls on him and he agrees, he said, though mostly he just sends a gift card—"because GoFundMe can go viral, and that makes things difficult." A

Rachel Monroe is the author of Savage Appetites: Four True Stories of Women, Crime, and Obsession.

Jimmy Hoffa, My Stepfather, and Me

Chuckie O'Brien, a Hoffa aide with Mob ties—and my stepfather—had a self-serving take on secret government surveillance. But as I later discovered when I worked at the Justice Department, Chuckie was right about the government's tendency to skirt the law under cover of executive authority.

By Jack Goldsmith | Illustration by Joan Wong

ASSOCIATED PRESS; BETTMANN/GETTY


REC

ON JUNE 16, 1975, when I was 12 years old, my mother, Brenda, married Charles "Chuckie" O'Brien, who a few weeks later would become a leading suspect in the notorious disappearance of Jimmy Hoffa, the former president of the Teamsters union.

Chuckie had known Hoffa since he was a boy, loved him like a father, and was his closest aide in the 1950s and '60s, when Hoffa was the nation's best-known and most feared labor leader. Soon after Hoffa went missing, on July 30, 1975, the FBI zeroed in on Chuckie. Chuckie had been by Hoffa's side during Attorney General Robert F. Kennedy's long pursuit of Hoffa for Mob ties and union corruption, and in 1967 it was Chuckie who had accompanied Hoffa when his boss reported to federal marshals and began a nearly five-year prison term. But in late 1974, Chuckie and Hoffa had had a falling out, and a slew of circumstantial evidence connected Chuckie to the disappearance. The FBI quickly concluded that Chuckie had picked up Hoffa and driven him to his death—a theory that has currency to this day, at least in the public mind.

The government never proved Chuckie's involvement, and Hoffa's remains have never been found. But the Hoffa investigation enveloped Chuckie and eventually ruined his life. In the midst of this maelstrom, Chuckie and I grew close. He formally adopted me when I was 13, and found time despite his legal troubles to give me the love and attention I had never received from my biological father. I revered Chuckie in my teens. The wise guys I met through him were kind and, to my young eyes, upright gentlemen. And it was thrilling to be associated with the Teamsters union in an era—typified by C. W. McCall's hit song "Convoy" and the adventures of Burt Reynolds in *Smokey and the Bandit*—that glorified trucker defiance of authority.

When I left home for college, I read for the first time books that confidently pinned Hoffa's disappearance on Chuckie. I also came to understand that the Mafia was real and dangerous, and that Chuckie had a history of criminal acts ranging from theft to assault. By the time I went to law school, I had grown apprehensive about Chuckie's potential impact on my life. In my mid-20s I broke with him, brutally and completely. This proved to be a good career move; otherwise, I never would have obtained the security clearances I later needed for several government jobs, which culminated in a 2003 appointment by George W. Bush to be the assistant attorney general in charge of the Justice Department's Office of Legal Counsel.

I did not know much about the history of government surveillance, or the government's accompanying abuse of the law, when I began working at the Justice Department.

It was during that Justice Department stint, more than 15 years after I renounced Chuckie, that I reconsidered some of the things he had told me in my teens about executive-branch abuses and concealments. That reconsideration would eventually lead me to seek his forgiveness and then, after years of conversations and research, to conclude that he was innocent in Hoffa's disappearance. What led me down this improbable path was my work on Stellarwind, President Bush's post-9/11 anti-terrorist program of warrantless surveillance activities inside the United States, conducted by the National Security Agency, which swept up vast amounts of information about innocent Americans.

In my youth, Chuckie had spewed bile about Bobby Kennedy's surveillance abuses against him, Hoffa, and their friends in organized crime. "They can break every law there is, but they got 'backup,'" Chuckie would say, referring to the government's tendency to skirt the law in secret even as it enforced the law against others, and to justify its actions by claiming executive authority.

