

If women are so good at managing money,
why are so few of them doing it?

Newsweek

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GOING UNDER

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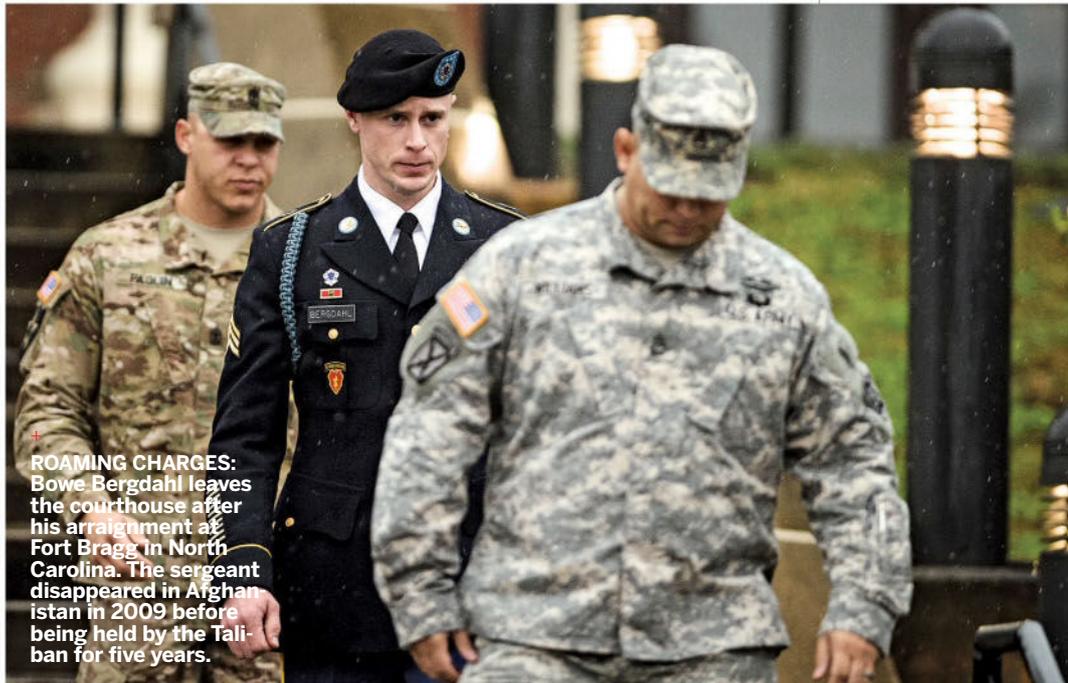
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Climate change is drowning South Florida. So where's Marco Rubio?
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BIG SHOTS

PERU

Smoking the Dead

Lima, Peru—A health worker fumigates El Angel cemetery on January 20 to guard against dengue, chikungunya and Zika viruses. Brazil and 20 other countries in the Caribbean and Latin America have documented cases of Zika, a mosquito-borne virus that can delay brain development and also, since no treatment is available, be deadly. Brazil's health ministry says nearly 4,000 babies have been born with abnormally small heads since October, and it suspects this is linked to the Zika virus. The U.S. is urging pregnant women to avoid travel to areas with the virus, and several countries recommended delaying pregnancy.



MARTIN MEJIA





USA

Lead Balloon

Flint, Michigan—A health care worker draws blood to test for lead poisoning on January 23. A federal state of emergency has been declared due to high levels of lead in the water in Flint, and residents have been forced to drink, bathe and cook with bottled water for months. The city changed its tap water source from Detroit's system to the Flint River in April 2014 in an effort to save \$19 million over eight years. Complaints about the water began about a month after the change, but officials took no action until October 2015.



BRETT CARLSEN

ENGLAND

Putin on the Hits

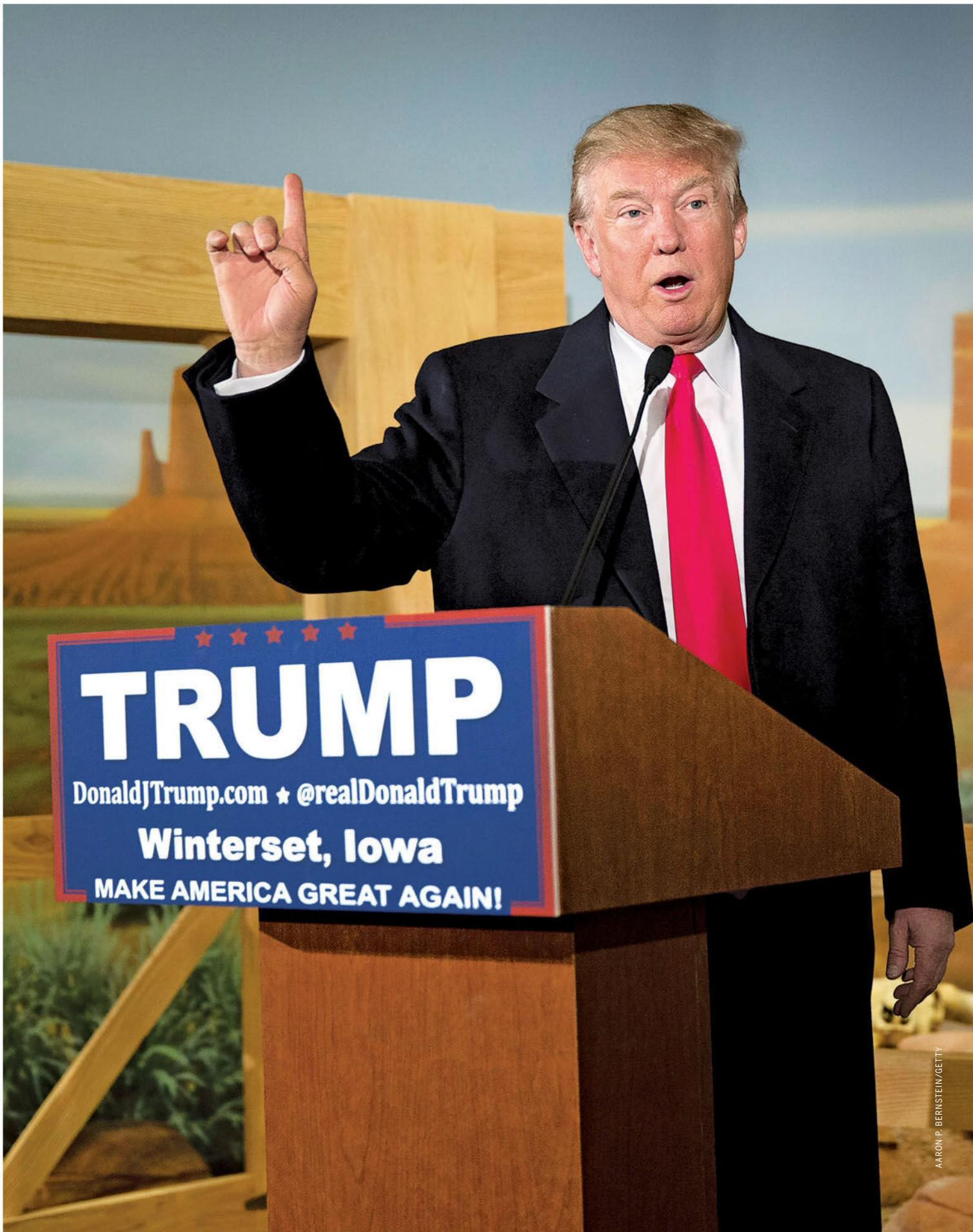
London—Marina Litvinenko, the widow of former KGB agent Alexander Litvinenko, reads a statement about her husband's death outside Britain's High Court of Justice on January 21. He died in 2006 after being poisoned with a polonium isotope; a British inquiry, published on January 21, indicated that the "operation to kill Mr. Litvinenko was probably approved" by high-ranking Russian security officials, including President Vladimir Putin. Dmitry Peskov, a Kremlin spokesman, told reporters the inquiry's findings "are capable of further poisoning the atmosphere of our bilateral ties."



BEN CAWTHRA







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Winterset, Iowa

MAKE AMERICA GREAT AGAIN!



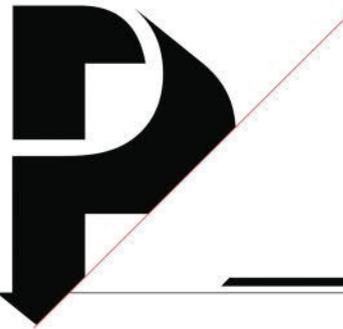
USA

Making America Grit Again

Winterset, Iowa—Republican presidential candidate Donald Trump speaks at the John Wayne Birthplace Museum on January 19, the same day he picked up the endorsement of former Alaska Governor and former vice presidential candidate Sarah Palin. On the Democratic side, Bernie Sanders enjoyed a surge in the polls over Hillary Clinton, whom he recently criticized for accepting hundreds of thousands of dollars in speaking fees from financial juggernaut Goldman Sachs. Apparently concerned by the prospect of a race between Trump and Sanders, former New York City Mayor Michael Bloomberg reportedly was considering jumping in as a third-party candidate.



AARON P. BERNSTEIN



P A G E O N E

IRAN

POLITICS

INEQUALITY

RUSSIA

ISIS

FINANCE

ONE-MAN TOGA PARTY

Ted Cruz really loves the Senate—the one that ruled ancient Rome

TED CRUZ'S onstage appearance with Sean Hannity was going well. It was February 2015, and Cruz, like all the other GOP hopefuls, was at the Conservative Political Action Conference near Washington, D.C., answering questions from the Fox News talking head designed to make Cruz look good. Hannity was playing a little word game. "I'm going to ask you about three people, first words that come to your mind," Hannity said.

After getting quick responses for Bill and Hillary Clinton, Hannity tossed out, "Barack Hussein Obama." Cruz took a few seconds, then said, "Lawless emperor."

Lawless was no surprise. President Obama's executive orders render some Republicans and Cruz in particular apoplectic.

It's the other word—*imperator*—that puzzled. *Imperator* is a Latin word, and not one of the handful, like *et*, *cetera*, *ad* and *hoc*, that have made their way into everyday English. (The word was prominent, however, in best picture nominee *Mad Max: Fury Road*; Charlize Theron's character was called Imperator Furiosa.)

In republican Rome, *imperator* was a title held

by military officers that meant commander—literally, someone who had been granted *imperium*, or command, by the Senate. Later, after Julius Caesar overthrew the republic and declared himself a god, his heir, Augustus Caesar (also a god), made the title exclusive to himself and to members of his family, the Julio-Claudian dynasty. It was used in place of *rex*—king—because, while the Romans could stomach being ruled by an autocrat, they couldn't stand having it rubbed in their faces. So more palatable terms, like *imperator* and *princeps*, were used, at least until the Romans got used to the idea of life under a tyrant.

And those emperors were unquestionably tyrants. It was in this sense that Cruz likely used the word to refer to Obama, according to Robert George, a conservative thinker and the senator's thesis adviser when he was an undergraduate at Princeton. "You have to be careful not to attribute to him more than what he's saying," George says. "I think what he's suggesting is there's just too much of a whiff of the dictatorial, the Caesarian, when any president—and Obama is now doing it—operates by executive

BY
TAYLOR WOFFORD
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MARK PETERSON/REDUX

LATIN LOVER: For Cruz, the issues and machinations dealt with by the Roman Senate are as relevant as the wit and wisdom of Reagan.



orders to legislate, especially when he himself has said he lacks the legal authority.”

Cruz knows more about classical antiquity than any of his challengers for the Republican nomination. Every would-be president has political icons—John McCain has Theodore Roosevelt—but for Cruz, ancient Rome is as relevant as Ronald Reagan. It’s the stage on which the issues he cares most about unfolded. But in a world where few outside the Vatican speak Latin (and even fewer speak classical Latin, the variant almost all of the texts that survive from the late republic and early empire are in), why does Cruz bother with these abstruse references? Sara Monoson, a professor of classics and chair of the political science department at Northwestern, has an idea.

“My own suspicion is it’s part of his effort to craft this image of himself as someone in possession of special knowledge,” she says. A dog whistle for the classically savvy, in other words. “It’s a way of cloaking yourself in a lastingness, in a claim to not be a flash in the pan,” she says, “but rather engaged in some kind of deeply important matter that’s not going to go away.”

That might be true, but Cruz’s classics

references rarely resonate with his audience.

Take, for instance, a speech on November 20, 2014, that he gave before the Senate, on Obama’s executive actions on immigration. “When, President Obama, do you mean to cease abusing our patience?” Cruz asked. “How long is that madness of yours still to mock us? When is there to be an end to that unbridled audacity of yours, swaggering about as it does now?... Shame on the age and on its lost principles. The Senate is aware of these things; the Senate sees them; and yet this man dictates by his pen and his phone. Dictates.”

If Cruz’s English sounds a little archaic, that’s because it is: His speech was an adaptation of an 1856 translation of words originally spoken in 63 B.C. in classical Latin. A few changes were made—the word *phone* wasn’t, of course, in the original—but otherwise Cruz was faithful to the text, which was meant to convince the Roman Senate to execute Lucius Sergius Catilina, whom we call Catiline, himself a member of the Senate, heir to an ancient but crumbling family. Catiline, the speech alleged, planned to overthrow the republic and murder a good chunk of his fellow senators. Following the speech, Catiline,

+ LEND HIM YOUR EARS? Cruz depicts himself as a modern Cicero, battling tyrants.

fearing for his life, fled Rome and marshaled an army. He died at the Battle of Pistoria, near modern-day Tuscany, in 62 B.C.

The senator who spoke the words that drove Catiline into exile and eventually to his death was Marcus Tullius Cicero, perhaps the most famous Roman statesman and orator who ever lived. Cicero had two great political enemies: Caesar and Catiline. If Cruz equates his political foes to Cicero's, is it fair to assume Cruz sees himself as a latter-day Cicero, defending the republic against the usurpatory Obama?

"I'm sure [Cruz] doesn't see himself as a modern-day Cicero," George says. "Anybody who runs for president has got to have a healthy ego... but you don't have to believe you're Cicero or Plato or Justinian." Others who knew Cruz at Princeton disagree. "It was my distinct impression that Ted had nothing to learn from anyone else," Erik Leitch, who lived in the same dorm as Cruz at Princeton, told the Daily Beast.

There are parallels between Cruz and Cicero, according to John Wynne, an associate professor of classics at Northwestern University who studies the Roman orator. Both men presented themselves as defenders of older, purer orders against the predations of populist tyrants. For Cicero, that meant the looming shadow of the empire; for Cruz, it's the shadow of the so-called "imperial presidency." And neither man was a native son: Cicero was born in Arpinum, about 75 miles southeast of Rome, and was thus excluded, by virtue of his foreign birth, from the highest class of Roman society. Cruz was born in Canada to a Cuban father and an American mother (he renounced his Canadian citizenship in 2014). Further, both men received sterling educations.

Cicero had the best tutors available. Cruz went to college preparatory schools in Texas before attending Princeton, then Harvard Law.

It's not a perfect analogy. Cicero, for example, was well-liked by his peers. Cruz is not. *Foreign Policy* called him "the most hated man in the Senate," and former Republican presidential hopeful Bob Dole has said he likes all of the Republican candidates this time around—"except Cruz." And though Cicero was a conservative (ditto Cruz), he agreed in principle with many of Catiline's more populist reforms, like debt forgiveness. What he disagreed with were Catiline's methods—debt relief through the murder of lenders, for instance, didn't sit well with him.

Unlike Cicero, Cruz isn't purely concerned with the opinions of the *optimates* (what Roman society called its most well-respected members).

His references to classical antiquity aren't all meant for the ears of the traditional donors class. Take, for instance, Cruz's common refrain on gun control: "Come and take it!" The phrase was supposedly spoken by the defenders of the Alamo after General Santa Anna of Mexico demanded they give up the cannons guarding the fort during the Mexican-American War. The phrase has become a mantra for the anti-gun-control crowd, and the defenders of the Alamo are revered as heroes who fought and died for their God-given freedoms against an overweening dictator.

Of course, the Alamo defenders fought in defense of slavery, and Santa Anna was merely protecting his country's territory. And Santa Anna did *come and take it*: The Alamo defenders were slaughtered almost to a man. But the phrase appeals to more than just die-hard Texans. It also

"IT WAS MY DISTINCT IMPRESSION THAT TED HAD NOTHING TO LEARN FROM ANYONE ELSE."

triggers a response among Cruz's classics-savvy followers, because it harks back to classical antiquity. Supposedly, it was first spoken by the Spartan King Leonidas at the Battle of Thermopylae (on which the movie *300* is very loosely based). The Persian King Xerxes demanded Leonidas cede Sparta, to which he famously responded, "*μολὼν λαβέ*"—translated as "*molon labe*," come and take. The outcome that time was a bit different: While the Spartans were slaughtered, the Persians weren't able to take Sparta. But the outcomes don't really matter. What matters is how Cruz channels the Spartan king's belligerence to influence voters, both well-educated and less so. But only historians will be able to tell us if Cruz's appeals to Cicero and Leonidas will sway voters, who seem quite fond of the *panem et circenses*—bread and circuses—of Donald Trump. **N**



AND THE RUSSIAN BAND PLAYED ON

With HIV soaring, the Kremlin shows the world how to make an AIDS crisis worse

"I MAY BE small, but I am strong," says Anya Alimova, a 29-year-old with dyed green hair, as she picks up a heavy backpack bulging with syringes, condoms, HIV tests and other related items. It's a snowy winter's evening in east Moscow, and Alimova and her co-worker, Lena Plotnikova, will spend the next few hours distributing these potentially lifesaving supplies to some of the Russian capital's tens of thousands of drug users.

Both women work at the Andrei Rylkov Foundation for Health and Social Justice, a small, nongovernmental outreach organization that has around a dozen staff members. Russia is in the grip of an HIV epidemic, with new infections soaring among intravenous drug users, but this tiny organization is the sole source of free, clean needles in Moscow. Although the Kremlin has recently awarded generous grants to organizations such as the Night Wolves, an ultranationalist motorcycle gang, the Andrei Rylkov Foundation has not received a single kopek in state funding. "Sometimes we get yelled at by members of so-called patriotic movements, who believe we are undermining Russia's spiritual values or something," says Plotnikova, a slight, bespectacled 20-year-old.

After meeting up at a nearby metro station, Alimova and Plotnikova haul their backpacks to a 24-hour pharmacy popular with addicts because it sells a brand of eyedrops that, when injected, intensify the effect of low-grade heroin. Empty capsules of the liquid litter the sidewalk

around the pharmacy. Within minutes of their arrival, the outreach workers are approached by a half-dozen shabbily dressed men and women. "Can I get some ointment for this?" asks one middle-aged man, pulling up his sleeve to reveal angry red needle marks.