For decades, I had dismissed Chuckie's assessment as uninformed and self-serving. But while working on Stellarwind, I discovered that he had been right. Executive-branch lawyers had approved the program in secret even though it was difficult to square with congressional restrictions on government surveillance. Such "backup," I came to realize, was a crucial element in a recurrent pattern in the history of government surveillance: The executive branch, responsible for security, employs the latest technology against an enemy within, and in the process, it often quietly bends or breaks the law; after scandalous revelations, it secures new legislation to put the surveillance practices on a sounder legal footing; finally, a "new normal" is established before the cycle begins anew.

I DID NOT KNOW much about the history of government surveillance, or the government's accompanying abuse of the law, when I began work on Stellarwind. Much of that history, especially about the Justice Department's accommodating role, is still not widely understood.

Since the invention of the telephone and the miniature microphone, the government has used these technologies in criminal and national-security investigations to listen in on private communications without the targets' knowledge. The government's appetite for the valuable information it gathers from wires, bugs, and other forms of electronic surveillance has always been insatiable. Congress and the courts have intermittently imposed legal restrictions to check the obvious threat to privacy this appetite poses. But under pressure to find and defeat various subversive forces in American society, real or imagined, the executive branch has always found secret work-arounds.

Among the early targets, I came to learn, were Nazi spies inside the United States.

On December 11, 1939, three months after Hitler invaded Poland, the Supreme Court ruled that a federal statute barred the government from using evidence gleaned from wiretaps in court. Attorney General Robert Jackson quickly announced a ban on wiretapping. But President Franklin D. Roosevelt overruled Jackson after FBI Director J. Edgar Hoover complained that the ban made it too hard to meet the growing menace of spies and saboteurs on American soil. FDR acknowledged in a secret memorandum that government wiretapping "is almost bound to lead to abuse of civil rights." But he concluded, unconvincingly, that "the Supreme Court never intended any dictum ... to apply to grave matters involving the defense of the nation." Jackson acquiesced, and government wiretapping continued.

Henceforward, whenever a legal obstacle to electronic surveillance arose, Hoover would complain to his Justice Department or White House superiors about the dangers of going dark. Given the urgency of finding and defeating the enemy, these officials tended to interpret away the limits on lawful executive action—a task made easier by the fact that decisions usually were arrived at in secret, beyond judicial scrutiny.

Hoover's next need for backup concerned a different threat to national security (communism) and a different technology (microphone bugs). In the course of its investigations, the FBI often broke into homes or offices to plant bugs. In a 1954 opinion, Robert Jackson, by then a Supreme Court justice, made clear that this practice "flagrantly" violated the Fourth Amendment's prohibition of unreasonable searches and seizures. But Hoover wrote to the attorney general at the time, Herbert Brownell Jr., to emphasize the stakes for national security should bugs be barred. Brownell then secretly authorized the FBI to resume bugging spies, saboteurs, and other "subversive persons," even if that meant physical invasion of homes and offices, because "considerations of internal security and the national safety are paramount."

Hoover wasn't done. In the late '50s, he wanted to extend microphone surveillance to meet a different threat from a different kind of enemy within: not foreign subversion but the domestic criminal activities of gangsters. Bugging possible foreign agents was already a legal stretch. Bugging the Mob was an even bigger stretch, because breaking in to plant bugs on suspected domestic criminals goes to the core of what the Fourth Amendment prohibits. Hoover's FBI went there anyway, based on a preposterous interpretation of Brownell's questionable secret ruling. The next attorney general, William Rogers, knew what the FBI was doing and went along with it. The bugging remained hidden from the public.

Teamsters President Jimmy Hoffa (left) *and his aide Chuckie O'Brien leave the federal courthouse in Chattanooga, Tennessee, during Hoffa's trial for jury tampering.*

ROBERT W. KELLEY/LIFE PICTURE COLLECTION/GETTY

Rogers's successor, Robert F. Kennedy, continued this "don't ask, don't tell" approach to the use of bugs as part of the campaign against organized crime. He pushed the FBI to confront the Mob more aggressively, and he eagerly consumed the fruits of Hoover's surveillance. When the bugging was finally revealed, in the mid-'60s, Kennedy denied knowledge of any illegality. A great deal of evidence suggests that he was not being candid. And as the journalist Victor Navasky has noted, "To the extent that Kennedy was ignorant of the FBI's bugging practices, it was an administrative failure so flagrant that Kennedy is morally chargeable with the consequences of his ignorance."

THE FBI MADE secret recordings from the hundreds of microphones it installed during the Kennedy years. Unbeknownst to Chuckie, the FBI frequently picked him up on two of them. In early 1961, the bureau placed one of the bugs in the office of the Detroit Mafia capo Anthony Giacalone, with whom Chuckie had been close since he was a boy. It later placed a bug in the apartment of Sylvia Pagano, Chuckie's mother, in Detroit's riverfront Gold Coast neighborhood.

The FBI was interested in Giacalone because of his criminal activities and because he had done business with Hoffa for decades. It was interested in Pagano because she worked with Giacalone and was close to Hoffa. Pagano had introduced Hoffa to the Detroit crime family, and to Chuckie, in the early '40s. She had enormous influence with Hoffa, including as a go-between for many of the loans to the Mafia by the Teamsters pension fund in the '50s and '60s. She was also close to Hoffa's wife, Josephine, as was Giacalone.

A few months after the FBI installed the Giacalone bug, the Supreme Court

reiterated that such surveillance was "beyond the pale." But the FBI—confident in its backup from the top—ignored the Court's decision. For three years, the bugs swept up the full range of conversation—not just about criminal activity but also about sex, family and health matters, political and religious opinions, and personal secrets. FBI agents transcribed the conversations with few redactions. They often summarized the transcripts in memorandums that misleadingly attributed the information to an "informant" and urged "care" in dissemination. These documents were kept in a secret file called "June" that was unknown to the public and little known within the bureau.

I have read thousands of pages of the June transcripts and memorandums from the Giacalone and Pagano bugs. The FBI gave the documents to the House Select Committee on Assassinations for its 1976–79 investigation into the Mob's possible involvement in the killing of John F. Kennedy. Many of them are available today through the Mary Ferrell Foundation, which has a repository of documents related to JFK's assassination. To read the June transcripts is to descend into an intimate, vulgar, gossipy, and sordid realm of unguarded conversations that took place under an assumption of privacy. Chuckie had always spoken of Jimmy and Josephine Hoffa's relationship to each other, and to his mother and Giacalone, as one of mutual love and friendship. But the conversations picked up by the bugs reveal a darker reality.

To give one example: The bugs expose Josephine Hoffa's mental-health challenges and ghastly struggles with addiction. Hoffa was perpetually on the road during this period—union business, criminal trials—and was callously indifferent to his wife's condition. Pagano was given responsibility for trying to control Josephine's alcoholism, but she grew bitter as Josephine became more and more difficult to manage. To fight her desperate loneliness, Josephine had a fiery affair with a low-level Detroit mobster. Just after it ended, Giacalone plotted with his brother, Vito, to rob the safe in Hoffa's Washington, D.C., apartment—Hoffa was away on trial, in Tennessee—while Vito and Josephine "zoop it up." That plot failed when Giacalone could not get into the safe. But he succeeded a few months later in robbing Hoffa's Miami Beach apartment while Pagano and a drunken Josephine were out to dinner.

These are but a few scraps of the information about Hoffa's circle that the FBI gleaned from the thousands of hours of June recordings. The agents learned much, much more, because Josephine, Pagano, and Giacalone spent a lot of time together—often with Chuckie—in the bugged rooms. They also communicated almost daily with Hoffa, usually through Chuckie, and often discussed, with the FBI listening in, what Hoffa was saying, thinking, and doing. Hundreds of other organized-crime figures and associates in Detroit and around the country involuntarily disclosed similarly intimate information to the FBI via illegal bugs in their homes and offices.

To read the June transcripts is to descend into an intimate, vulgar, gossipy, and sordid realm of unguarded conversations.

THE BUGS USED on mobsters in the late 1950s and early '60s are a mostly forgotten slice of decades of surveillance abuses. Reform finally came after the FBI's practices leaked to the press in the mid-'60s. The first element of reform was the Justice Department's acknowledgment of the bureau's bugging and wiretapping, and its pledge to the Supreme Court to review pending cases for reliance on illegal surveillance.