A combination of widespread intravenous drug use, ignorance of or disregard for the perils of unsafe sex, and the conservative policies that have held sway in the Kremlin since Vladimir Putin's return to the presidency in 2012 have sent HIV infection rates soaring in Russia. New HIV infections have slowed dramatically throughout the world in recent years, including in much of sub-Saharan Africa—the region worst hit by the AIDS-causing virus—but Russia is a deadly exception.

Even the official figures, which most experts agree are a significant underestimation, are terrifying. One million Russians are registered as having contracted HIV, out of a population of 143 million people, an almost twofold increase from 2010. Vadim Pokrovsky, the outspoken head of the Federal AIDS Center in Moscow, says over 2 percent of the main risk group (30- to 35-year-olds) is now HIV-positive, and around 200 new HIV infections occur every day. Pokrovsky predicts up to 3 million Russians will be living with the virus by 2020. The United Nations estimates that 1 out of every 3 HIV-positive injecting drug users in the world resides in Russia, where over 1.5 million people are estimated to be addicted to heroin.

BY
MARC BENNETTS
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ISOLATION: At this hospital in the town of Tver, there is a ward set aside for heroin users and HIV patients. Many HIV-positive Russians don't get the care they need because of discrimination.

Despite these apocalyptic figures, the Russian government provides neither clean needle programs nor opioid substitution therapy, both recommended by the World Health Organization as essential elements in the fight against HIV/AIDS. Methadone, a synthetic opiate taken orally to wean addicts of heroin, is banned in Russia, and anyone caught distributing it faces up to 20 years in jail. By comparison, in neighboring Ukraine, HIV rates have decreased among drug users every year since methadone and other harm-reduction policies were introduced in 2007, although the conflict there has recently hampered efforts to reduce transmission.

Yevgeny Voronin, Russia's top HIV specialist, decries what he says is a Western obsession

THE BEST WEAPONS IN THE FIGHT AGAINST HIV/AIDS, THE BISHOP SAYS, ARE "VIRTUE AND CHASTITY."

with the heroin substitute. "Methadone is not a magic wand," he says. He insists that a combination of increased testing and treatment with powerful antiretroviral drugs is the best way to halt the rise of new HIV infections in Russia. He also maintains that the distribution of needles would only exacerbate the problem by increasing the appetite for drug use.



The influence of the powerful Russian Orthodox Church means sex education in high schools is taboo. Bishop Panteleimon, head of the church's department for charity and social ministry, says sex ed would merely encourage teenagers to "experiment" with sex. The best weapons in the fight against HIV/AIDs, he says, are "virtue and chastity." It is an attitude echoed by Pavel Astakhov, Russia's top official for children's rights, who says the novels of Russian authors such as Leo Tolstoy contain everything a child needs to know about love and sex. Critics of Russia's approach, such as Pokrovsky, the federal AIDS center chief, have been labeled "foreign agents" by pro-Kremlin politicians.

In Germany, where sex education is taught in high schools, needle exchanges are common, and prostitution is legal, there were 3,000 new HIV infections in 2014. In Russia, whose population is nearly twice as big, around 30 times more new infections occurred over the same period, with 50 percent the result of sharing dirty needles and 42 percent due to unprotected heterosexual sex, according to Russian officials.

"The Russian government not only fails to support, it hinders the implementation of effective prevention programs that we and other non-governmental organizations attempt to carry out," says Anya Sarang, director of the Andrey Rylkov Foundation. "The importance of harm reduction programs in preventing HIV infections is recognized the world over. They exist in China, in Iran, in the United States, in Central Asia and in Eastern Europe. Russia, however, takes an aggressive, unscientific stance—and it is one of the few countries in which the HIV epidemic continues to grow."

Almost 30 years since the first registered case of HIV infection in the Soviet Union, a paucity of HIV-related public service advertising and media coverage means the virus remains the subject of rumors and wild speculation, and discrimination is widespread. "HIV-positive people have problems in hospitals, including at maternity wards. Doctors often refuse to operate on them because they are afraid of becoming infected," says Maria Godlevskaya, 32, who has been HIV-positive for over 15 years

and is a project coordinator at the St. Petersburg-based E.V.A. organization, which helps women living with the virus. "In Russia, HIV is seen as...a shameful disease, and there are lots of myths. This is one of the reasons why the epidemic grew so quickly—people don't get tested because they don't think it can affect them."

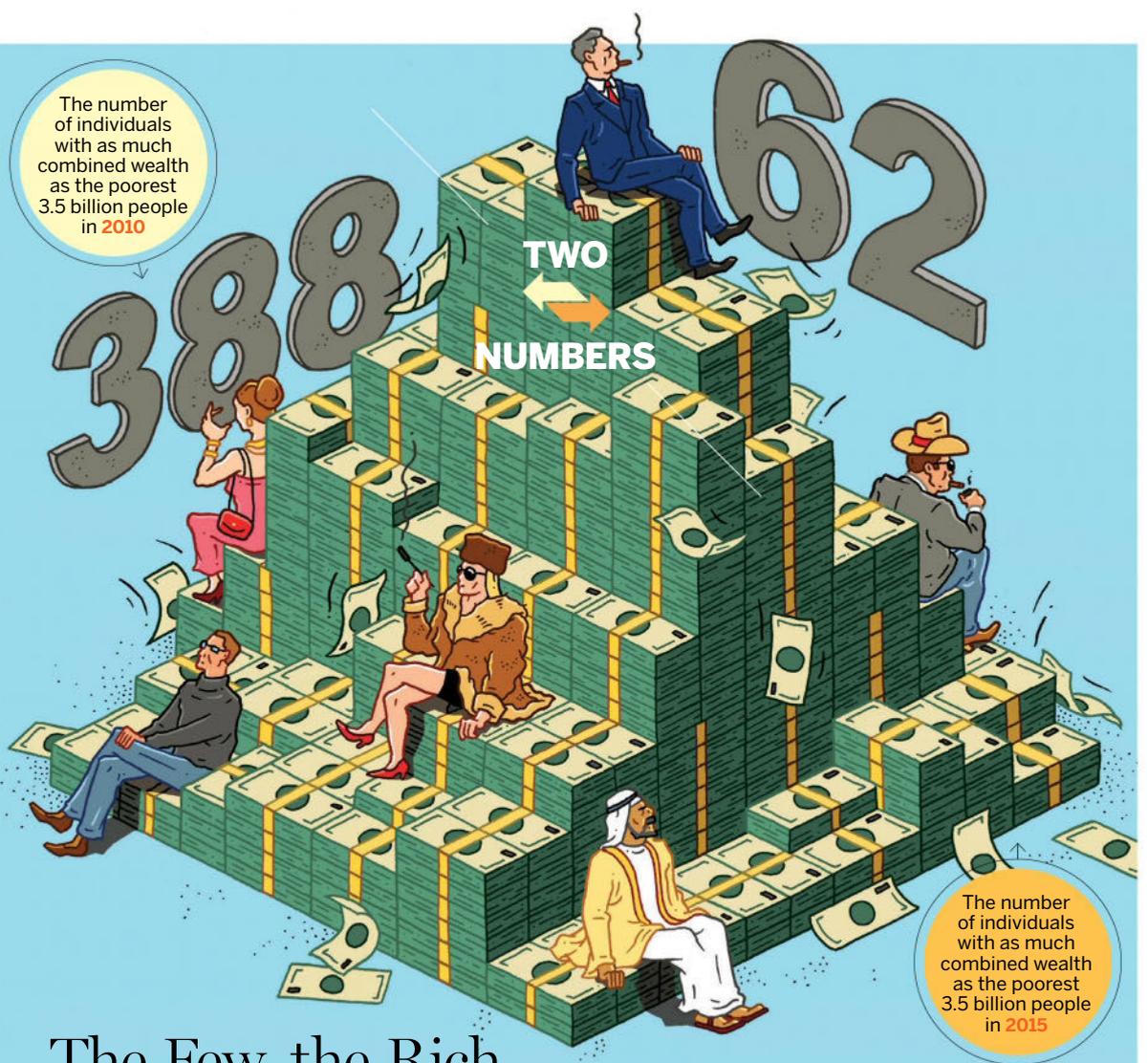
Although the Russian government shows few signs of abandoning its opposition to harm reduction programs or sex education, the scale of the country's HIV epidemic has forced the government to pay attention. In October, Prime Minister Dmitry Medvedev ordered the health ministry to double its spending on HIV care and prevention in 2016 to \$600 million. The news was welcomed by international organizations, but grass-roots activists remain cautious. "The entire system in Russia is ineffective and corrupt," says Anton Krasovsky, a well-known journalist and HIV/AIDS activist. "The government campaign against HIV is no different."

Krasovsky is right to be cynical. When the national budget was approved in December, spending on regional HIV care and prevention had been slashed by more than \$600,000, while just over half of the increase in overall funding had been earmarked for Rostec, a sprawling, state-owned conglomerate. Rostec, which has stakes in military, industrial and civilian indus-

"THE ENTIRE SYSTEM IN RUSSIA IS INEFFECTIVE AND CORRUPT."

tries, is headed by Sergei Chemezov, who is believed to be a former KGB officer and is one of Putin's closest associates. HIV/AIDS activists were puzzled by the decision, pointing out that while Rostec is now set to become Russia's sole supplier of the antiretroviral drugs necessary for HIV treatment, it has limited facilities for their production. Rostec did not respond to *Newsweek's* request for comment.

Meanwhile, HIV activists from the Andrei Rylkov Foundation continue their work with drug users on little more than public donations and an abundance of goodwill. "The Russian authorities have their own way as far as the fight against HIV and AIDS is concerned," says Alimova, as she stands outside the 24-hour pharmacy in east Moscow. She laughs as she adds, "It's just not always entirely clear what it is."



The Few, the Rich

A BUSLOAD OF BILLIONAIRES OWNS AS MUCH AS HALF THE WORLD'S PEOPLE DO

Not so long ago, the number of billionaires whose combined wealth equaled that of the poorest half of the world's population was 388. In just five years, that's fallen to 62—few enough to fit on a London double-decker bus, with seats to spare. Those 62 lucky individuals have as much money and other assets as 3.5 billion of the world's poorest people do.

The numbers are in a new report from British charity Oxfam, released on the eve of the yearly World Economic Forum in Davos, when the rich and powerful descend on a Swiss ski resort to fix the world's problems. Oxfam

policy director Gawain Kripke calls it “the annual dance for the captains of capitalism.” Before last year's meeting, Oxfam released a report saying the combined wealth of the world's richest 1 percent would overtake that of the remaining 99 percent. Sure enough, it did. This year, Oxfam urged the celebrities, entrepreneurs and politicians flocking to Davos “to reflect on this rapidly growing concentration of wealth at the very tippy-top of the global economic pyramid,” says Kripke.

Oxfam estimates the combined wealth of those 62 people at \$1.76

trillion in 2015, roughly equivalent to the gross domestic product of Canada. (All but nine of the richest were men.)

Tim Worstall, a senior fellow at the London-based Adam Smith Institute, named after the 18th-century free market economist, says while the headline number is true, it's “just not very interesting or important because that's just how wealth distribution works.” Oxfam's report also points out that extreme poverty has been halved since 1990, an achievement Worstall credits to globalization. “I'll put up with increasing inequality,” he says,

“in return for less absolute poverty.”

Kripke, however, says the poor are being left behind. For example, Oxfam says, salaries for CEOs at the top 350 U.S. firms jumped 54.3 percent from 2009 to 2014, while the wages of regular workers remained flat. “The economy after the financial crisis and the recession is beginning to grow again, and everyone takes that to be a positive,” says Kripke. “But what we're seeing is that this growth, the increased income and wealth, is being captured by the richest.”

BY
LUCY WESTCOTT
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SOURCE: OXFAM

THE NEW GIRLS CLUB

If women are so good at managing money, why are so few of them doing it?

OF ALL THE rarefied niches on Wall Street, perhaps the most opaque and exclusive is the hedge fund industry, where traders are handed millions and even billions of dollars to invest on behalf of banks, endowments, pension funds and the superrich.

This is the province of the so-called Masters of the Universe, who, if successful, can become billionaires trading other people's money. And it's the last bastion of finance where women are having serious trouble breaking in. As of 2015, less than 2 percent of hedge funds were run or owned by women—about 150 to 200 globally—and the majority of those managed less than \$100 million of funds.

At the same time, the data show that women, over the past decade, have consistently outperformed men when it comes to earning higher returns, the metric investors care about most. In fact, funds owned and run by women have returned an average of 59.43 percent since 2007, compared with an average of 36.69 percent for the whole industry, according to figures released in September by Chicago-based Hedge Fund Research Inc., which last year launched its first index exclusively tracking women.

If your initial reaction is surprise that women's returns have been trouncing men's for nearly a decade—a period that covers the global financial crisis from 2008 to 2009, the Great Recession, bailouts of entire nations like Greece and America's newfound energy boom—that's because those who write the really big checks

have barely acknowledged the trend. Rather than jumping on the opportunity to make money from it, they have done little more than let out a collective “Mehhhhhh.”

In a survey late last year by auditor KPMG, women reported that raising capital was still one of the biggest obstacles to launching their own funds, while 72 percent of investors bemoaned the lack of female talent to invest in.

The problem, according to both sides, seems to be a disconnect between women-run funds and their would-be investors. “You have to have great performance and numbers, but, beyond that, you also have to have a vital network of people who will vouch for you,” says Victoria Hart, who launched her New York-based hedge fund, Pinnacle View Capital Management, in 2013. “Starting your own fund is a colossal endeavor.... You have to pitch people, and they have to really know you or get a feel for you if they're going to give you money. There has to be that personal connection and trust.”

Last April, she founded Seven Degrees of Women in Finance, an invitation-only group for female fund managers to network. “One thing I noticed right away was a lot of us were too busy to meet or didn't really know each other, so this is a great way for us to connect, promote each other, share what we know and strengthen the community,” she says. The group, which meets every other month and invites guest speakers as well as potential investors, already has more than 200 members.

BY
**LEAH MCGRATH
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[@truth_eater](https://twitter.com/truth_eater)

“I don’t know too many other female chief investment officers, so Victoria’s group really fills a void,” says Dianne McKeever, who is planning to launch an equities activist fund, Ides Capital Management, later this year. “I attended the third or fourth meeting of hers, and it was packed. Networking is so important in this business—with men and women—because you need to meet people who can supplement your skills, introduce you to other people and give you advice.”

Says another female fund manager, who asked to not be identified because her fund doesn’t allow its managers to speak with the media, “When you see those packs of traders on Wall Street, they’re not usually women. But they socialize together, golf together and endorse each other. If one of them loses a job, they are going to do all they can to make sure that guy is OK. It is a really powerful network, and it is how portfolio managers get to launch their own funds.”

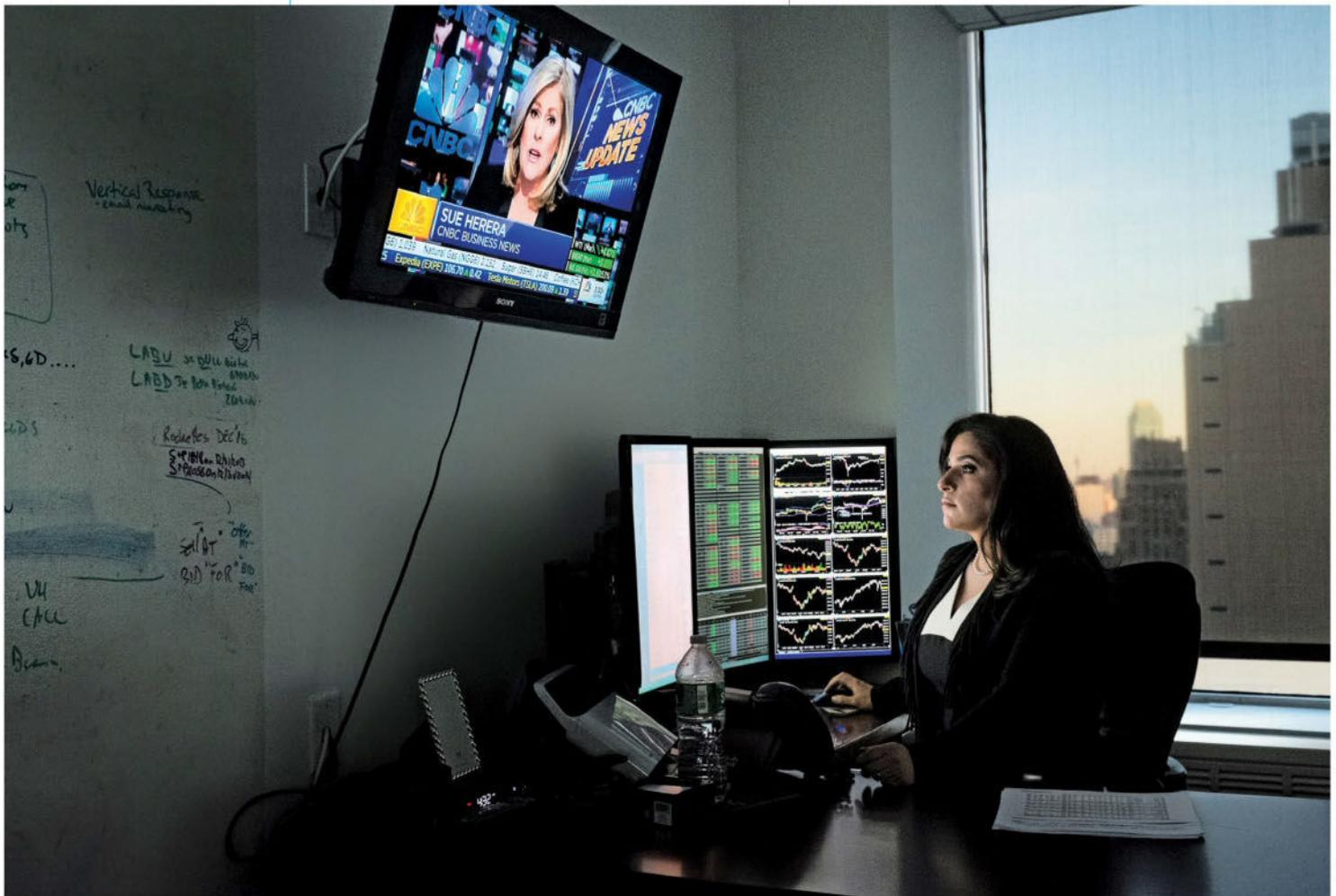
Hedge funds are not the only sector in finance

where women are a tiny minority. Less than one-third of venture capital firms in the U.S. employ even one woman who participates in business or investment decisions, and only 9 percent of mutual fund managers are women, according to a 2015 study from investment researcher Morningstar. There are plenty of women in back-office roles in finance, but few have the final say over where the money is invested.

WOMEN, OVER THE PAST DECADE, HAVE CONSISTENTLY OUTPERFORMED MEN WHEN IT COMES TO EARNING HIGHER RETURNS.