My stepfather was an improbable beneficiary. Chuckie had been convicted in 1965 of stealing goods from a U.S. Customs warehouse in Detroit. But in 1967, after then–Solicitor General Thurgood Marshall revealed that the FBI had overheard Chuckie talking to his lawyer about his case in Giacalone's office—a possible violation of his constitutional right to counsel—the Supreme Court vacated his conviction and ordered a new trial, assuring Chuckie a tiny place in the annals of jurisprudence.

Later that year, the Court dramatically expanded Fourth Amendment protections against electronic wiretapping. Then, in 1968, Congress passed new legislation on the use of wiretaps and bugs. Authorization now required probable cause of a crime, a judicial warrant, and other procedures, and it criminalized electronic interception in violation of these rules. It put real constraints on investigations. But it also allowed the government, for the first time, to use information gained from electronic surveillance as evidence in federal trials. Congress thus legitimized what had been legally dubious surveillance practices, and on balance empowered the executive branch. The Justice Department would later use this lawful means of surveillance as its main tool to diminish the Mob's power.

This transformation of American surveillance law was followed, in 1975, by a comprehensive vetting of U.S. intelligence practices by a Senate select committee chaired by Senator Frank Church. The Church Committee's final report exposed decades of electronic-surveillance abuses by the government, along with extensive evidence of illegal break-ins, mail opening, subversion campaigns, drug testing, and free-speech violations. "Governmental officials—including those whose principal duty is to enforce the law—have violated or ignored the law over long periods of time and have advocated and defended their right to break the law," the committee concluded. In other words, the violators had backup.

The courts and Congress still had work to do after 1975. One outstanding issue was whether the president could continue to order electronic surveillance without judicial approval in national-security cases, as FDR had done in 1940. Congress addressed that issue in the 1978 Foreign Intelligence Surveillance Act (FISA), a landmark law that required electronic surveillance of suspected foreign agents to be authorized by a special court. This was the law that I would confront a quarter century later, when I began poring over cases and documents related to Stellarwind.

STELLARWIND FIT a familiar pattern. After 9/11, government officials faced a deadly new foe they feared they could not find and stop using traditional tools. Al-Qaeda had been empowered by technological developments, especially ones that enabled the growth of various new forms of global communications. But these and other innovations also empowered the U.S. intelligence community to surveil in new, more robust ways—especially because it had what then–CIA Director Michael Hayden described in 2006 as a "tremendous home field advantage" in intercepting global communications. In October 2001, President Bush authorized the NSA to collect targeted international telephone and email conversations of citizens and noncitizens, as well as vast amounts of telephone and email metadata. Government lawyers signed off on the program in secret, even though the collections lacked the judicial approval that FISA seemed to require.

When I arrived at the Justice Department, in October 2003, Stellarwind had been examined and reapproved by the Office of Legal Counsel every six weeks or so for two years. I inherited the responsibility of examining its legality at regular intervals. While I was doing so, I thought often about Chuckie—especially when I stumbled onto the 1967 decision that had vacated his criminal conviction.

While I was working one early-December afternoon, Jim Baker, a career government lawyer and surveillance-law expert, came by to help. Baker had not been involved in the initial approval of Stellarwind, in 2001, and when he'd found out about it, he wasn't pleased.

"Take a look at this," Baker said, handing me a piece of paper with scribbled signatures. It was a one-page memorandum, dated October 10, 1963, in which Attorney General Robert Kennedy had approved electronic surveillance of Martin Luther King Jr.—surveillance that yielded information the FBI would use to try to destroy King's marriage and pressure him to abandon the civil-rights movement. At the time, I was astonished to learn that Kennedy had authorized the

surveillance, without a warrant and without limit, and that he had done so based on a factually unsupported link between King and communism.

"*This* is why we have FISA," Baker explained, jabbing his finger at the document. He saw the King surveillance as a cautionary tale about the dangers of government corner-cutting. "If they think FISA is cumbersome or too slow, we can get rid of it," he said.

I didn't want to go back to those days. But I also didn't cherish the idea of upending an intelligence program that the president had deemed vital and that the Justice Department had approved since 2001, especially given that the government at the time feared another attack. After much agonizing, I concluded in March 2004 that prior Stellarwind approvals rested on a flawed understanding of how the program worked and what the law required. After a complex analysis, I disapproved the parts of the program for which I found no plausible legal support, but I upheld the parts I thought could be supported by plausible arguments.

My decision against parts of the program provoked a now-famous constitutional clash between the Justice Department and the White House—a clash that played out in part at the foot of then–Attorney General John Ashcroft's bed in the intensive-care unit at George Washington University Hospital. President Bush initially decided to continue Stellarwind despite the Justice Department's objections. But in the face of threatened resignations by then–Deputy Attorney General James Comey and then–FBI Director Robert Mueller, among others (myself included), he changed his mind and accepted the department's proposed narrowing of the program.

I was later praised by some for the steps I took in revising Stellarwind, and for standing up to the White House. Others criticized the parts of my legal opinion that approved portions of the program. With 15 years of hindsight, I don't think I would do anything differently, given the context back then. But the critics had a point, especially regarding my reliance on the president's war and national-security powers to skirt the statutory requirements in FISA. My argument traced its pedigree to Roosevelt's overruling of Jackson so that Hoover could continue looking for German spies. In fact, my opinion explicitly cited the Roosevelt precedent.

Chuckie's complaints about illegal government surveillance and Justice Department double standards turned out to be valid, and they haunted me as I did my work. Especially because the person providing backup for a secret surveillance program was now me.

MY WORK ON STELLARWIND focused on how the program operated and what the law required. I barely considered the harms of undisciplined government surveillance beyond its possible illegality. But a decade later, talking with Chuckie about the Hoffa case, I did.

A lead suspect in Hoffa's disappearance in addition to Chuckie was Anthony Giacalone. Hoffa believed he was meeting his old friend for lunch in suburban Detroit on the day he disappeared, and the FBI suspected that Giacalone masterminded the crime to prevent Hoffa from reassuming control over the Teamsters union, which the Mob had infiltrated ever more deeply in the late 1960s, while Hoffa was in prison. The government could never prove its case. So it convicted the suspects (including Giacalone and Chuckie) of crimes unrelated to the disappearance, hoping to pressure them into

Chuckie's complaints about illegal government surveillance and Justice Department double standards turned out to be valid.

talking. It used leaks and misinformation toward that same end.

One government leak emerged a year after Hoffa disappeared. On August 1, 1976, the *Detroit News* launched a three-day front-page series based on information gleaned from the Giacalone and Pagano bugs. The stories described a supposed Detroit Mafia plot to murder Hoffa in the early '60s; they explained the Detroit family's inner workings; and they included information about Josephine Hoffa's alcoholism and the Giacalones' plot to rob Hoffa's Washington safe. The *News* never mentioned that the bugs had been illegal and a gross invasion of privacy, and it never paused to note that publication of this material compounded the problem. The Hoffa story was too big, the Mafia too unsympathetic, and the details too spicy. No one was going to complain about what the newspaper had done.

Years later, I sought Chuckie's forgiveness for my two-decade rupture, and he accepted me back into his life without qualification, rancor, or drama. Our subsequent conversations led me to question the still-prevalent conventional wisdom that he had had a hand in killing Hoffa. Chuckie's supposed betrayal of Hoffa destroyed his reputation and, more devastating to him, stained his honor. In my own investigations, I learned that the circumstantial case against Chuckie was full of holes, that the government had not disclosed evidence that cast doubt on his guilt and implicated others, and that FBI agents and government lawyers who had long worked the case had concluded that he was innocent. Indeed, in July 2013 the government was on the verge of giving Chuckie a letter of exoneration, only to renege in order to avoid political heat.

The Detroit bugs came up one afternoon in 2015 when Chuckie and I were discussing the Hoffa disappearance at his home in Florida, where he lives today with my mother. He was sitting uncomfortably in a recliner at age 82, wearing a medical boot to protect his diabetes-damaged left foot. When I asked him about the 1976 *Detroit News* feature, Chuckie gave me his usual rejoinder to bad news from the government. The FBI "made all that bullshit up," he said. "They can write down anything they want for the papers."