LOOKING UP: Victoria Hart, founder of Pinnacle View Capital Management, created a group called Seven Degrees of Women in Finance to help her peers network with each other.

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In the KPMG report, only 14 percent of executive women surveyed across the finance industry—which included venture capital companies and hedge funds—held the post of chief executive officer, and only 21 percent were in roles that let them manage money, with the vast majority of women relegated to marketing or compliance.

“It’s amazing that in the 21st century we’re still having this conversation,” says Meredith Jones, an alternative investments consultant in Nashville who in the 1990s authored some of the industry’s first research on women-run funds. In 2015, she published a book called *Women of the Street: Why Female Money Managers Generate Higher Returns (And How You Can Too)*. She says the latest data prove women’s investment performance isn’t to blame.

“People tend to invest in people who look like those who have already been successful in this profession—and most of those people are middle-aged white men,” Jones tells *Newsweek*. “Most people can’t even name a single female fund manager. People call me a reverse sexist, but actually I am a capitalist. I am all about the data. And by leaving women out, we are literally

leaving money on the table.”

Anyone who has spent time in finance knows a diverse pool of investments is one of the best long-term predictors of a portfolio’s success, but diversity remains one of the industry’s greatest challenges, Jones says. “This is going to shock you to the core,” she quips. “But men and women are different.”

Studies have consistently shown that female investors appear to have three common behavioral differentiators that set them apart from men. They experience fewer losses caused by to overconfidence and overtrading, they exhibit greater discipline in their investing decisions, and they focus more on protecting their investments from downside risk.

“I have been doing this for 15 years, and I can say that women bring a diversity of thought that can create an asymmetric profile that increases returns,” says Susan Webb, CEO and chief investment officer for Appomattox Advisory, a New York company that oversees \$1.6 billion in funds and allocates capital to women-run funds as well as minority-run funds—both of which are grossly underrepresented in the industry.

A MAN'S WORLD?
Wall Street remains a male-dominated realm, but since 2007, funds owned and run by women have returned an average of 59.43 percent, well above the industry average of 36.69 percent.



According to Appomattox's data, such funds lead the market average by around 200 to 300 basis points annually.

"This is not flavor of the month for us," Webb says. "We believe in it."

Even so, there are plenty of doubters. Hedge fund billionaire Paul Tudor Jones made headlines in 2013 for telling University of Virginia students during what was supposed to be an off-the-record panel discussion, "You will never see as many great women investors or traders as men—period, end of story."

Though female traders are just as capable as men, he said, motherhood inevitably causes women fund managers to lose their focus. "As soon as that baby's lips touch that girl's bosom, forget it," he said. "Every single investment idea...every desire to understand what is going to make this go up or go down is going to be overwhelmed by the most beautiful experience...which a man will never share."

Such myths help to preserve the gender gap by causing some women to believe they won't be supported if they attempt to launch a fund, and certain investors to think twice before investing in them—despite the obvious fact that parenthood affects both genders.

"It's a baby, not a lobotomy," says Svetlana Lee, chief investment officer and founder of Varna Capital Management, a \$25 million hedge fund (named for a city in her native Bulgaria) based in New York and launched in 2008. "I can take care of my young daughter and get great returns. In fact, I made investment decisions in the hospital right after she was born—and they were the correct decisions."

Notably, some of the biggest woman-run funds today are helmed by mothers. According to those who attended a talk given last year in New York by Leda Braga, head of Systemica Investments, a Geneva-based systemic hedge fund with \$9 billion under management, Braga cited motherhood as perfectly compatible with running a fund.

Arguably the world's top female trader by assets under management, Braga told her audience, "I am like any other person who's ambitious, who thinks I have a gift; I have a nanny, and I knew my kid would eventually walk. I was not going to be one of those parents who analyzed their kid at every juncture, or let it distract me from very serious responsibilities," one of the attendees tells *Newsweek*. A spokesman for Braga declined to comment, saying she preferred to speak about investing rather than gender issues or motherhood.

Other female traders echoed those sentiments, saying they did not want special treatment but



only to be considered alongside similarly successful funds.

"I don't think people care that much about my gender versus my track record and performance," says Jiyoung Kim, a South Korean who launched New York-based hedge fund Topni Pacific Century Fund in 2010, with a focus on Asian stocks. "For me, as a woman, I learned this business from men. It can be a very cutthroat and very male-dominated culture, but investing, as you have probably heard, is a craft that you work on for a lifetime. You learn from the best, and then you come up with your own version."

While family life may not distract women from reaping substantial returns, Hart says, it can keep them from expanding their all-important networks. "What I've noticed is that while women are very active in the early stages of their careers, when they hit their stride they don't feel

"IT'S A BABY, NOT A LOBOTOMY.... I CAN TAKE CARE OF MY YOUNG DAUGHTER AND GET GREAT RETURNS."

the same need to get out there and keep networking," she says. "They may focus on maintaining their careers and their families—and that's where I think the gender difference comes alive. Women may not necessarily be thinking about their future or further building their networks." This can lead to lost opportunities later.

"Relationships matter," agrees Lee. "We don't have as much time to network; we don't have time to play golf, to have a boys' evening—we go home to our children. It's a fiercely competitive industry, but the number of women running funds should be more than 2 percent, and it can be more than 2 percent and it will be more than 2 percent. Hopefully, more women of the next generation will follow." **N**

A man with dark hair, wearing a blue button-down shirt, is smiling and looking upwards and to the right. He is holding a large black umbrella. The background shows green foliage and another person holding a similar umbrella. The overall scene suggests a sunny day with rain or a recent shower.

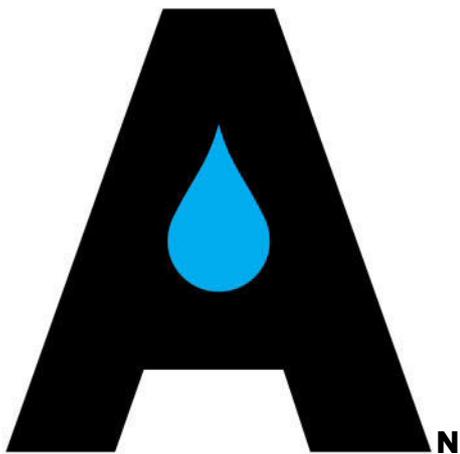
FLOOD? WHAT

CLIMATE CHANGE IS DROWNING SOUTH FLORIDA.
SO WHERE'S **MARCO RUBIO**?

BY NINA BURLEIGH



FLOOD?



UNUSUAL JANUARY STORM BENT PALM TREES AND TURNED CITY SIDEWALKS INTO CREEKS AS A SMALL GROUP OF MIAMI-AREA MAYORS AND ADMINISTRATORS HUDDLED IN PINECREST, ONE OF MIAMI-DADE COUNTY'S 34 MUNICIPALITIES. THEY HAD COME AT THE

invitation of Pinecrest's mayor to discuss rising sea levels, long predicted by climate change scientists and now regularly inundating their towns. The mood in the room was somewhere between pessimism and panic.

On the agenda: making prediction maps to prioritize which roads, schools and hospitals to save as waters rise; how to keep saltwater from leaching into the aquifer; and what to do about 1.6 million septic tanks whose failure could create a Third World sanitation challenge. Someone also brought up the possibility of the sea engulfing the nearby Turkey Point nuclear power plant.

The scale of South Florida's looming catastrophe—\$69 billion worth of property is at risk of flooding in less than 15 years—is playing out like a big-budget disaster movie, but dealing with it has been largely left to local political and business leaders in tiny rooms like the Pinecrest Municipal Center's Council Chamber. Their biggest problem is the one climate scientists have struggled with for decades: creating a sense of urgency. Before adjourning, the mayors considered finding a mascot to get people's attention, like a climate change Smokey Bear or Woodsy Owl of the "Give a hoot, don't pollute" campaign. Coral Gables Mayor Jim Cason suggested a WWE wrestler could be hired for television and billboard ads with the slogan "Climate change: The problem is bigger than you think."

The irony—that Miami's local leaders still have to sell the urgency of rising sea levels—was sharpened as the meeting adjourned and participants exited into a veil of rain during what is supposed to be Florida's dry season. Small ponds formed in streets, another pretty average day in a city where reports of fish swimming in flooded boulevards and backyards during storms and high tides are becoming more common. Almost everyone knows someone who has stalled a car in rising waters, and Miami police now urge drivers to carry special window-busting hammers for such incidents.

About 2.4 million people in the Miami area live less than 4 feet above the high-tide line, and the ocean is expected to rise between 6.6 and 30 feet by 2100. Eighty-four years is a long time, but water doesn't rise like that all at once. It is already happening. Inch by inch, the slow inundation of Miami has begun, affecting infrastructure and life in one of the world's sexiest cities.

South Florida business leaders and even many local Republican politicians are no longer in climate change denial. Now, in the fine print of resolutions



and memoranda being passed around among the various task forces in the area, one sees the mantra "Elevate. Isolate. Relocate." Abandonment of some parts of the community to water is now accepted as unavoidable. Even the most conservative estimates assume that a percentage of the next generation of Floridians will become internally displaced Americans, climate change refugees.



FLOUNDERING: Some Florida neighborhoods regularly get flooded streets during rainstorms; some even have large fish thriving in ponds that were once lawns.

While panicking Miami policymakers are contemplating dire climate-related matters like the possibility of relocating people and infrastructure, Florida's two presidential candidates are silent. Sena-

tor Marco Rubio and former Governor Jeb Bush have ignored the problem. Bush has no constituents to answer to anymore, but Rubio does. On the campaign trail, he brushes off questions about climate change by saying, "I'm not a scientist." His silence is a stark contrast to the deeds of Florida's senior senator, Bill Nelson, a Democrat and former astronaut. Last year, Nelson held a rare Senate field hearing in Miami Beach on sea level rise, and he frequently speaks about the issue on the Senate floor.

Miami-area Democrats are predictably harsh regarding Rubio's indifference, using words like "useless," and "a waste of time." But even local Republicans are tired of pretending they don't need waders to get across town. Antonio Argiz, chairman and CEO of an accounting company and past chair of the Greater Miami Chamber of Commerce, lives near the Coral Gables waterfront. He now leaves his sedan parked on high ground during rainstorms and texts his wife to pick him up at the end of their street in the family SUV, rather than risk stalling out in rapidly rising waters. "I think saying 'I'm not a scientist' is the wrong position," Argiz says. "Climate change will destroy our economy, sooner or later. I think like everything in life, you face things head-on and try to come up with solutions, and you don't wait until the last minute.... [If] this thing continues as it has in the last six or seven years, we are going to have a major problem 15 to 20 years down the road."

Rubio's local political mentor, County Commissioner Rebeca Sosa, has chaired a climate task force since 2013 and sponsored more than a dozen proposals, including sewer improvements and the public purchase of endangered coastline. She excuses Rubio's silence as caution. "He's not a scientist, [not] able to say what is causing it.... [W]e need to be careful. The extremists can create an economic blockade by making people think they shouldn't invest in the United States because we will be underwater."

Rubio lives in West Miami, 9 feet above sea level and a few miles inland. When I visited his neighborhood during that January storm, a shallow pond had formed in the middle of his street and the sidewalk was underwater. As the water table rises, groundwater bubbles up through storm drains. As that

happens more often, it will cause more than a million septic tanks in the area to bust, and if precautions are not taken soon, that will contaminate the groundwater. At that point, the city will be, literally, in the shit.

ONE REGULARLY SEES THE MANTRA "ELEVATE. ISOLATE. RELOCATE."

Rubio did not always avoid the subject. As a Florida legislator, he said climate change gave the state an opportunity to become a green energy leader. "This nation, and

ultimately the world, is headed for an emissions tax and energy diversification," he said in 2007. "Those changes will require technological advances that make those measures cost-effective. The demand for such advances will create an industry to meet it. Florida should become the Silicon Valley of that industry." On the campaign trail, he rarely talks about green energy.

When he ran for the U.S. Senate in 2010, Rubio was a favorite of the Tea Party, with its "Drill, baby, drill!" libertarianism and science denial. He stopped talking about green energy and began openly questioning climate science. On ABC's *This Week* this past May, he said, "I do not believe that human activity is causing these dramatic changes to our climate the way these scientists are portraying it, and I do not believe that the laws that they propose we pass will do anything about it, except it will destroy our economy."

In the only Republican presidential debate in which a moderator asked about climate change, Rubio said, "We're not going to make America a harder place to create jobs in order to pursue policies that will do absolutely nothing,

JOE RAEDLE/GETTY (2); PREVIOUS SPREAD: DANIEL ACKER/BLOOMBERG/GETTY

nothing to change our climate,” Rubio said. “We’re not going to destroy our economy the way our left-wing government wants us to do.”

As a U.S. senator, Rubio signed the “no climate tax” pledge circulated by anti-tax lobbyists, promising to not support a tax on carbon. He has said he would roll back Obama’s Clean Air Act actions, and he supports more offshore drilling and the Keystone XL pipeline. This month, Rubio got the endorsement of Oklahoma Senator James Inhofe, chair of the Senate Environment and Public Works Committee—a legislative body that would, theoretically, hold hearings on what to do about an American city being flooded by rising seas. But Inhofe is a climate science denier who once illustrated his belief that Earth isn’t warming by tossing a snowball on the Senate floor. Inhofe tells *Newsweek* he still maintains that “the weather is always changing” and that carbon emissions have minimal effects on it.

Rubio’s silence on Florida’s problem is at odds with his constituents’ wishes. A June 2015 poll of Florida’s 27th Congressional District—including Miami, where Rubio lives—found 81 percent of respondents believed climate change is a problem Congress should address, and 82 percent wanted Congress to support economical ways to mitigate the problem.

The bulk of the responsibility—and the panic—has fallen on local governments in and around Miami. They have created local and regional task forces. One of the largest is the Southeast Florida Regional Climate Change Compact, a joint commitment of four counties to foster “climate resilience”; it has developed a legislative and policy agenda for state and federal advocacy. The Miami-Dade County Sea Level Rise Task Force, formed in 2013, has already recommended that government begin buying lands predicted to go underwater.

The smaller municipalities are also racing the clock. Coral Gables’s Mayor Cason put money into his city budget for experts in engineering and climate change, and commissioned a sea level rise map predicting, in 7-inch increments, which roads and buildings are most vulnerable. Miami Beach Mayor Philip Levine hiked the local storm drain tax to pay for \$100 million worth of pumps to empty flooded streets during high tides and to make alterations in the city drainage system. He plans to spend another \$300 million on pumps. South Miami Mayor Philip Stoddard commissioned a vulnerabilities study. “People don’t get it yet,” he says. “It’s one of those things that is creeping up on us. First thing is, the septic tanks will be compromised. The day that happens, the day you flush your toilet and poo is in your bathtub, that’s when people will move into hotels.”

Absent in this flurry of activity, both in body and in spirit, is Florida’s junior senator, which makes local leaders frustrated and furious. “We are working in isolation,” says Pinecrest Mayor Cindy Lerner. “We are the first responders. We have to plan for and protect our citizens. You can’t wait for the cavalry to come in. We are it. Rubio is useless. He’s a denier.”

Miami Beach’s Levine says, “Marco Rubio is a defeatist. He has not helped us. He is a waste of time to us.” South Miami’s Stoddard accuses Rubio of answering to fossil fuel interests, not his home constituency. “He has given no acknowledgment that climate change is wrecking the economy. He is supporting the coal industry at the expense of the environment and the future.”

Rubio’s campaign office did not respond to emailed questions and phone calls to its offices about his positions on climate change science and solutions to Miami’s sea level problem, nor did his



+ **THE COAST IS CLEARED:** Experts estimate \$69 billion in South Florida real estate could be flooded by 2030.

Senate office, save for emailing *Newsweek* a transcript of his answer to the single climate change question asked at the Republican debates and a 2007 op-ed he wrote for *The Miami Herald*. That piece criticized carbon caps as bad for the economy and supported ethanol and tax incentives for energy efficiency.

Last October, Citizens’ Climate Lobby delivered a letter to Florida’s congressional delegation and two senators, signed by 55 local mayors and business leaders, that stated, “We believe it is time for Congress to acknowledge what we in South Florida already know: that the escalating costs of sea level rise and other climate

impacts now pose a serious threat to the economic stability and future habitability of South Florida. We urge you to represent our interests and concerns in this matter.” Rubio never responded.

According to the Center for Responsive Politics, which tallied up Federal Election Commission filings and donations from all sources, the top campaign donor to Rubio and political action committees allied with him from 2009 to 2016 was the anti-climate-science Club for Growth. If he becomes the Republican presidential nominee, he also stands to benefit from the campaign largesse of the anti-climate-science Koch brothers, who have promised to lavish \$1 billion on the general election. At a donor conference the Kochs hosted in January 2015 at the Ritz-Carlton in Rancho Mirage, California, Rubio was among five Republican candidates under consideration, and he won an informal straw poll.

Deep-pocketed fossil fuel donors might not be the only reason Rubio’s ignoring the fish in Miami’s streets. Climate science denial is common among Florida Republicans, so he is in sync with many in his party. Governor Rick Scott has even banned climate change and global warming from public discourse by state employees and contractors.

Local leaders, including some mayors, county commissioners and businessmen, worry that “alarmist” climate planning—for example, task force reports that predict things like relocation—could scare off developers, banks and insurers. Without an income tax, the state of Florida and the Miami area rely on real estate taxes and tourism to survive. Miami real estate is booming, fueled in part by South Americans parking their capital in the safety of El Norte, many investing in the dozens of high-rise buildings going up along the coast without any consideration of sea level rise. Local lawmakers haven’t written any codes yet. Meanwhile, business leaders fear 30-year mortgages could go the way of the dodo bird in Miami, and experts predict property and flood insurance will get too expensive or even become unavailable.

Miami real estate attorney Wayne Pathman is the incoming chair of the Miami Beach Chamber of Commerce. At an interview in his office overlooking

Biscayne Bay, he says banks have not yet jettisoned the 30-year mortgage, but “it’s out there,” and he expects them to “start looking at how they give mortgages and protect their collateral” as sea levels rise.

Pathman’s first order of business as the chamber’s chair will be to introduce developers to climate scientists at seminars this spring. He is bipartisan, joking that framed pictures of him with Clintons and Obamas in his office can be quickly replaced with some of Bush and other Republicans if necessary. He says his goal is to spur political action by informing the men who write the checks to politicians. “Maybe today you can argue what Rubio is arguing now,

but not 10 years from now, when you see a slowdown of the local economy and people saying, ‘My house used to get flooded four days a year. Now it’s 26 days a year,’” Pathman says.

Amid the growing panic, there is also a sense that South Florida could become a leader in finding solutions—as Rubio once suggested. A freshman Republican from suburban Miami, Representative Carlos

Curbelo, has taken a leadership role on Capitol Hill on climate change. He even wrote an op-ed for *The Miami Herald* headlined “Climate Change Cannot Be a Partisan Issue.” He was the first House Republican co-sponsor of a resolution last year acknowledging that climate change is a problem that needs to be addressed. Representative Ileana Ros-Lehtinen, another Miami Republican, also signed on.

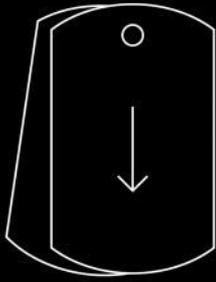
But it’s a long and uncertain road from a House resolution to the billions Miami needs to deal with what’s ahead. Longtime Miami-Dade County Clerk of Courts Harvey Ruvin, a Democrat in a nonpartisan post and a local Cassandra on climate change for more than 20 years, has proposed that the federal government create a kind of Superfund site for natural catastrophes like Miami sea level rise. Other climate change task forces in the area have suggested smaller federal efforts, including tax incentives and mortgage payment abatement periods to help property owners upgrade their septic systems. So far, none of those ideas have been taken up in Washington.

With nobody at the wheel in Washington or Tallahassee, Miami’s community leaders are appealing to the private sector for rescue funds. Miami-Dade County recently applied for a grant from the Rockefeller Foundation. The mayors who came to Pinecrest discussed applying for aid from rich guys Bill Gates, Mike Bloomberg and Richard Branson. The Miami Beach Chamber of Commerce’s Pathman and municipal mayors insist human ingenuity and technology can save their city, if action starts now. But by 2030, \$69 billion in coastal property in Florida will flood at high tide, according to “Risky Business: The Economic Risks of Climate Change in the United States,” a 2014 study bankrolled by Bloomberg, former Treasury Secretary Hank Paulson and wealthy California environmentalist Tom Steyer.

While the Greater Miami area’s mayors cast around for a big mascot to lead the community on climate change—maybe someone like a pro wrestler—their junior senator has been a no-show, and was so even before primary politics took him away from home and the Senate. Area civic leaders, facing the greatest threat in history to the future of their community, if not their state—rising sea levels—are asking, Where’s Marco?

“This is an issue for people in our party that takes some courage and some coming to terms with, because for so many years it’s been expected that Republicans disregard these concerns,” Curbelo says. “But members are getting there. A few have even come to me with suggestions. More Republicans are coming around to our side. Unfortunately, time is not.” ■

“CLIMATE CHANGE WILL DESTROY OUR ECONOMY, SOONER OR LATER.”



CAN'T KEEP IT IN

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IS WHY THE ARMY
DOESN'T WANT
YOU TO KNOW

BY
MICHAEL
AMES





EVERY WEST POINT GRADUATE KNOWS WARS ARE WON NOT WITH BOMBS BUT WITH INFORMATION. CONTROL THE FACTS, AND YOU CONTROL THE BATTLEFIELD.

Just days after U.S. Army Private First Class Bowe Bergdahl went missing from his base in Afghanistan in 2009, the men in his platoon were ordered to sign papers vowing to never discuss what he did or their efforts to track him down. Many of those men were already exhausted, searching endlessly in the hot dust and misery of the Afghan desert for a guy they knew had chosen to walk away. More than six months later, long after Army officials learned Bergdahl's captors had smuggled him into Pakistan, commanders still had a sweeping gag order on thousands of troops in the battlefield. Some were told they could not fly home until they signed the nondisclosure agreements.

And even now, six years later, as America's most notorious prisoner of war faces an August court-martial that could put him in prison for the rest of his life, the Army is still hiding the truth, refusing to let the public see critical documents in the case.

The Pentagon finished its formal investigation, known as an Army Regulation 15-6, more than a year ago. That report, led by a two-star general and a team

of 22 investigators, includes interviews with roughly 57 people, including Bergdahl. In 371 pages of sworn testimony, he told General Kenneth Dahl what he did, why he did it and what he endured during his five years as a hostage of the militant Haqqani network. The 15-6 is not classified, and at a September preliminary hearing on the case, Dahl testified that he does not oppose its release. But the Army won't budge.

A consortium of news and media companies, including the Associated Press, *The New York Times*, *The Washington Post*, Bloomberg, Dow Jones (owner of *The Wall Street Journal*), NBC News and Reuters, have taken the issue to the military courts, citing their First Amendment right to access unclassified and unsealed evidence from the hearing. In late November, the Army turned them all down, without explanation.

In the absence of facts, ignorance and bloodlust reign. At Donald Trump rallies, crowds roar when the leading Republican presidential candidate calls Bergdahl a "dirty rotten traitor" who should be shot to death. To hoots and hollers, the taunting tycoon pretends to pull the trigger himself. Or he says Bergdahl should be flown back to Afghanistan and pushed out of a helicopter, sans parachute. On social media, a vast chorus of patriots and partisans agree: The longest-held American POW since Vietnam deserves no mercy. And the U.S. Army apparently agrees.

Despite the Army's relentless campaign to hide the facts about Bergdahl's disappearance and five years in captivity, the truth has slipped from its grasp. It's out there. You don't need to read Army Regulation 15-6 to know what Bergdahl did and why. The mystery is why the military, ignoring the findings of its own investigation, as well as the unspeakable torture Bergdahl endured as a hostage, seems determined to crucify him.

+ SWEAT EQUITY: When negotiations for Bergdahl's release intensified, his captors started feeding him extra protein to fatten him up and had him exercise on a collapsible treadmill.



VOICE OF JIHAD WEBSITE/AP (2); PREVIOUS SPREAD: REUTERS TV/REUTERS



THE FIRST CUT IS THE DEEPEST

MOTIVE WAS always the confounding question at the heart of the case, but Fox News claimed it had the answer when it aired a stunning report in early spring 2015. “There is clear evidence,” said former Army intelligence officer Tony Shaffer, “that [Bergdahl] was going over to the other side.” Both Shaffer and Fox News intelligence reporter Catherine Hertridge cited senior government sources with access to a 2009 report by the Naval Criminal Investigative Service (NCIS). Bergdahl, Shaffer declared, “was actually trying to offer himself up to the Taliban.”

This was big news, and the cable network juggernaut touted its scoop on its most popular shows. “The NCIS report stated that Sergeant Bergdahl collaborated with some Afghans to desert his unit, possibly to aid the enemy,” Bill O’Reilly told his audience of more than 3 million on April 7, 2015. The story was picked up by the *New York Post*, as well as dozens of newspapers and blogs, and took root in social media, tarring Bergdahl as a traitor.

+ **TRADE SHOW:** As Bergdahl was being loaded onto a U.S. chopper, near the border of Afghanistan and Pakistan, five Taliban detainees were freed from the Guantánamo prison and flown to Qatar.

But there is a serious problem with that report: It doesn’t exist. Shortly after the Fox story aired, the NCIS told *Newsweek* that no one at Fox had called to confirm what the report said or even to verify that it existed. “There are no records of NCIS conducting an investigation of the type being reported,” said Ed Buice, NCIS public affairs officer. “There is no NCIS report.”

No matter—in the court of public opinion, Bergdahl never had a chance. In the absence of any plausible explanation for his disappearance, rumors swirled right from the start. Men from Blackfoot Company grumbled that Bergdahl liked to spend a bit too much time with the Afghans. He didn’t drink. He didn’t hang out. The soldiers didn’t question their duty to rescue him, but they weren’t happy about risking their lives to save this misfit.

Desperate to track him down, the Army solicited tips from Afghan sources. Soldiers



“THERE IS CLEAR EVIDENCE [BERGDAHL] WAS GOING OVER TO THE OTHER SIDE.”



NEW CHAINS: Many thought Bergdahl would receive a dishonorable discharge after the September hearing. Instead, the Army announced he would face a court-martial and a possible life sentence.

traveled to impoverished villages, offering anywhere from \$100 to \$1,000 for tips. When the reward for quality information climbed to \$25,000, Army intelligence was soon swamped with reports, most of it false leads and Taliban propaganda. The stories ranged from mundane (he was captured while drunk) to treasonous (he was teaching the enemy bomb tactics) to silly (he had taken several Afghan wives and was living in a lavish hilltop villa). “We were chasing rumors,” a former senior Defense Department official tells *Newsweek*. “There was a great deal of wild speculation but no reliable reports that indicated that he was a traitor.”

But shady intelligence was better than none; rescue teams were told Bergdahl might not leave his captors

peacefully and were instructed to use auto-injectors of Valium to quell him. One Navy special operations forces team dubbed their rescue mission Objective Cat Stevens, a snide reference to the British pop star who converted to Islam, changed his name to Yusuf Islam and sold all his guitars.

BOY WITH A MOON AND STAR ON HIS HEAD

WHEN SOLDIERS desert their posts in war, they typically run from the fight, toward safety. Bergdahl did the opposite, walking directly into his own kidnapping. Over the course of his 1,797 days in blindfolds and chains, he was starved, beaten and under the constant threat of execution. For more than three years, he lived in a 6-by-6-foot steel cage with no running water, no toilet paper and severe chronic diarrhea.

Several months prior to his release, as secret peace



FROM LEFT: SARA H. DAVIS; CHIP SOMODEVILLA/GETTY

negotiations with American officials finally progressed, his captors tried to improve his appearance. They fattened him up—fed him extra protein and exercised him on a collapsible treadmill. And then, on the morning of May 31, 2014, they dressed him in a white *shalwar kameez*, drove him to the Afghanistan-Pakistan border in a Nissan pickup and handed him over to a group of clandestine American agents.

About 8,000 miles to the west, five Taliban detainees walked out of the Guantánamo Bay military prison and were flown to Qatar on an American cargo plane. The Taliban taped all of this, from Bergdahl staggering to the Black Hawk to the Taliban's sun-drenched group hugging in Qatar, making the entire episode the most documented prisoner swap in American history.

Bergdahl was quickly taken from Afghanistan to Germany and the Air Force's Landstuhl Regional Medical

RESCUE TEAMS WERE TOLD BERGDAHL MIGHT NOT LEAVE HIS CAPTORS PEACEFULLY AND WERE INSTRUCTED TO USE AUTO-INJECTORS OF VALIUM TO QUELL HIM.

Center, where he received medical care and was questioned. He asked if he could have some peanut butter. He was then transferred to Fort Sam Houston in San Antonio, where hostage experts, survival psychologists, FBI agents and intelligence officers interrogated him further. He had been promoted twice in captivity, to sergeant, but he rejected the rank and asked others to address him as private first class.

About a week after Bergdahl was released, the Army put out a request for candidates to lead the investigation into his case. To his dismay, Dahl realized he was



+ COLLATERAL DAMAGE CONTROL: Some claim soldiers died trying to rescue Bergdahl, but former Defense Secretary Chuck Hagel said in 2014 that he didn't know of a single casualty related to those missions.

on the short list. "There were probably about three of us, so I began to advocate for the other two, but I failed," he said with a wry smile on the witness stand during the September preliminary hearing. He flew to Washington, D.C., for his orders, but when his superiors invited him to do the two-month job from an office inside the Pentagon, he declined. "I thought it would be better to go back," said Dahl, who was based in Tacoma,

Washington, and “separate ourselves from the noise.”

He flew west, about as far as he could get from politics and the media, and recruited a team—an infantry platoon leader, nine officers, 10 enlisted men, an intelligence analyst, a psychologist, a psychiatrist and a few financial experts. Over the next 59 days, his team interviewed 57 people, including members of 2nd Platoon, Blackfoot Company and Bergdahl’s family.

Dahl was called to the preliminary trial at Fort Sam Houston as a defense witness, but he did not defend Bergdahl’s actions. He did, however, discuss the findings of his 15-6 report, which helps explain the seemingly inexplicable—how a maladjusted young soldier made a colossally bad decision born not of treason or malevolence but of tragic and remarkably naïve idealism. He described a 23-year-old with the delusional and sometimes grandiose perspective of a sheltered adolescent. “A lot of people are home-schooled and don’t have social interaction challenges,” Dahl said, but Bergdahl’s unique upbringing, 8 miles along a dirt-road canyon, “on the edge of the grid, denied him, frankly, some normal social development opportunities.”

He testified that Bergdahl joined the Coast Guard in 2006, “looking for some adventure,” and that he was

the service under lowered standards. The Army issued Bergdahl a waiver, as it did for thousands of men with felony records. He joined the Airborne Infantry and sailed through basic training at Fort Benning, Georgia. But as the months progressed, so did his confusion.

He joined a platoon that had finished a tour in Iraq. At Fort Richardson, Alaska, a command sergeant major

BERGDAHL WASHED OUT OF COAST GUARD BASIC TRAINING WITH A MENTAL BREAKDOWN.

visited the men to explain how the war in Afghanistan would be different, a slower “assist-and-enable” and “hearts-and-minds” mission than what they had seen in Iraq. To make his point clear, the sergeant major spoke in a style he thought the younger men would understand. Dahl paraphrased that pep talk: “Look, heroes, I know you all joined the Army to rape, kill, pillage, plunder and do all that kind of stuff. So did I. And Iraq was that way, but that is not what we are doing here. We are going over to assist the Afghans.”

Bergdahl was dumbstruck, said Dahl. He took the remarks quite literally, thinking to himself, My sergeant major joined the Army to be a rapist, to be a murderer!

What Bergdahl lacked in social aptitude, he tried to replace with immersive reading. After graduating from his parents’ rigorous home-school lessons in Christian ethics, he lost himself in ancient Asian philosophy and the warrior codes of feudal Japan. “I did not know much about the Bushido warrior code until I heard that Sergeant Bergdahl was interested in it,” Dahl said with an amused smile. That code prescribes a life of study, honor and austerity. For this idealistic loner, it was no passing fad. “He attended quite a bit to those things,” said Dahl.

When Bergdahl was shipped out to Afghanistan, he carried small notebooks with him and, in his downtime, filled them with meticulous, handwritten stories. According to Josh Cornelison, the field medic in Bergdahl’s platoon who found one of the books after he left, he wrote about “a hero against the world, and Bowe Bergdahl was that hero.”

Dahl testified that Bergdahl “was very motivated to deploy” and wanted to do big things in Afghanistan, including missions that might have been assigned to a Navy SEAL team, but that he had no realistic hope of doing. He was frustrated that he wasn’t kicking in doors and doing hand-to-hand combat with the enemy. “There were folks doing those kinds of things, but it wasn’t a PFC in a light infantry platoon,” explained Dahl.



+ BIG SHOT: Fueled by Fox News coverage, a large portion of the public believes Bergdahl is a traitor. Trump gets roars at his rallies when he says Bergdahl should be shot and offers to pull the trigger himself.

“interested in saving lives.” He lasted just three weeks. “He became overwhelmed and then found himself in the hospital,” Dahl said. “He wasn’t ready for it.”

The Coast Guard categorized it an “entry-level separation” and diagnosed him with “adjustment disorder with depression.”

In 2008, with the war in Iraq pressuring military recruiters, 20 percent of U.S. enlistees that year entered



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NO SECRETS: The Defense Department's top debriefer refuted the rumors that Bergdahl colluded with the enemy, saying, "He didn't give up any information. He didn't have any information to give."

This portrait of Bergdahl—awkward, childlike, guileless in his Tom Sawyer schemes—is less dramatic than the plotting traitor cable news portrays, but it's close to the descriptions provided by those in the Army who knew him best. "My gut tells me he grossly underestimated what he was doing," another 2nd Platoon soldier tells *Newsweek*. "I don't think he was a traitor. I don't think he intentionally sought out the Taliban. I think he left and [then] said, 'Oh shit, I made a monumental, horrible decision.'"

MORNING HAS BROKEN

THE ARTICLE 32 preliminary hearing in San Antonio in September was Bergdahl's first public opportunity to explain why he made that horrible decision. He explained to his interrogators that his plan was to hike about 18 miles to a nearby base, thereby triggering a missing soldier alert. After what he imagined would be his triumphant reappearance, he hoped to earn a private meeting with a general who would listen to his concerns

about dire leadership and safety issues in his unit.

That story suggests he was delusional, but it is not a guilty plea to the charges he faces under the Uniform Code of Military Justice—one count Article 85, "desertion with intent to shirk important or hazardous duty," and one count Article 99, "misbehavior before the enemy by endangering the safety of a command unit or place." But it's close.

"The accused acted with deliberate disregard for the consequences of his actions," Army prosecutor Major Margaret Kurz said in her opening statement. "The facts themselves are straightforward, and they are undisputed."

The defense offered three main arguments in response:

Argument one: Bergdahl is guilty of going AWOL, during which time (about eight to 10 hours) he was kidnapped. His decision to leave his base was not realistic, necessary or wise, but he did not intend to leave permanently and is therefore not guilty of desertion.

Argument two: The Army shares the blame for this tragedy. In 2006, Bergdahl washed out of Coast Guard basic training with a mental breakdown. In 2008, the Army issued him a waiver and deployed him to one of

the world's most dangerous war zones. This, despite the fact that an Army psychiatry board determined that at the time of his deployment he suffered from "a severe mental disease or defect." In Afghanistan, his superiors ignored a concerned report about Bergdahl's mental state from a sergeant in his platoon.

Argument three: The many years he spent in brutal captivity should be a mitigating factor. The grim details of that ordeal, as well as his good conduct in the face of such adversity, make a prison sentence both redundant and inhumane.

ON THE ROAD TO FIND OUT

BERGDAHL ENTERED that San Antonio hearing room in full Army dress—ribbons on his chest and patches on his sleeves. On his right shoulder, he wore the braided blue cord of the infantry, and his upper arms showed the sergeant stripes the Army issued during his captivity. He sat upright, as if at attention, and for two days his face was gripped by what looked like constant pain.

One of his most grievous sins, in the eyes of many, was putting the lives of fellow soldiers at risk. To prove the endangerment charge, Army prosecutors called three infantry officers to describe the fallout after he left. Captain John Billings (then a second lieutenant), who was the ranking officer at Observation Post Mest in Afghanistan that morning, initially thought it was all a prank. "As a young lieutenant platoon leader, you expect the guys to...mess with you," he said on the witness stand. He told his men to scour the base. "Go search the latrines. Check all the vehicles." When they came back empty, Billings said, "I was in shock—absolute, utter disbelief that I couldn't find one of my own men."

The routines of the war they had been waging—keeping the outpost in order, engaging the local population, preparing for the Afghan national elections on August 20—were instantly shattered. Relative calm was replaced by what Billings called "franticness," a virus of chaos that spread from 2nd Platoon to Blackfoot Company at large, Geronimo Battalion, 4th Brigade and eventually to all of the conventional forces and special operations forces in the region.

According to another former Pentagon official who was not authorized to discuss the case, the crisis altered strategies at the highest levels of the International Security Assistance Force in NATO-administered Afghanistan. Michael Waltz was a Special Forces major who took leadership over a team of Green Berets that day. "We unequivocally—all of my sources, all embedded forces, all trainers—stop what we are doing, pivot and devote every asset we had to this search," he says.