This claim was often sound, since the government had, I discovered, leaked a lot of false and misleading information about Chuckie over the years, especially

early in the investigation of the Hoffa disappearance. But the newspaper stories contained accurate information, if illegitimately gained. He knew it, and I knew it too: I possessed the transcripts on which the stories were based, and many more.

I had long worried that showing Chuckie the June transcripts would upset him, because they painted him and his heroes—Hoffa, Giacalone, and his mother—in a dishonorable light. They would also vividly remind him of one of the worst periods of his life, when he was for the first time trapped between what he described as his "labor side" (loyalty to Hoffa) and his "Sicilian side" (loyalty to the Mob).

In deciding whether to tell Chuckie that I possessed the June transcripts, I imagined how my beliefs about family and friends, and their relationships with one another and with me, would change if I encountered years of secret recordings of their unguarded conversations. I also tried to imagine how painful it would be to read my own unwary conversations, which would not always comport with my sentimentalized sense of self and of others. And I tried to contemplate how painful it would be to read and discuss ugly truths so many years after events in my life had played out.

In thinking about this, I came to appreciate more fully the evils inherent in the government's bugging—the original surveillance, the archival permanence, and the periodic revelation of the content. It wasn't just the chilling effect on Chuckie's freedom of thought, belief, and speech—an effect that stretched back decades, to the 1950s, when he first began to suspect that he was under surveillance. It was also, more painfully, the violence against his intimate spaces and relationships, and the annihilation of the stories he told himself and the world about these spaces and relationships, and thus of his power to define and shape his life.

We tend not to take these types of harm seriously when we consider bugs planted to gather evidence against Mob figures. We tend to think such people don't deserve privacy, because they belong to an organization whose mission is to violently defy the legal system. Even the Church Committee, which railed against the abuse of government surveillance, barely mentioned the massive surveillance program against the Mob, although that program was more clearly illegal than most of the other activities the committee condemned.

But the privacy harms are the same whether the target is guilty or innocent, bad or good. The Fourth Amendment of the Constitution accepts "reasonable" intrusions on private spaces in the name of law enforcement and national security. Yet harms remain present, a trade-off even for lawful government surveillance, which the Detroit bugs were not.

My qualms did not prevent me, that afternoon in Florida, from telling Chuckie that I had the transcripts on which the leaks were based. He asked to see them. I gave him one that showed that his mother had plotted with Giacalone to rob Hoffa.

In the early 1960s, Hoffa asked Chuckie to buy thousands of copies of George Orwell's *1984* and distribute them to union locals around the country.

Chuckie read with a blank expression for two minutes. Then he winced as if he had broken a tooth, and threw the papers across the room. "I don't want to read this shit," he said, "and I don't want to talk about it."

I was not surprised by this reaction. Chuckie was confronting evidence that shattered his constructed worldview. Practically everyone on the tapes viewed the powerful Hoffa in crass transactional terms. They wanted a loan, or help with a legal problem, or his money, or more

of his time. Or they wanted to push him aside, or take advantage of him, or even knock him off. Hoffa was often treated with disrespect or disdain.

But not by Chuckie. In the thousands of pages of transcripts I read, no one displayed more affection for Hoffa than Chuckie did. In 1963, just after Hoffa was indicted on charges that would eventually send him to prison, Chuckie complained angrily to his mother that some members of the Teamsters' executive board were jockeying to force Hoffa out. "They don't care about Hoffa; they don't care if Hoffa lives or dies," Chuckie lamented to his mother in her apartment, at 6:04 p.m. on Thursday, June 13, 1963, as FBI agent Gerald R. McVittie illegally listened in.

DESPITE THE SECRECY of illegal government surveillance in the early 1960s, rumors of government snooping abounded at the time and sparked feverish concern about "Big Brother." Newspapers and magazines were filled with stories about miniature microphone devices, radio transmitters, and other examples of what Supreme Court Justice Potter Stewart described in 1961 as "frightening paraphernalia which the vaunted marvels of an electronic age may visit upon human society."