After Billings reported his soldier DUSTWUN (duty status whereabouts unknown) to his chain of command,



BLACKFOOT PATROLS: The ranking officer at Bergdahl's base assumed his disappearance was a prank, but when he realized it wasn't, the platoon was gripped by what he calls a "franticness" as they searched for him.

he organized a hasty nine-man foot patrol. His rush that morning, along with the increased danger it brought, is the heart of the Army's case for misbehavior.

"Did taking out that unplanned nine-man foot patrol decrease your ability to defend Observation Post Mest?" Kurz asked.

"It absolutely did," Billings replied.

But some veterans and their families want Bergdahl held accountable for more than just rushed foot patrols. Three chairs in that San Antonio courtroom were reserved for the wife and parents of Second Lieutenant Darryn Andrews, who they say was killed on a search mission in September 2009.

The Pentagon has made exactly one statement on the issue, when former Defense Secretary Chuck Hagel said in June 2014, "I don't know of specific circumstances or details of U.S. soldiers dying as a result



area,” the former senior Defense Department official says. “Everyone knew it was going on.”

A former officer who served in the region at the time says the searches were a versatile tactic. “It was a good excuse,” because missions that included “personnel recovery” were granted greater assets and quicker approval for raids on Afghan villages and homes, he says. Some officers “were using that code to request assets

BERGDAHL WAS DUMBSTRUCK. HE THOUGHT, MY SERGEANT MAJOR JOINED THE ARMY TO BE A RAPIST, TO BE A MURDERER!

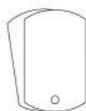
months after the fact.... ‘Bergdahl’ became a language tactic to get assets.”

But regardless of these subterfuges, the former officer’s sympathy lies not with Bergdahl but with the men sent to find him. “All of the Navy SEALs, the leaders of Blackfoot Company, they all knew that Bergdahl was a shithead, but they still attacked every mission with absolute dedication. They risked their lives multiple times to go after and rescue someone they hated more than the enemy.”

of efforts to find and rescue Sergeant Bergdahl.”

The Pentagon’s inconvenient problem here is that the Army has never explained why Andrews, or any infantry platoon, was searching for Bergdahl nearly two months after officials believed his captors had moved him to Pakistan. As *Newsweek* reported in April, elite Army units were waved off the search within a week of his disappearance, and military sources told ABC News on July 20 that Bergdahl was in Pakistan. Pentagon public affairs insisted he wasn’t, and in an interview that day in New Delhi, India, then-Secretary of State Hillary Clinton dodged the question.

It all leads to the troubling question: Why search for Bergdahl in Afghanistan when solid intelligence placed him in another country? Several military sources—enlisted men and officers—tell *Newsweek* the Army used the Bergdahl crisis to gain a strategic advantage in the war. “It was common knowledge that commanders in the field used searching for Bergdahl as a justification for more aggressive tactics to achieve stability in the



WILD WORLD

THE DEFENSE in San Antonio called Terrence Russell to talk about what had been the case’s least discussed chapter—Bergdahl’s 1,797 days as a POW. Russell is an Air Force veteran and, as the head of the Pentagon’s Joint Personnel Recovery Agency, was the Defense Department’s lead debriefer.

He has managed 125 such cases, including those of Jessica Lynch (captured in Iraq in 2003), Mike Durant (captured in Mogadishu in 1993) and Bobby Hall (captured in North Korea in 1994). In his career, Russell said, he has met just one or two former hostages he did not believe were being honest with him. Bergdahl was not one of them. “The intelligence debriefers, the SERE [Survival, Evasion, Resistance and Escape] psychologists, the FBI agents, the other debriefers, everybody remarked on the quality of information that Sergeant Bergdahl was providing,” Russell said in San Antonio. He added that Bergdahl rigorously catalogued his memories of captivity because “he knew that he would

be an important source of information for the intelligence community and for special operations forces.”

No one will say whether the military applied that information, but there are some clues. In the five months prior to Bergdahl’s release, the CIA drones over Waziristan in northwestern Pakistan suspended their strikes. Ten days after he was recovered, the agency opened a sustained campaign in the tribal territories, where Bergdahl had been held. On June 12, drone-launched missiles in North Waziristan killed Haji Gul, a Haqqani commander, and at least six associated Haqqani militants. In the two months that followed, at least six more strikes took out compounds, vehicles and dozens of suspected militants.

But for those who call him a traitor, there is a more pressing question: What did he tell his captors? Before Russell met America’s most notorious POW, he’d heard the rumors trumpeted on television news that Bergdahl had colluded with the enemy. On the stand, Russell had a simple, blunt rebuttal: “I would be shocked if Sergeant Bergdahl had any classified information that he would have been privy to anyways.” As the former officer tells *Newsweek*, “He didn’t give up any information. He didn’t have any information to give.”

In San Antonio, Russell also talked at length about the degradation Bergdahl suffered at the hands of militants who “held the U.S. soldier in absolute contempt.” He reported that Bergdahl was beaten with rubber hoses and copper cables. After Bergdahl’s first escape attempt, guards tied his hands and feet to a bed frame, spread-eagled, and aside from one or two daily bathroom breaks, he was “left in that position for three months,” Russell said, “purposefully to atrophy his muscles. They were not going to risk him escaping again.”

Each time his captors moved him to a new location, Bergdahl tried to escape. “He is climbing up to the window. He is trying to get out of the ceiling. He is trying to dig through the wall, trying to dig under the wall,” Russell reported. “He’s manipulating the locks on his restraints so that he can get out. And he gets out, and he tries to climb the wall.”

In late 2011, at his sixth location, Bergdahl finally got free. “He successfully breaks his restraints. He gets out of his cell. He climbs down using a makeshift rope,” Rus-

“[U.S. TROOPS] RISKED THEIR LIVES MULTIPLE TIMES TO RESCUE SOMEONE THEY HATED MORE THAN THE ENEMY.”



sell said. “He hits the ground, and he starts running.”

He was gone eight and a half days, avoiding people, sticking to the woods. “To survive, he drinks what water he can find. To eat, he eats grass.” When they find him, he is sick, weak and nearly naked.

When they recaptured him this time, they built the 6-by-6-foot cage, with rebar welded to the side and no holes larger than what he could fit his hand through. When they moved him to a new cell, the cage was broken down and moved with him. “That was his home for the next three years, three and a half years.”

What Bergdahl endured, Russell said, was on par with the “most horrible conditions of captivity that we’ve seen in the last 60 years.” He also cited the code of conduct for POWs, which says, “If I am captured, I will continue to resist by all means available. I will make every effort to escape.” He did that, says Russell, who praised Bergdahl as “an Army of one” who took command of his hopeless battle without the psychological benefits of fellow prisoners. “He had to fight the enemy alone for four years and 11 months.... You can’t [overestimate] how difficult that is.”

OH VERY YOUNG

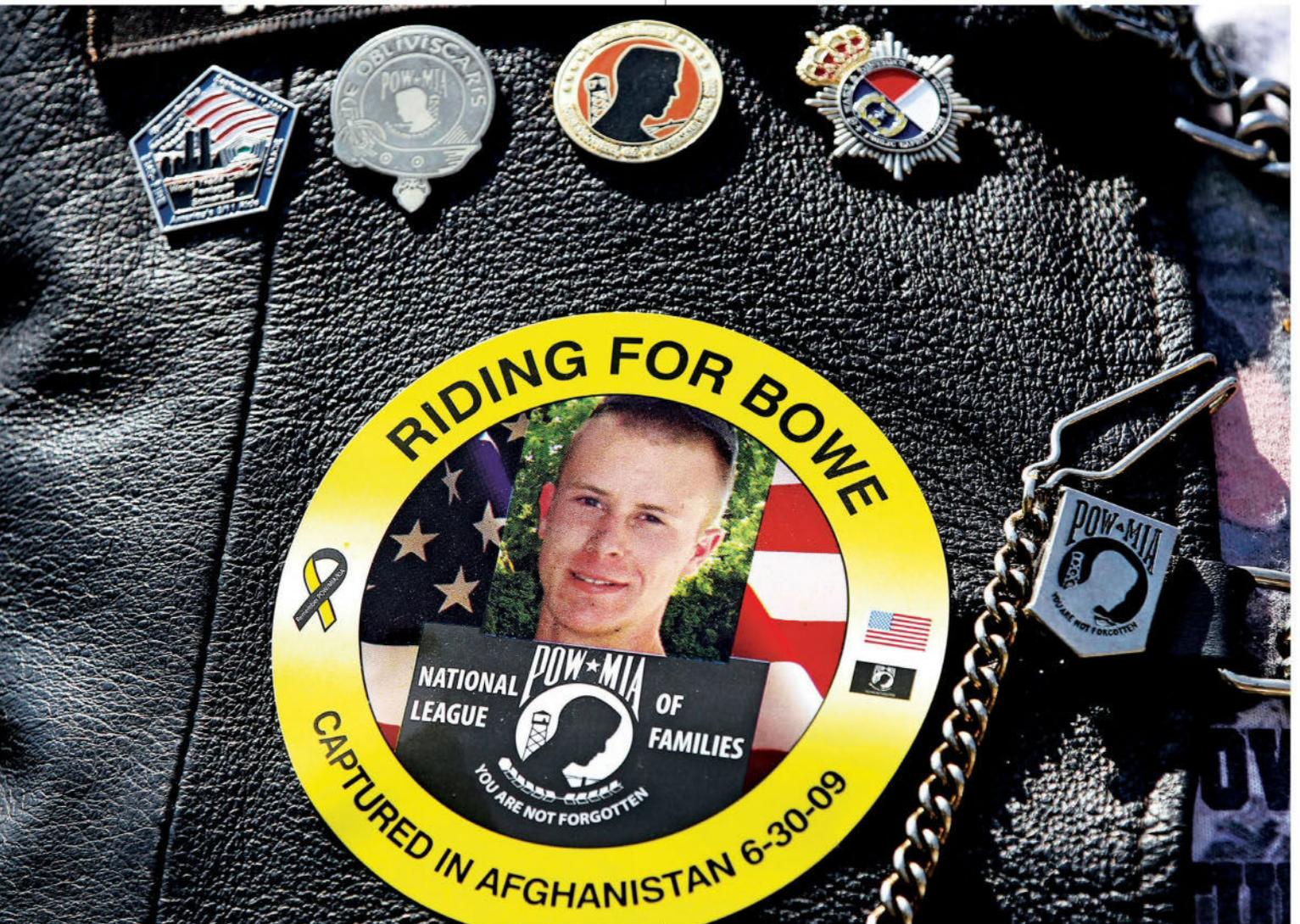
TODAY, AS Bergdahl and attorneys for both sides prepare for the general court-martial that threatens him with a life sentence, an information war is still being waged, with many pundits eager to convict him of even more heinous crimes, almost all of them imagined. In the weeks following the September hearing, Fox News viewers were told the following: that “seven of [Bergdahl’s] platoon mates died searching for him” (*O’Reilly Factor*, September 14); that “this guy defected, he went over to the enemy, he gave them aid and comfort” (*Fox & Friends*, October 11); that the day before he left, “Bergdahl tells his platoon mates he wants to join the Taliban and voluntarily leaves his unit during combat.... Afghanis tell reporters that Bergdahl came through

their villages looking for the Taliban. Bergdahl actually calls his unit and says he’s not coming back. How do we know this? We intercepted his phone calls” (*Justice With Jeanine*, October 11).

Not one of those claims can be verified. No one in 2nd Platoon was killed after Bergdahl was captured.



FROM LEFT: J. H. OWEN/GETTY; CHARLES DHARAPAK/AP



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UNFRIENDLY FIRE: Bergdahl's parents, left, received death threats, as did people in their small town who voiced support for him or his family.

Bergdahl did not defect. He did not tell anyone in his platoon he wanted to join the Taliban. His platoon was not engaged in combat when he left. His calls were not intercepted, because he did not make any calls.

But outrage trumps truth. After those broadcasts, multiple death threats were phoned into Bergdahl's hometown—irate callers targeted individuals and small businesses that, in the days immediately following his 2014 release, publicly expressed their support for him or his family.

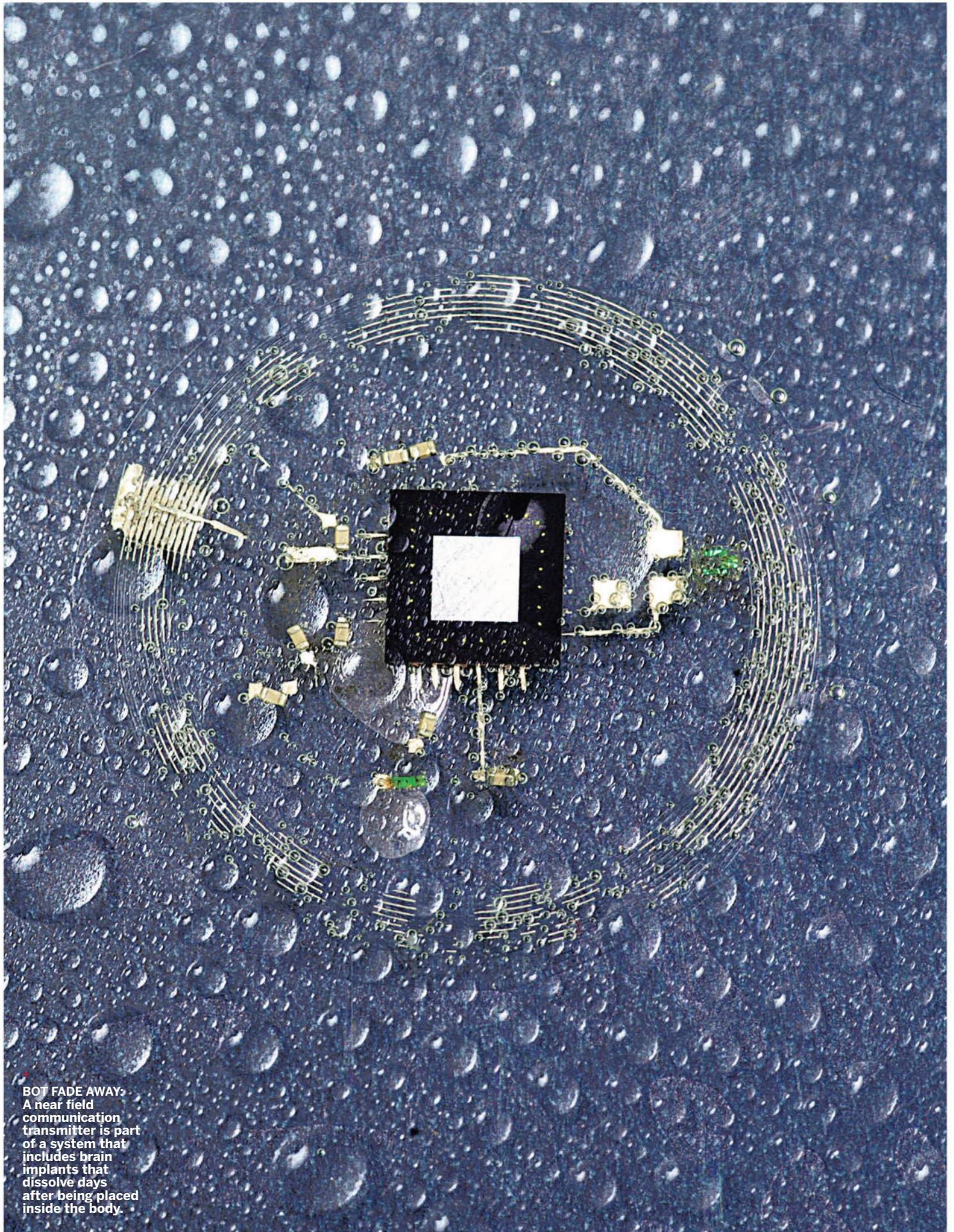
"I think the level of wildly inaccurate speculation is outrageous," Russell said on the witness stand in San Antonio. "Bowe Bergdahl has been accused of many, many things, but what you cannot accuse him of is his lack of resistance, his willingness to serve his country with honor in captivity, to do what he had to do to maintain his dignity and return."

A platoon mate of Bergdahl's who knew him best is of two minds. "He was my friend, but at the same time I resent him," he tells *Newsweek*. "He screwed

the guys. You don't do that to the guys. That's who you depend on. That's it. That's all we have." He wants to see him dishonorably discharged, but, like Dahl, does not believe Bergdahl should go to jail for a lengthy sentence. "I think he was just a dude that made a really, really messed-up decision. He paid for it. He paid for it dearly." But in the end, he adds, "you gotta forgive people. I'm a Christian. God forgave all of us. It'd be pretty arrogant of me not to forgive."

Russell, who has spent decades working with former hostages and detainees, was an imposing presence on the stand in San Antonio, a burly guy with a full beard, a booming voice and a military bearing. But when he was asked to discuss Bergdahl's will to survive under duress, the facts overwhelmed him.

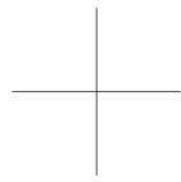
"I've asked this question of many POWs, 'Did you do your best?'" Russell said. "And all you can do is look at yourself in the mirror and say to yourself, 'I did the best job I could do.'" He stopped then, choked with emotion, as the hearing room went silent. "I think Sergeant Bergdahl did that," Russell said, fighting back tears. "He did the best job that he could do, and I respect him for it." **N**



BOT FADE AWAY:
A near field communication transmitter is part of a system that includes brain implants that dissolve days after being placed inside the body.



NEW WORLD



HEALTH

— INNOVATION —

VR

STREAMING

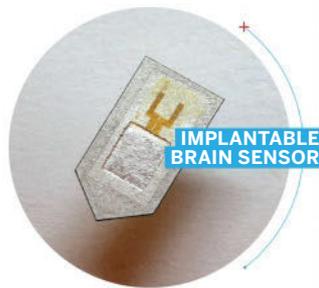
SPACE

ENVIRONMENT

GOOD SCIENCE

DON'T GET SWELL-HEADED

Researchers have designed an intracranial monitoring implant that dissolves inside the body



DESPITE THE unprecedented speed of scientific development in the 21st century, many biomedical devices still used by doctors are based on technologies from the 1980s. For example, when a patient comes in with a brain injury, one key concern for surgeons is tracking and managing pressure inside the skull. Yet the monitoring equipment that's been used for three decades is unwieldy and dangerous: Bacteria can form along the wires of these electronic implants, leading to infection, and the surgery to retrieve the devices exposes a patient to additional complications.

Two researchers, Dr. Rory Murphy, a neurosurgery resident at the Washington University School of Medicine and John Rogers, a professor of materials science and engineering at the University of Illinois, set out to devise a 21st-century monitor: an accurate, implantable sensor that would not require surgical rescue—because it would safely dissolve inside the body.

Utilizing high-performance materials—poly

lactic-co-glycolic acid (a biodegradable material found in a variety of devices approved by the Food and Drug Administration) and silicone—they built a prototype that could wirelessly transmit accurate data to an external system and dissolve in a bath of saline solution after a few days. Then the team tested the device in laboratory rats. According to Murphy and Rogers, the measurement performance of the device compared favorably to current clinical standards, and the device was absorbed, as planned, into the animals' bodies.

The researchers are now planning to test the device on a human patient during a surgery for traumatic brain injury. Down the road, they say, the device may be used in other organs during critical periods of care. “The devices can be adapted to sense fluid flow, motion, pH or thermal characteristics, in formats that are compatible with the body’s abdomen and extremities, as well as the deep brain,” the researchers wrote in a recent article in the journal *Nature*.

BY
SUSAN SCUTTI
 @susanscutti

J. ROGERS/UNIVERSITY OF ILLINOIS

DISRUPTIVE

HELLO FROM THE SAFE SIDE

Digital technology is killing great music in favor of familiar formulas

TECHNOLOGY IS making sure that from now on we get a boatload of Adeles but never again the likes of David Bowie.

Did you see *Straight Outta Compton*? Nothing like N.W.A is going to happen in any foreseeable future either. We're looking at another decade of music that's about as culturally significant as a new Ben & Jerry's flavor.

This is the opposite of what was promised at the dawn of the Web. Digital media was supposed to blow open the music industry, making it possible for any intrepid fringe artist to assemble songs on a laptop for next to nothing and find an audience somewhere out on the bony end of the long tail. We were going to be awash in creativity.

Instead, the technology has altered layer upon layer of music's economics in a way that wildly favors safe mainstream acts while kicking the daring outliers to the curb. Music in the streaming era is a winner-take-most affair—like almost all tech businesses now. So those with the widest appeal—Adele, Taylor Swift, Ed Sheeran—get rich and keep working, while those who challenge music's boundaries find it almost impossible to sustain enough attention over enough time to pull listeners their way.

The two biggest music headlines so far this year underline the trends. The first is that Adele, as if performing a miracle before unbelievers, kept her new album, 25, off streaming services and sold a whopping 7.5 million whole-album downloads and CDs in two months. The second was Bowie's death and the outpouring of



mourning for a kind of artist and icon that now seems lost for good.

"Adele is selling a huge amount to soccer moms, but is it having an impact on the culture? Not really," says Andy Gershon, who among

BY
KEVIN MANEY
@kmaney

other things manages OK Go. “Artists like David Bowie can’t get the momentum to have a career like David Bowie.”

“Some of the greats take time to develop,” Jeffrey Evans of Buskin Records says. “REM took four albums. The labels don’t have the patience for four albums anymore. We’re missing whatever talent would’ve been incredible if it had the time.”

Let’s be clear about how music markets have changed. Adele’s stand against streaming is kind of like a horse owner in 1915 shaking her fist at the rising number of cars on the road. Streaming has won. Nielsen Music reported that streaming doubled over the past year, from 165 billion songs to 317 billion songs. Digital downloads fell by 12.5 percent. CD sales continued their long decline. Significantly, a whole generation that has grown up since Napster has never or rarely paid for music, and it’s not likely to start.

Streaming brings with it some traits that are new to music. One is bounty. All music is available all the time, which actually favors music that sounds instantly familiar and gratifying. If a song on a streaming service doesn’t thrill you, it’s too easy to skip it and move on. Most listeners aren’t motivated to put in the work to get to like something different.

Streaming also breaks a linkage, forged by money, between artist and listener. In the old days, once you paid for an album, you had more motivation to listen to it all the way through multiple times. You felt a need to try to get to know it, even if at first the music sounded a little crazy. “Now that I use Spotify, I realized something rather distressing: I can’t remember the names of most of the bands I’ve listened to over the past couple of years,” wrote industry pundit John Battelle in a recent post on Medium. “For me the most important signal of value is an exchange [of money for music]. Streaming has abolished that signal, and I’m feeling rather lost as a result.”

The dynamic makes it hard for a “different” artist to build and keep a fan base that will stay loyal—and keep the artist afloat—as he or she experiments and challenges popular music. So the more unusual the music, the less likely it will get any traction.

Streaming plays into vanilla-ization in other ways. Streaming generates data. Record labels and artists know exactly what’s selling to whom. Data is great at revealing what people know they want, so if labels and artists make decisions based on such data, they will give us more of what we already like. Data is terrible at showing what people don’t yet know they’ll want. Data would’ve suggested that pioneers like Sly Stone or Nirvana should’ve never released a single song.

Now that streaming has made it more difficult for artists who aren’t Adele or Beyoncé to make a living, brands see an opening to step in and sponsor musicians. Jesse Kirshbaum, CEO of Nue music agency, calls sponsorship one of the big trends in music for 2016, and points out that brands will use data to find music that will help sell product. Of course, if you’re selling product, you don’t want to be associated with music that’s

IF YOU’RE SELLING PRODUCT, YOU DON’T WANT TO BE ASSOCIATED WITH MUSIC THAT’S GOING TO ANNOY ANYONE.

going to annoy anyone. Brands are not going to line up to fund Obnox or Stara Rzekka.

As music industry folks also point out, the notion that streaming forces artists to make a living playing live has its problems too. Now that so many acts need to play live as often as they can, the competition is intense to get onstage anywhere. With a surfeit of acts to choose from, promoters will hire the ones that will bring in the most people—generally, acts that are more mainstream or, like Billy Joel or Rod Stewart, have a proven if arthritic fan base.

True artists make music whether the money is there or not, but insiders like Evans and Gershon see the beginnings of a brain drain. No one will ever know how many artists give up and go back to software coding because the hurdles to success and the economics in music are worse than at any time since Elvis turned a postwar generation into avid record buyers.

All of this adds up to one powerful trend in music—a trend most of us already sense. Music is getting less diverse, less interesting and less forceful as an instrument of cultural change. And since we’re in the early days of streaming, that trend is only going to continue for years to come.

Bowie saw this coming earlier than most. In 2002, he told an interviewer: “Music itself is going to become like running water or electricity. So it’s like, just take advantage of these last few years because none of this is ever going to happen again.”

Goodbye, Bowie. Hello, boatloads of Adeles. **■**

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FLIP RESPONSE:
The music business now shuns original artists like Bowie in favor of derivative talents like Ed Sheeran.



IT'S NOT ALL IN YOUR HEAD

Why virtual reality is about to become a very real \$5 billion industry

IN A LUXURY suite 32 stories above the Las Vegas Strip, Ian Paul is explaining why virtual reality is so important to his company. Facing aggressive competition from free, ad-supported rivals, he believes VR can help him win over customers willing to pay a premium for an immersive, engaging experience. Paul could be an executive

with the New York Times Co., Fox or ESPN, all of which were at this year's Consumer Electronics Show (CES) to talk about how VR is going to change their respective businesses.

But he isn't. Ian Paul is a pornographer.

More specifically, he's the chief information officer for Naughty America, and he was in Las

BY
MARC PERTON
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YUYA SHING/REUTERS



Vegas to show off his company's new VR porn offering, a \$24.95-per-month service that he believes will give Naughty America an edge over ad-supported free porn sites. "Where would they put ads?" he asked. "On the walls?"

Welcome to the real world of virtual reality. At the same time Paul was explaining why his target customers don't need a 360-degree field of view ("They're primarily focused on what's going on in front of them"), movie studio Fox was hosting a private party for the launch of "The Martian VR Experience" an elevator ride away. According to a report issued by SuperData Research on the eve of CES, consumer VR will be a \$5.1 billion industry this year, up from just \$660 million in 2015.

Though it might seem like an overnight sensation, it has taken VR decades to reach this point. In the 1960s, pioneering computer scientist Ivan Sutherland created one of the first head-mounted displays—using tiny cathode ray tubes placed in front of each eye—though it was never commercialized. By the early 1980s, as liquid crystal display panels and personal computers began making their way into the marketplace, gaming company Atari launched a VR research lab.

Although the company shuttered the operation after just two years, Jaron Lanier and Thomas Zimmerman, two members of the Atari team, founded pioneering VR company VPL Research and began producing the EyePhone, a VR headset. They also invented the Data Glove, a version of which—Mattel's Power Glove—allowed users of early Nintendo gaming consoles to control (or attempt to control) their games through hand movements. The dreadlocked Lanier, often credited with coining the term "virtual reality," became the industry's poster boy, attaining rock star-like status among the technology's early fans.

There was just one problem. "The hardware just wasn't inexpensive enough," says Zimmerman. Prices for VPL's EyePhone started at about \$10,000 in 1989, while other VR systems went for as much as \$200,000.

There were other early attempts to create consumer VR products: Nintendo's Virtual Boy headset was a notable flop in the mid-'90s. But for close to two decades, VR was largely confined to research labs and high-end military or industrial applications. Consumer VR seemed to be something that, although tantalizingly close, was destined, like flying cars and jet packs, to

remain part of a future imagined in the past.

VPL filed for bankruptcy in the early 1990s, and many early developers moved on to other fields. Zimmerman became a researcher at IBM, while Lanier recorded music and eventually took up residency as a researcher at Microsoft. "I didn't have a choice," says Brian Blau, speaking about leaving the industry in the '90s (he began working with VR as a graduate student in the 1980s). "Nobody did. We all had to quit."

The technology finally caught up with the vision for VR, thanks to advances like desktop computers that were more powerful than the supercomputers of the Lanier era, and ubiquitous smartphones with high-resolution displays. Then along came Palmer Luckey, a college student and hardware engineering prodigy. In 2012, he launched a Kickstarter campaign to fund development of his headsets. Within four hours, he

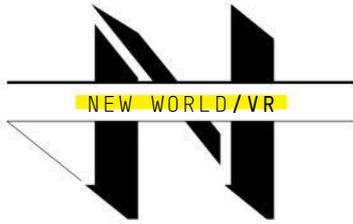
HOLLYWOOD EXECS PLACED RIFT HEADSETS ON TOP OF THEIR ELEGANT COIFFURES AND EMERGED FIVE MINUTES LATER BEGGING FOR MORE.

had raised \$250,000. Within days, the campaign brought in \$2.4 million from developers eager to purchase a prototype of Luckey's Rift headset. The company—now called Oculus VR—would eventually sell over 175,000 of its prototypes.

Driving developer enthusiasm were endorsements from veteran game developers such as John Carmack, who created the groundbreaking first-person shooter *Doom* in the early '90s and later came on board at Oculus as its chief technology officer. At the E3 gaming conference in 2012, Carmack called the Rift prototype "the best VR demo probably the world has ever seen."

In 2013 and 2014, Oculus demonstrated increasingly advanced prototypes at CES, racking up a raft of "best in show" awards. Then, in

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COIN OPERATED:
VR isn't a new
technology; what
prompted the
current explosion
was technology
that dropped the
price-point.



early 2014, Oculus was acquired by Facebook for \$2 billion. At the time, Facebook CEO Mark Zuckerberg said he hoped Oculus's technology would one day "become a part of daily life for billions of people."

At CES this year, it often seemed as if billions of people—and millions of companies—were interested in the future of VR. Oculus, which will be first-to-market with a high-end consumer VR system when it starts shipping the \$600 Rift in March, had a giant booth anchoring the show's Virtual Reality and Gaming pavilion, where show attendees waited for two hours or longer to get a demonstration. Meanwhile, Sony, HTC and Samsung all demo'd their headsets, and exhibitors sharing their latest VR apps ranged from Dassault Systèmes (a multibillion-dollar French software company) to the Syfy cable channel to NASA. The latter showed off its own Mars-themed VR experience, which ran on the free Google Cardboard platform.

One reason VR is finally poised for success is its ability to turn even jaded entertainment or electronics professionals into gushing fanboys. "If a developer says they don't have time for a meeting, we send them a box," says Jason Rubin, who heads Oculus's game development studio. "Then I get a call back: 'Oh my God. We have to talk.'" At the launch party for "The Martian VR Experience," Hollywood execs carefully placed Rift headsets on top of their elegant coiffures and emerged five minutes later begging for more. The director of the project, Robert Stromberg, gave up a successful Hollywood career—he's an Oscar-winning visual effects artist and director of the hit film *Maleficent*—to gamble on the future of VR.

"About two years ago, I was in postproduction on *Maleficent*, and I read an article about this company Oculus being bought by Facebook," Stromberg says. "My ears went up, and I called Oculus, and they invited me over to see what they were doing. I immediately started my own virtual reality company that same day."

Fox, which produced "The Martian VR Experience" with Stromberg, is equally bullish. "We're taking you inside the world of an astronaut, where you forget you're even wearing something on your face," says Ted Schilowitz, a Fox futurist (yes, that's his title). Fox wasn't the only major media company at CES. The New York Times Co., which last year sent 1.2 million free Google Cardboard VR viewers to subscribers, showed up to declare that, on top of the nine VR films the company produced last year, it now plans to roll out as many as two new VR videos each month.

While VR may excite everyone from Hollywood producers to NASA scientists, it's the gaming industry where it will have its proving ground. "You need the gamers to build scale," says David Nahon, director of the immersive virtuality lab at Dassault. "You need a massive market."

About \$3.5 billion of the \$5.1 billion revenue SuperData predicts for VR in 2016 is tied almost exclusively to gaming. The company expects to ship 5.4 million PC-based VR headsets in 2016, along with 1.3 million of Sony's PlayStation VR

OCULUS'S SHOOTER *BULLET TRAIN* LETS YOU SLOW DOWN TIME AND, *MATRIX*-STYLE, GRAB BULLETS OUT OF THE AIR AND HURL THEM AT YOUR ATTACKERS.

models. Mobile gaming will also play a big role in the adoption of VR, as consumers pick up affordable, smartphone-powered VR devices like Samsung's Gear VR and Google Cardboard; SuperData expects 42 million mobile VR headsets to ship this year.

At CES, the importance of gaming to the current VR market was never in question. From Sony to Oculus to HTC, most of the product demonstrations were game-based. Sony's *London Heist* game positions you as a passenger in a getaway car, and you have to shoot at assailants eager to steal your loot. Oculus's shooter *Bullet Train* lets you slow down time and, *Matrix*-style, grab bullets out of the air and hurl them at your attackers.

HTC demonstrated the space adventure *Elite: Dangerous*, and the quirky *Job Simulator*, where objectives include making coffee, turning on a computer and answering the phone. And one of Oculus's more intriguing demos was the

“Toybox” environment, in which you share a virtual space with another person (who, in this case, was in the next room but could easily be on the other side of the world) and play table tennis and tetherball, toss blocks around and shoot each other with a shrink ray. It’s a tantalizing taste of the potential for VR as a fully interactive experience involving other human beings, not just artificial environments.

Despite all of the enthusiasm, these are still early days for consumer VR. “We’re in the flip-phone era when it comes to VR,” says Nick DiCarlo, Samsung’s head of VR. “It will take a while for VR to reach the mass market,” says Oculus’s Rubin. And right now, the best new VR products are not priced for the masses. At \$600, the Rift is not an impulse purchase, especially when a PC with the horsepower to use it will run at least another \$1,000. The HTC Vive, when it’s released later this year, may sell for more than the Rift, while Sony’s PlayStation VR is expected to sell for at least \$400, more than a PlayStation 4 gaming console.

Then there’s the question of how large groups of consumers will take to VR. “I wonder about fatigue,” says Zimmerman, who pointed out that one reason early VR systems failed to take off was the fact that the displays couldn’t keep up with head movement, meaning what you saw

on the screen lagged behind what you felt you should see, resulting in something akin to seasickness. Although current systems have largely addressed that problem, it’s one that Steve Koenig, director of industry analysis at the Consumer Technology Association, agrees might not be completely solved. “How are people in the mass market going to react? We’ll get feedback and learn from them,” he says.

Such concerns haven’t dampened the enthusiasm of industry insiders. “I think immersion will just blow people away,” says Zimmerman. Adds Dassault’s Nahon, “This is going to be huge.”

Then again, today’s VR headsets may just be a transitional technology, as we advance toward immersive environments akin to *Star Trek*’s holodeck. Those advancements may well provide what VR pioneer Sutherland envisioned when he set about creating his early head-mounted devices.

“The ultimate display,” he wrote in 1965, “would, of course, be a room within which the computer can control the existence of matter. A chair displayed in such a room would be good enough to sit in. Handcuffs displayed in such a room would be confining, and a bullet displayed in such a room would be fatal. With appropriate programming such a display could literally be the Wonderland into which Alice walked.” **N**

+
LUKE, WARM: VR experiences can range from the seemingly mundane (playing Ping-Pong with someone in another room) to immersive games like EA’s *Star Wars Battlefront X-Wing* simulator.





ORGAN DRONERS

Long confined to military and hobby use, drones are now saving lives in India

ONE DAY IN early June 2014, the heart from a brain-dead 27-year-old man, a car crash victim, was sped from one hospital to another in Chennai, India. It was 6:30 p.m., right in the middle of rush hour, and 26 police officers worked hard to keep the 8-mile route free of traffic. The trip, normally a two-hour journey at that time of day, took 13 minutes. After the organ was transplanted into the body of a 21-year-old woman with chronic heart problems, the Indian news media celebrated the “green corridor,” a roadway cleared for organ transport, as a heroic feat.

Meanwhile, four students in Spain were thinking there had to be another way. Surely organs could be moved without disrupting traffic, incurring exorbitant fees and requiring police attention. Their solution—a drone designed for moving organs—originally created as a contest entry, is now becoming a reality.

An estimated 500,000 people are in need of organ transplantations every year in India. “The demand for organs is huge,” says kidney specialist Sunil Shroff, who founded the Multi-Organ Harvesting Aid Network, or MOHAN, an organization dedicated to increasing organ donation in India.

There’s some good news: Although only up to 5 percent of patients in India receive the organ they need (the U.S. rate, by comparison, is about 23 percent), the number of transplants there has been rising over the past few years. The vast majority of organs for transplant in India once came from living donors rather than cadavers,

and overall donation rates were low. A lack of both the infrastructure for handling the process and training for counseling families thwarted donations, as did, to a lesser extent, cultural and religious beliefs about removing organs from dead bodies. Efforts by MOHAN and other organizations to encourage citizens to register as donors—and the gradual improvement of infrastructure, including the training of transplant coordinators to speak with families after a loved one dies—have led to a slow but steady increase in the number of organs available for those in need.

Today, one of the biggest challenges is practical: moving organs from one hospital to another. Organ transplantation is a race. A harvested heart, for example, must be transplanted within four to six hours. In India, the race can be slow going. The number of cars on the road is the most glaring problem. Inner-city traffic is “horrific,” says K.R. Balakrishnan, chief of cardiac surgery at Fortis Malar Hospital in Chennai. When you’re on streets without operating lights, a left turn may take 45 minutes. In rainy weather, what is normally a 10-minute drive may take three hours.