In this milieu, Jimmy Hoffa believed that the FBI "tapped his phone, opened his mail, and beamed electronic listening devices on him from half a mile away, aided by invisible powder they had rubbed onto his clothes," as Ralph and Estelle James recounted in their 1965 book about Hoffa. Whether the government illegally surveilled Hoffa himself (as opposed to just his associates) remains a contested historical question. But until the day he went to jail, in March 1967, Hoffa never stopped speaking publicly about the dangers of surveillance.

In the early 1960s, the paranoid Hoffa asked Chuckie to buy thousands of copies of George Orwell's *1984* and distribute them to union locals around the country. "Some of these poor guys, the only thing they knew was how to drive a truck or work at a warehouse," Chuckie told me. "They didn't have the knowledge of the electronic shit. Mr. Hoffa wanted them to read that book and said that this is what's going to happen to not only us but to everybody—and exactly what he's predicted has happened."

Chuckie is basically right about Hoffa's prediction. But there are several differences between today and the era in which Chuckie was secretly surveilled.

First, today's threats to privacy come not only from the government but also from the private sector—from Facebook, Google, Amazon, and the hundreds of other platforms, apps, and aggregators to which we daily turn over our most intimate secrets.

Second, the government's surveillance power has grown unfathomably since the 1960s. The "frightening paraphernalia" from six decades ago are toys compared with the redoubtable tools that allow the government to watch and record our movements and communications, and that enable it to store almost limitless amounts of data on its own or to piggyback on the masses of data that we volunteer to private firms.

And third, Congress has ratified and legitimated what were once legally tenuous surveillance techniques. It did so after the executive branch convinced legislators that the techniques were necessary for law enforcement and national security, but it imposed various legal constraints on their use. Congress had taken such steps in the late 1960s for domestic criminal investigations. It did basically the same for foreign threats, broadly conceived, first in the FISA law of 1978; then again in 2008, following public revelations about Stellarwind. Congress acted a few times when Barack Obama was president—including after the intense controversy sparked by the then–NSA contractor Edward Snowden's 2013 leak of thousands of highly classified government documents about secret surveillance practices—and acted most recently in January 2018, a year into Donald Trump's presidency.

The result of these developments is yet another "new normal" in which the government is constrained in certain respects but citizens are far more exposed to lawful government surveillance than before. This latest new normal, like earlier ones, will not prove stable. Technology develops apace. Sensors will soon be placed on practically everything. Facial-recognition and other biometric-identification techniques, along with drone and satellite surveillance, will become commonplace and extraordinarily discerning. Data-mining and pattern-detection tools, enhanced by artificial intelligence, will grow ever more powerful.

If history is a guide, the government will perceive a security advantage in using these and other tools in new ways to watch us and to predict and preempt our behavior. It will sometimes deploy the tools in secret, despite legal impediments, in order to prevent calamities threatened by new foes, many of whom will themselves be empowered by technological change. We will be outraged by the seeming excess when we find out. But the outrage will dissipate. Except in the most extreme cases of abuse or fecklessness, Congress will legalize the surveillance practice on the condition, mainly, of new procedural restraints. And we will adjust to our more naked selves.

This is a depressing conclusion for many, but it is an inevitable one. The executive branch does what it thinks it must, including conduct robust surveillance, to meet our demands for safety. The technology of surveillance races ahead of the law of surveillance, which tries to catch up in spurts, and often does an admirable job of curtailing old abuses. But the law cannot eliminate ever-growing threats, and security is elemental. And so the cycle recurs. *A*

Jack Goldsmith is a professor at Harvard Law School, a senior fellow at the Hoover Institution, and a co-founder of Lawfare. This essay is adapted from his new book, In Hoffa's Shadow: A Stepfather, a Disappearance in Detroit, and My Search for the Truth.