Green corridors have proved an indispensable solution. When an organ is ready for donation, hospitals work with police and other authorities to move drivers to the roadside and keep the lights green, allowing ambulances transporting organs to avoid traffic snarls. But transplant specialists warn against relying on this as the sole method for moving organs in

BY
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ORGAN GRINDER:
New Delhi congestion can be deadly if a transplant patient needs an organ that is stuck in traffic.

metropolitan areas, especially as the volume of transplants increases. “You can’t stop traffic every day,” says Balakrishnan, who helped originate the corridors.

In 2014, the United Arab Emirates held the first Drones for Good competition, offering a prize of \$1 million for the most life-improving design. Among the finalists was Dronlife, an unmanned aerial vehicle for transporting organs and lab materials, created by four women then studying at Spain’s School of Industrial Design of Ferrol. Although Dronlife didn’t win—that honor was given to a crash-proof drone called Gimball—the invention drew the attention of David Carro Meana, president of IFFE, a business school in northwestern Spain attempting to foster socially responsible innovation. He and colleagues launched a for-profit company to market

A HARVESTED HEART MUST BE TRANSPLANTED WITHIN FOUR TO SIX HOURS.

Dronlife (the four designers own a share of the company), and Ricardo Blanco, a project director with IFFE, set about perfecting the technology.

As Blanco explains, the drone needed to satisfy a few basic requirements to be fit for organ transporting. The total weight must not exceed 44 pounds, and the drone must achieve an average flight speed of 56 miles per hour. So they built a



drone body out of a carbon-fiber composite, which is both lightweight and strong. The single-use container that carries the organ, which can weigh no more than 5.5 pounds, is made of inexpensive thermoplastic (think Legos), so it doesn't cost too much to throw it out after one use.

Temperature-control presented a predicament, since organs must be kept at 39 degrees Fahrenheit or lower. Ice keeps an organ cool from the time it is removed from a donor until it is loaded onto the drone but is too heavy to go along for the flight. Dronlife uses Peltier cells, devices used in some portable coolers and to cool electronics. Powered by the drone battery, an electric current passes through the cell, which heats one side and cools the other. The Dronlife cooling system achieves a temperature of 24.8 degrees Fahrenheit, cooler than necessary in case of delays. Considering the hot climate in India during most of the year, that could be a crucial benefit.

In order for the drone to navigate safely, Blanco and a team of engineers created software that would provide "a very precise mapping of the territory," he says. Every element of the landscape the drone may encounter needs to be identified. Ensuring a safe landing also requires detailed visuals of the destination. Dronlife is equipped with a special camera that identifies specific features of the area, and the software then interprets these features and issues flight instructions that ensure a clear path.

The total cost to get set up—for two drones, a base station, two piloting consoles, 45 containers and sanitation supplies using ultraviolet radiation, plus training—is estimated at \$2.7 million. A private company collaborating with a network of nonprofit hospitals in New Delhi, India, is now working with Carro Meana and his team to finalize the details. Testing of Dronlife in New Delhi is expected to begin later this year.

Other medical groups in India are also pursuing drones for organ transport. Shroff and his colleagues are planning trial drone runs in Delhi, pending approval by regional air traffic control. Balakrishnan and others at Fortis Malar are planning to test drone-based transport within the next few months. As Balakrishnan



COLD COMFORT: The Dronlife prototype has a special refrigeration unit that is very light and very cold.

sees it, the medical potential of drones is vast. The technology could also be used for carrying donated blood to blood banks or for bringing medications to people in need. "A whole lot of lifesaving stuff can be transported," he says.

Back in Spain, IFFE has its eye on many other life-improving drones. For example, Blanco is developing an artificial-vision system to identify chemical changes in soil that may signify the presence of a disease-causing infestation. The technology may also help identify levels of moisture in the soil, thus locating areas of over-use; find polluted areas in water; and detect land mines to allow their safe removal.

Until now, drones have been mainly confined to military operations and, increasingly,

THE TECHNOLOGY MAY FIND POLLUTED AREAS IN WATER AND DETECT LAND MINES TO ALLOW THEIR SAFE REMOVAL.

proposals for futuristic consumer services, like pizza delivery. "I think that what we're working on is more precious cargo," says Scott Pritchard, who runs Transplant Transportation Services, a California-based charter flight company for organ transport. He is in the early stages of investigating drones for this purpose in the U.S.

"Nothing is proven quite yet because everything on the civilian side is in its infancy," Pritchard says. "It's an exciting time to be around." **N**

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+ BOTTLE ROCKET: Portland, Oregon, has been at the front of the vermouth revival in the U.S., with several local makers, and plenty of eager imbibers.

D



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THE GREAT VERMOUTH SHAKE-UP

A long-neglected spirit is finally being brought back from the dead

PATRICK TAYLOR was a kid playing tennis with his brother in Santa Barbara, California, when one of them hit the ball out of the court. It rolled into a muddy ravine, in a shaded stretch of the mesa. After retrieving it, he recalls, his shoes were caked in muck, and the ball was covered in it. “There was a sweetness to that smell, of nutrients being recycled into the earth,” he remembers. “A rich, damp smell I found really intriguing.”

Thirty years later, Taylor was browsing the Herb Shoppe in Portland, Oregon, an hour’s drive from where he makes wine at Cana’s Feast, a winery just outside the city. He picked up a jar of kola nut and took a big whiff. The dank, earthy smell reminded him of something. He grabbed another jar, of turmeric, and “it just solidified”—that Santa Barbara tennis ball memory. “I’m going to make that,” he decided.

But Taylor didn’t plan to turn that sensory memory into a wine—at least not a traditional pinot noir or merlot. Being a winemaker is a profession Taylor finds rewarding but limiting, in a way, because “with wine, you’re making the

flavors nature gives you,” he says, “but at the end of the day, it’s always fruit.”

In 2009, Taylor was at a trade tasting, sampling a collection of Piedmont wines—nebbiolo, barbera, arneis and finally a Barolo Chinato, a spicy Italian red vermouth. He decided to try making the Chinato. “It was the most amazing thing. I fell down a rabbit hole,” he says. “It was probably the most cathartic turning point in my career.”

Vermouth, the stepchild of cocktail ingredients, has been relegated to the backs of bar shelves and the tops of refrigerators ever since it became less available during World War II. Neglected by anti-European baby boomers and classic-cocktail-spurning hippies, it’s too often mass-produced from cheap white wine stock, mistaken for hard alcohol (because it’s fortified with brandy) and abandoned on a shelf to rot (because it’s still wine).

In taking on vermouth, Taylor joined a new class of do-it-yourselfers who’ve recently rediscovered all manner of craft spirits, from herb-infused gin to pot-distilled vodka. Vermouth, in



particular, is in the midst of a remarkable renaissance, at home and abroad. I met Taylor at Coopers Hall, a winery, restaurant and taproom in southeast Portland that devotes half of its cocktail menu to 18 fortified aromatized wines and vermouths. (Vermouth is a fortified aromatized wine too. It starts as wine, and then it is sweetened with sugar or honey and fortified with brandy, then macerated—aromatized—with whatever wacky blend of herbs and spices the mad scientist creating it chooses, before being aged for one to six months. That fortification makes vermouth slightly shelf-stable, although it should still be refrigerated after opening.)

That menu includes Punt e Mes, a “sweet vermouth with additional bitter botanicals for complexity” and an “off-dry, herbaceous” Spanish vermouth called Perucchi. The most expensive 3-ounce pours on that menu are Taylor’s inventions: Hammer and Tongs’s L’Afrique—described as having earthy depth, kola nut and syrah—and Sac’resine, which is said to have notes of tree resin, pinot blanc and myrrh. For \$13, patrons can nurse a 3-ounce pour of a Taylor creation, served on the rocks, with a side of soda.

Both of Hammer and Tongs’s herb-infused offerings—the dry Sac’resine and the sweet L’Afrique—retail for \$35 a bottle. Taylor started selling vermouths in 2013 in Oregon, Chicago and Washington, where buyers snapped up all 200 of the cases he produced. The next year, he doubled his production. This year, he’ll sell more than 600 cases of vermouth. “The first few times I went to consumer events, I’d have to twist people’s arms just to get them to try it,” Taylor says. “Now I have more calls from distributors than I have production capacity.”

It’s a story being repeated from coast to coast, and continent to continent. Spain’s Catalonia region has for decades produced high-end vermouth in the town of Reus, near Barcelona, but only in the past 10 years or so has a new collection of *vermuterías* begun popping up around the city, says Eric Seed, owner of the Minnesota-based wine importer and distributor Haus Alpenz. Sandwich boards outside cafés and restaurants in Spain now routinely advertise *platas* with a side of sweet red vermouth over a tumbler of ice,

served with olives. In France and Italy, vermouth was never really forgotten, but it’s become increasingly popular in recent years, in part because those countries have stepped up both enforcement of drunk driving and taxes on alcohol. Vermouth has a lower alcohol content and is, as a result, less expensive.

In the U.S., surprising innovations have helped people rediscover the spirit. A half hour to the south of Portland, winemaker Tad Seestedt found himself in a creative rut when his friend, a cocktail historian, suggested someone make an Old Tom gin, a recipe for the spirit from 18th-century England that had all but disappeared. Once Seestedt set up the apparatus to make wine and distill spirits, his bartender friends urged him to make vermouth, a natural evolution because it is essentially a wine *and* a spirit. After beginning with a 200-gallon batch, Seestedt turned out three 500-gallon batches in 2015 and sold them all. His Ransom Spirits in Sheridan, Oregon, now makes a dry and a sweet vermouth.

“It’s kind of like being a dark lord of wine-making,” says Julia Cattrall, the company’s assistant winemaker. “With vermouth, you can use

EVEN IF YOU BLAME MILLENNIALS FOR THE DOWNFALL OF AMERICAN CIVILIZATION, YOU CAN THANK THEM FOR THE VERMOUTH RENAISSANCE.

all these flowers, change the balance of sweetness and create this great palate exercise. I love making vermouth.”

The Italians made the first vermouth, way back in the 18th century, infusing the wine with wormwood (*vermouth* comes from *wermut*, the German word for the herb). This ingredient is still required in Europe but not in the U.S.

By the late 19th century, vermouth was a staple cocktail ingredient, found in the Sazerac, the Manhattan, the Negroni and the martini, but somewhere along the way it fell out of favor. World War II played a role, because the war halted European imports. And in Europe, vermouth became the butt of jokes. Winston Churchill liked to say he preferred for a bartender to “wave the bottle of vermouth” over his martini



(and pour none of it in his glass). The 1960s didn't treat the wine any better, as the era embraced weed and psychedelics more than classic cocktails. Gen Xers didn't come flocking back to vermouth either, and those who mass-produced it began using increasingly cheap wine to make their underappreciated mixer. (Ever tried to sip Martini and Rossi straight?)

Then came a revival. The Great Recession helped (we buy more booze in hard times), as did Americans' love affair with all things craft: beer, wine and spirits among them. "Vermouth became an ingredient of interest again in cocktails, but there really weren't a lot of choices out there, and the choices that were out there weren't super awesome," Taylor says. "At the same time, there was a huge groundswell in the DIY movement."

Even if you blame millennials for the downfall of American civilization, you can thank them for this comeback. "The most resistant demographic is boomers," Taylor says, "and we get sideways glances from Gen Xers. But millennials are like, 'Dude, yeah, sure. I'll try a vermouth.'"

Growth in the vermouth business has been on a slow incline, says Neil Kopplin, who started

making his brand, Imbue, after 22 years in the restaurant industry (12 as a bartender). At a birthday dinner with friends in 2010, the group was "nerding out about cocktails," he says, and they started "fantasizing about what an Oregon vermouth would look like." The next morning, a few of them decided to make it happen. Marketing Imbue has been a long process, Kopplin says, because good vermouth is time-consuming and therefore somewhat expensive to make, and consumers are accustomed to paying \$8 a bottle for the mass-produced stuff. "We're still embryonic," he says.

Still, during the past three years, at least nine new concoctions have come from Oregon. Imbue was the first vermouth-maker in the Pacific Northwest and uses Willamette Valley pinot gris grapes, macerating its brandy in American oak to infuse "wonderfully subtle hints of vanilla and clove."

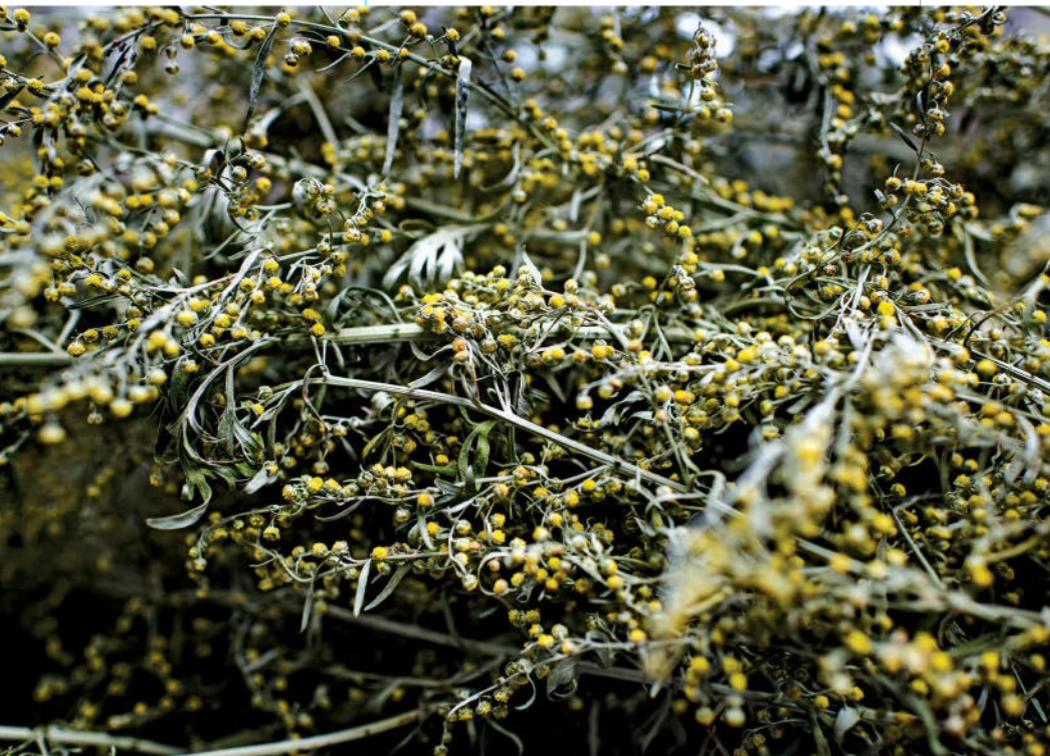
Taylor hopes vermouth can lead to a new understanding of the aperitif (vermouth is an aperitif wine) whose bitterness is designed to make us salivate, stimulating the production of gastric juices and promoting appetite. Happy hour in America has devolved into the hawk-

ing of cheap, stiff drinks and discounted burgers, when what it should be is a refined occasion of aperitifs and small, salty snacks that warm us up for dinner.

The proper path to happy hour bliss, contend Taylor and others, is to start with something light and bitter, not a stiff whiskey soda and a \$5 cheeseburger. Champagne, cava or vermouth would do the trick, paired with a salty snack, he says. So ditch the Martini and Rossi that's been sitting in your liquor cabinet for two years and replace it with something—anything—interesting. Once you open a vermouth, store it in the refrigerator and don't open a new bottle until you finish the old one. Before tossing it into a Manhattan or martini, try your fancy vermouth neat, on the rocks, with a splash of soda and a twist of orange, lemon or fresh cilantro. Experience the stuff in its virgin form first before burying it. And please, Taylor implores, for the love of God, "stop ordering your martinis bone dry." You're missing out on the most interesting part. **N**

BERRY, THE LEAD: The first vermouth was made in Italy in the 18th century by infusing wine with wormwood; the herb is still required in Europe, but not the U.S.

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THE BEET IS ON

A ban on food imports has sparked a renaissance in locally sourced delicacies

BEETROOT. You love it, right? And cabbage, obviously. Buckwheat? Turnips? Pork fat with pickled garlic? OK, the basic elements of Russian cuisine might not seem the most promising start to a world-beating culinary culture. But thanks to Kremlin-imposed bans on foodstuffs from Europe, the United States and Turkey, millions of Russians now have little choice. Italian Parmesan, Spanish ham and Greek olives have disappeared from supermarkets. In their place is produce from the farms, fields and woods of Mother Russia.

One of the unintended consequences of the self-imposed food sanctions has been a strange and wonderful renaissance in Russian cuisine—a hipster-driven, artisanal revolution that has transformed Moscow into one of the most interesting culinary capitals of Europe. Locavore cooking—the movement to eat only local food—is becoming popular in many places, but in just about all of them, it's through choice, not necessity. The Russians have made a blessing of it.

“It’s a very simple and beautiful idea—the land where you live is the land that feeds you,” says Jérôme Rohmer, a veteran of two of France’s three-star Michelin restaurants, Arpege in Paris and Pic in Valence, who has just completed a three-month stint as the guest chef at 15 Kitchen and Bar in Moscow. “Moscow is such an exciting place to work. The kitchen teams are ready to invent everything from scratch.” Rohmer’s Russian culinary riffs included roasted parsnips and roots in carrot sauce and three-ways cauliflower (puree, minced and tempura)—imagina-

tive vegetarian rarities in a meat-and-potatoes city. And while 15 Kitchen’s ingredients aren’t exactly local fare, they are all brought from the far-flung outposts of Russia—scallops and octopus flown in from Vladivostok, for instance. The look of 15 Kitchen, though, is pure Shoreditch or Williamsburg hipster, with full-sleeve tattoos, beards and trilby hats apparently obligatory.

Granddaddy of the new Russian locavore chic is Delicatessen, founded by three non-chefs who reinvented themselves as restaurateurs and barmen—growing exotic facial hair in the process. The place is a favorite of the city’s arty crowd and is decorated like a bohemian apartment. Delicatessen’s bar area is stacked to the ceiling with mysterious homemade infusions—wormwood-infused bourbon, anyone?—that have earned the spot multiple listings on the Best Bars of the World website. A farm-to-table cooperative called LavkaLavka, founded by chef Boris Akimov by teaming up with farmers across Russia in 2008, offers such delicacies as a Russian-produced artisanal Gouda cheese and dozens of varieties of dried and marinated mushrooms, as well as Siberian deer dumplings and Arctic berry preserves.

“We are trying to source from all over Russia,” says LavkaLavka spokeswoman Maria Zlatopol'skaya. “We are trying to celebrate different areas of Russia, bring the regions to Moscow, to help people know what they have in their country.”

Patriotic dining has spread from the hipster fringe to the city’s suit-wearing plutocrats. A recent favorite of moneyed Muscovites is

BY
OWEN MATTHEWS
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HARD TO BEET: Local goodies at LavkaLavka, a farm-to-table cooperative in Moscow at the forefront of the city's locavore revolution.