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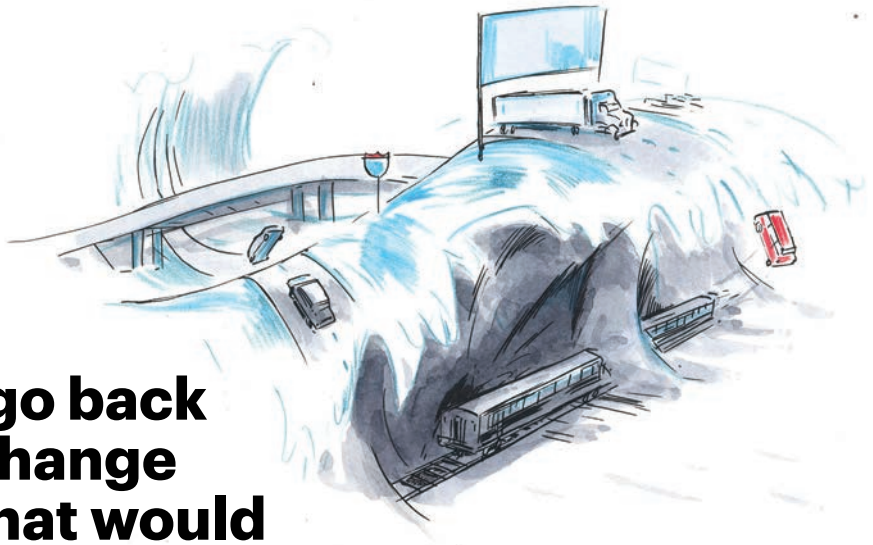

Q: If you could go back in time and change one thing, what would it be?

Anna Della Subin, author, *Not Dead but Sleeping*
In 1937, a British colonialist in Kuwait was said to have dreamed of a gnarled, uprooted tree. A dream interpreter recognized the tree, and told him that the dream meant oil would be found at the site—leading to **the discovery of one of the Earth's largest oil reserves.** One wishes he'd had insomnia instead!

William "Sandy" Darity Jr., economist and professor, Duke University
I wish that Radical Reconstruction had been made a reality after the end of the Civil War. This would have entailed the promised 40-acre land grants to the formerly enslaved, their right to full political participation, assurance of control over their children's schooling, protection by the Union Army in the South, and the arming of the freedmen for self-defense.

Samantha Kelly, history professor, Rutgers
The invention of agriculture. Imagine: far less environmental degradation and income inequality, a shorter workday for all, a varied diet and possibly better health outcomes for certain communities, and a profound confidence that the future would provide. A world without industrial agriculture would pretty much be the Eden of the Bible. Hunter-gatherer life isn't sounding so bad.

Marina Warner, historian and mythographer
I would have Ferdinand and Isabella tear up **the Alhambra Decree,** which drove out all the Jews from Spanish territories. History would look very different if the coexistence of Jews, Muslims, and Christians had continued in 1492 without this absolutist act of ethnic cleansing, religious nationalism, bigotry, and intolerance.

READER RESPONSES

Roger L. Albin, Ann Arbor, Mich.
The inception of the Eastern Gas Shales Program. This, and related Department of Energy research programs, played a large role in the development of fracking technology. The U.S. would be more likely to pursue renewable-energy sources and work to combat climate change if we didn't have a commercially successful oil-and-gas industry.

Charles Ryan, Napa, Calif.
The burning of the Library of Alexandria. Its destruction held back humanity at least a grade or two.

David Chill, Los Angeles, Calif.
Had President John F. Kennedy not been assassinated in 1963, it is unlikely that he would have escalated America's involvement in Vietnam. That seminal moment in Dallas changed the trajectory of America—and its impact is still being felt today.

Bernard Seneway, Ellicott City, Md.
The creation of the Interstate Highway System, which killed train travel and enabled urban sprawl, pollution, and inequality.

David Aalto, Etowah, N.C.
The assassination of President Abraham Lincoln. How much better the conditions in the country would be had Lincoln's conciliatory approach to reunifying the country been allowed to play out over his second term and beyond.

Richard Dengate, Rochester Hills, Mich.
The Second Amendment. Without it, perhaps today we would not be struggling to adopt a rational firearms policy.

Jeffrey Miller, North Woodmere, N.Y.
I'd let Rocky Balboa beat Apollo Creed during their first match, thereby saving humanity from 43 years of sequels and spin-offs.

Gerry O'Keefe, Olympia, Wash.
The establishment of chattel slavery in the British colonies and its continuation after the American Revolution.

Illustrations by GRAHAM ROUMIEU

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