Voronezh, named for an industrial city on the middle Volga River hitherto famous only for UFO sightings and Communist sympathizers—but now, apparently, also as the home of world-class, grass-fed beef. Clients choose their raw cuts from a butcher-style counter and consume them in an opulent dining room that somehow manages to mix factory chic with the aesthetics of a pre-revolutionary palace. The same concept at half the price can be found at Chaban Haus, a popular new eatery on the downtown artery of the New Arbat that sources its meat from the eponymous grasslands of the North Caucasus. And Lepim i Varim (Shape and Boil) has reinvented humble Siberian *pelmeni* (dumplings) by mixing squid ink, turmeric and spinach into the dough and filling it with salmon, cod and salty Georgian *suluguni* cheese. Across town, the distinctly un-hipsterish Ah! Beatrice appears conservative and bourgeois—but is devoted to slow food like honey-roasted duck, Black Sea cuttlefish spaghetti and a traditional Ukrainian borscht that explodes with beefy beetroot flavor.

Slow food and farm-to-table are hardly home-grown Russian concepts, but the combination of sanctions and a falling ruble have pushed Moscow's once-marginal locavore chefs and entrepreneurs to the fore. Before the crisis hit last

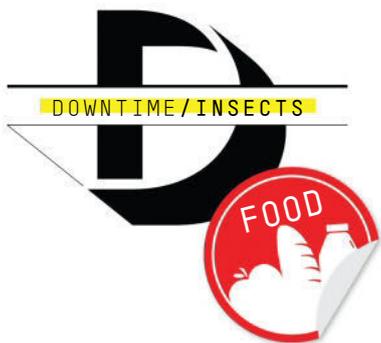
year, writer Michael Idov joked, "Every Moscow restaurant has the same theme—the theme is, you're not in Moscow." But now that dozens of the obnoxiously bling, eye-wateringly expensive restaurants for which the city used to be infamous have closed, it's the hipster-inspired places that are still standing. After two decades of slavishly copying every Western trend to wash up on its shores, Russia is busy forging an original aesthetic—not just culinary but artistic too.

Moscow loves paradoxes. It's been half a generation since the city was so poor—but it has never been more vibrant. From the avant-garde theater at the Gogol Center to the Cosmoscow art fair, exhibitions at the Garage Museum of Contemporary Art, nightly DJ sets at Redaktsiya and public lectures at the Strelka design institute, Mos-

cow is bursting with new creative energy. Much of this is thanks to Sergei Kapkov, oligarch Roman Abramovich's right-hand man turned Moscow minister of culture, who resigned in 2015 after a disagreement with the mayor. Kapkov reinvented Gorky Park as a foodie, arty landmark, built bike lanes across Moscow, scrapped the metal kiosks that used to clutter the pavement and brought in smartphone-based citywide paid parking that has

PATRIOTIC DINING HAS SPREAD FROM THE HIPSTER FRINGE TO MOSCOW'S SUIT-WEARING PLUTOCRATS.

cleared up sidewalk-hogging illegal parking. Muscovites can now get around via Uber, and AirBnB accommodation in the city is a quarter of the price of equivalent homes for rent in New York. There's fast, free Wi-Fi in the metro, and opera and theater tickets cost a third of those in London. Since most Russians can no longer afford to travel to Europe, air fares are also cheaper than usual. All of which makes Moscow the unexpected cultural and gastronomic destination to visit this winter. **N**



THOSE INCREDIBLE, EDIBLE BUGS

Some companies are betting big that the average person won't mind a cricket (or 75) in a cookie

STEFÁN THORODDSEN still has a few bugs to work out with his latest culinary endeavor.

"My grandma thinks I'm crazy. She literally does not believe we are making an actual product," says the 28-year-old Reykjavik, Iceland-based entrepreneur. "She says to me, 'Sure—you're making food out of insects. Sure.'"

Thoroddsen has faced similar discussions many times since the summer of 2014, when he and his longtime friend Búi Aðalsteinsson founded the Crowbar protein company. Its flagship product is the Jungle Bar, a protein bar with a savory, cranberry-heavy flavor, slightly tangy aftertaste and pleasingly chewy texture of brown rice and quinoa. However, one main ingredient is more exotic than quinoa, especially in Iceland: crickets. And quite a bushel of them at that: Seventy-five of the insects, milled into powder, are in every fist-sized serving.

Crowbar is the first company to push insect-based food in Iceland, a country with a regional diet heavy on fish and lamb. On the six-legged front, it's an even unlikelier sell, as crickets are not indigenous to the island. (Neither are mosquitos or most spiders.)

Thoroddsen admits that their toughest task has not been acquiring the unusual ingredient—which they buy in powdered form from a Canadian distributor—but rather pushing it past psychological obstacles. "When you ask someone if they would like to eat a cricket, the most

common reaction is disgust. Our main mission is to lower the barrier so people are willing to have the first bite," he says. "We did some research on different types of insects we had in mind, and crickets scored the highest over cockroaches, larvae, flies. Crickets are in nature, they have a sound, and they don't directly link into our concept of the disgusting insect."

Aðalsteinsson, 26, has pushed the Jungle Bar to market largely by emphasizing its nutritional composition; cricket powder can be over 50 percent protein, one reason edible insects are an estimated \$20 million industry in America, according to *Fast Company*. He's also championed its green appeal.

"It doesn't only taste good. It's a great source of protein, minerals like iron, calcium, B-12 vitamin, omega-3s and -6s—we use the term *superfood* for it," says Aðalsteinsson. "Also, people talk about how insects could be the food source that solves world hunger. It's almost 20 times more efficient and sustainable to grow 1 kilogram of protein from insects as opposed to beef."

Though crickets have been a popular snack for years in Asia (particularly China and Thailand, where they are often fried to a popcorn-like crisp), insect consumption was largely verboten in America and Europe until a few years ago. In 2012, hydrologist Pat Crowley launched Chapul, a cricket-based protein food company influenced by his international travels and



BY
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REGIS DUVIGNAU/REUTERS



DO FLIES GO WITH THAT SHAKE? Food using dehydrated insects, such as these macaroons, could feed billions at a fraction of the cost of beef.

ecological concerns. Raising livestock consumes more water than any other human activity on earth, he noted, which prompted him to experiment with ways to make crickets more palatable to Westerners.

“We were the first ones to make the cricket flour and coin that term, though there was plenty of anecdotal experience from Native American groups and Aztecs doing a fairly similar process,” explains Crowley, 36, who lives in Salt Lake City. “I pulled the concept from the sushi industry, which was very strategic with its entry into the U.S. market. They really focused on the visual aspects of

“INSECTS COULD BE THE FOOD SOURCE THAT SOLVES WORLD HUNGER.”

the foreign ingredients, so they put rice on the outside of the first California rolls, they hid the seaweed, and they put avocado in, which was familiar to us. The bar was our version of that California roll; the flour eliminates the visual component [of insects].”

After raising modest initial funding on

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DOWNTIME/INSECTS

Kickstarter, Crowley hawked Chapul on the popular reality show *Shark Tank* in 2014. Several of the investor-judges turned up their noses, and their resident curmudgeon, Kevin O’Leary, immediately responded to Crowley’s pitch with “There is no way I’m eating that.” Undeterred, Crowley got a \$50,000 investment from the show’s wealthiest panelist, Mark Cuban. (Cuban was most amenable to the taste as well; Chapul bars are manufactured in four flavors, including the Aztec Bar with cayenne and chocolate and the Thai Bar with ginger and lime.)

“*Shark Tank* was actually pretty representative of consumers at that time, we found,” says Crowley. “There were five judges, and a couple of them immediately were just not into it, and two were on the fence. And there was one who was pretty intrigued, being Mark. We had about \$80,000 in sales total when I walked in. That first week [after the episode aired], we had about \$100,000 in sales.”

Greg Sewitz and Gabi Lewis, the co-CEOs of the eXo protein company, launched their cricket-based bar in the spring of 2014, as college undergrads, after Sewitz attended a conference on environmentalism at the Massachusetts Institute of Technology hosted by the Dalai Lama. They are now based in New York City and have distribution in the United States, Singapore and the United Kingdom.

“Protein bars for us are really just the tip of the iceberg. It’s a vehicle to get people used to the idea of consuming insects and cricket protein specifically, so we’re working on a far broader portfolio of products,” says Lewis, 25, who declined to offer details about specific future products. “There are companies already making cricket chips, cricket cookies—things you wouldn’t eat for protein.” They are hoping to expand further internationally, including more extensively in Lewis’s native Scotland.

Crowley says Chapul’s sales have increased more than 200 percent per year. The company will debut a cricket-based all-purpose baking flour in January 2016.

Jungle Bar’s inaugural shipment of 10,000 bars arrived in Iceland in late December; Thoroddsen said he and Aðalsteinsson were



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FLOUR POWER: Insects, such as the crickets farmed at this plant, are dehydrated and rendered into a flourlike powder for use in pastries.

worried that customs officials would be suspicious and halt their entry. “We didn’t know what to expect,” he says. “We just had a gut feeling that someone would stop the insects. Fortunately, all went well.” They have secured a deal to sell the bars in the major Icelandic supermarket chain Hagkaup, and they are discussing deals with European retailers for 2016.

But that doesn’t mean the Jungle Bar team will be pushing to eradicate any other menu staples

“WE DID SOME RESEARCH ON DIFFERENT TYPES OF INSECTS, AND CRICKETS SCORED THE HIGHEST OVER COCKROACHES, LARVAE, FLIES.”

soon. “We’re really trying not to be preachy; we’re not trying to get people to stop eating meat,” insists Thoroddsen. “We’re trying to implement a product that’s new, has other possibilities and just so happens to be extremely sustainable.”

He admits, though, that some customers have had negative feedback about the taste. “A few have said, ‘Cranberries are not my flavor.’”



YOU'RE 100% WRONG ABOUT

Steak

THERE'S NO CULINARY PLEASURE AS PURELY MEATY AND 'TREATY' AS STEAK TARTARE

PAN-FRIED. BROILED. Roasted. Grilled. Braised. Sous vide. There is no wrong way to cook beef, but there is one way more right than all the others: not at all. Carnal perfection is a puck of raw cow, chopped, seasoned and graced with a hat of raw egg and a side of toasted baguette. Steak tartare is meat in its platonic ideal.

I realize I am in the minority here, even among my fellow carnivores. Given the growing concerns about the safety of what we eat—enjoy a Chipotle burrito lately?—trusting a restaurant with uncooked meat would seem to invite every bacterium in the food chain into your alimentary canal.

But steak tartare is delicious partly because it is dangerous. Foodism without adventure is a mountain without slope.

Steak tartare is meat with plenty of taste but no illusions. Meat is inarguably murder, but

if you're going to herd a heifer through the pearly pasture gates, why also torture its carcass with scorching flames and barbecue sauce? Why force it to share its glory with wilted spinach? The toothsome saltiness of properly executed steak tartare always puts me in a contemplative mood, a morbid gratefulness to the bovine that sacrificed its life in the service of carnal deliciousness.

Tartare's origins are confusing; the notion that it is an ancient Central Asian delicacy is probably apocryphal. Most likely, it's a relatively recent French innovation, one whose central ingredient is sometimes horse. In fact, the bold young French-Canadian chef Hugue Dufour tried to bring equine tartare to his Queens, New York, restaurant several years ago, only to cancel the plan amid a depressingly predictable furor.

On a recent evening, I went to District, an Oakland, California, restaurant whose tartare the *East Bay Express* proclaimed in 2012 "might be the best in the city." Chef Bob Cina told me his cows come from revered Montana rancher Derek Kampfe. Cina shuns what he calls the "heavy-handedness of things like Tabasco, cheap mustards or any other flavors that may cover up the quality." His tartare marries Gallic tradition with a Northern California sensibility: local olive oil, French mustard with a concentration of pinot noir.

Our steak tartare arrived in a perfect cube, hemmed in by twin mounds of salt and pepper, as well as helpings of violet mustard, cornichons and, best of all, slices of gruyere toast. My dining partner and I hesitated, a slight trepidation keeping our forks at bay.

There was, it turned

out, nothing to fear. My companion thought the meat tasted more "brown" than "pink": that is, raw, but so perfectly seasoned it tasted as if it had been cooked. Like the best tartare, this one was buttery and fragrant, with a far more welcoming mouthfeel than sinewy steak. With the last of the toast, I chased the final flecks of meat across our plate.

Whereas steak is an invariably ungainly visitor in the digestive system, the aftereffect of steak tartare is rather like that of sushi. But better than that—more substantial and much more complex. I do not imagine that tartare is something one should eat with any great frequency. But I can even less imagine never eating it at all.

BY
ALEXANDER
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[@alexnazaryan](https://twitter.com/alexnazaryan)

SAFETY FILM

KODAK



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TERRY O'NEILL/
GETTY



DOWNTIME

DINING

MUSIC

BOOKS

ART

MOVIES

STYLE

RETURN OF THE THIN WHITE DUKE?

David Bowie left behind a vast collection of personal possessions and a library of unreleased music. How much of it will be made public?

+ **DIAMOND DOGS IN THE ROUGH:** Bowie fans are eager to sample his vast trove of unreleased material, including an unfinished book about objects, a long-rumored autobiography and five demos for what was to be his next album.

THREE DAYS after the recent death of David Bowie, the British singer's longtime producer, Tony Visconti, said in an interview with *Rolling Stone* that Bowie had been planning a new album shortly before he died and had written and recorded demos of at least five songs.

The news of the unreleased music from Bowie provided some comfort for the millions of fans still mourning the singer. But Visconti's revelation also prompted questions among fans and even people who knew Bowie well and did not want his publicly available work to end with his last album, *Blackstar*, which was released two days before his death on January 10. Fans began to ask what other products of Bowie's often highly productive imagination are in his archive. Will those works be made public? Did he ever write the autobiography that he had at times openly considered and that publishers have pre-

viously described as the biggest possible get in the big-money category of rock memoirs? And whose decision will it be to release Bowie's work?

Bowie's output can be roughly divided into two categories: his music and the physical objects he left behind. People who were close to him have shared with *Newsweek* previously unpublished details about what's in the archive.

First, the bad news. There is no Bowie memoir, according to one of those close to the star, who spoke to *Newsweek* on condition of anonymity out of respect for the family. The long-standing rumors of an autobiography, snippets of which the journalist Cameron Crowe published in 1976, are unsubstantiated. At the time, Crowe hinted that the autobiography might never be written: "Despite David's enthusiasm, one suspects it may never outlast his abbreviated attention span," he wrote.

BY
MIRREN GIDDA
@MirrenGidda



Nor is a book, which Bowie agreed to produce for Penguin, likely to be published (if it was ever completed). The book was titled *Bowie: Object*, and the singer's website confirmed its existence in 2010. "*Bowie: Object* features 100 fascinating items that give an insight into the life of one of the most unique music and fashion icons in history," the statement read. "The book's pictorial content is annotated with insightful, witty and personal text written by Bowie himself."

But Matthew Hutchinson, a spokesman for the publisher, tells *Newsweek*, "Penguin is not expecting it to happen." The person close to Bowie says that Bowie didn't complete the book before he died.

Victoria Broackes, who curated an exhibition of Bowie's possessions in 2013 at London's Victoria and Albert Museum, has a theory: In the singer's mind, the V&A's sold-out show served as a substitute for *Bowie: Object*.

Broackes is one of the few people outside Bowie's staff or inner circle who have seen more of Bowie's archive than what was in the V&A show; she says only about 300 objects—as well as film and photography—from the archive were in the exhibition. The show, "David Bowie Is," is still touring and is now in the Netherlands. Bowie's office is in talks with various cities regarding where it will travel after Japan, its next stop, in 2017.

In London, the V&A sold over 67,000 tickets before the exhibition opened, more than three times the advance sales for any other V&A exhibition. Now that the singer is dead, the appetite for seeing the clothes, writings, instruments, artwork and numerous other items he left behind will likely grow. (Amazon sold out almost all of its stock of Bowie CDs and vinyl albums following his death, and the day after his death Spotify reported that streams of his music were up 2,700 percent.)

Broackes had long thought Bowie would make a fascinating subject for an exhibition. So when, in late 2010, she heard from music industry professionals about the existence of his archives, she approached his team in the hopes of a col-

laboration. Bowie, communicating through his staff, agreed to give the V&A unprecedented access to his archives.

"The archives are unique in pop music and would be unusual, in their scope, for any artist or indeed any individual," Broackes says, referring not just to their size but also to the amount of "process material," which shows how Bowie worked. His office first showed her and co-curator Geoffrey Marsh an online catalog of more than 75,000 items at a warehouse in New York state, one of three that house the collection. They then drew up a short list and began viewing the objects over the course of six weeklong visits in 2011. Members of Bowie's staff handed Broackes and Marsh photos, costumes, handwritten lyrics, storyboards, video footage and even tiny sketches on the back of cigarette packets that they had catalogued by number.

"It's always a thrill to see objects you've only seen on stage or screen," Broackes says.

It's unclear what drove Bowie to hold on to so many of his possessions, but in the 1990s he began approaching fans and collectors and asked to buy back their archives of Bowie memorabilia. Kevin Cann, a writer and graphic designer, was one of the collectors Bowie approached. His archive, which is in secure storage in London, encompasses thousands of items, from which the V&A took 20 for its exhibition. Bowie once told Cann, "I was a bit lax early on. I used to give things away." Cann bought up some of these

IN THE 1990S, BOWIE BEGAN APPROACHING FANS AND COLLECTORS TO BUY BACK THEIR BOWIE MEMORABILIA.

gifts from musicians and old managers who had worked with the singer.

"Bowie's collection is like its own museum," Broackes says. One of the oldest items in it is a photo of Bowie aged just 10 months old. The one object Broackes most wanted to exhibit but couldn't was a Grafton saxophone, crafted out of white Bakelite, that Bowie's father gave him when he was 13. Ultimately, it proved too precious and too fragile for Bowie to part with and remains in storage.

Cann says Bowie once indicated to him just how big his archive was. One day in 1994, when





COSTUME CH-CH-CH-CH-CHANGES: The "David Bowie Is" show, which is still on a global tour, contains only a small fraction of the 75,000 items he had cataloged in his New York warehouse.

the singer was at Cann's apartment in Watford, just north of London, to work on an exhibition for the charity War Child, Cann showed him a drawing he had obtained that either Bowie or a bandmate had sketched in 1965. Cann suggested to Bowie that the drawing might be the oldest known surviving piece of art made by Bowie. "No, I've still got all my stuff from school," Bowie replied, according to Cann.

Bowie presumably laid out in his will what he wanted done with this rich trove of material, and those instructions are likely to be most intriguing when it comes to his music. Sharing Bowie's tens of thousands of possessions with the hundreds of thousands of people who would love to see them—more than a million people saw the V&A show when it was in London—would pose a logistical challenge so great that most of the items in storage may never be viewed up close. But the creative output Bowie was most famous for—his music—could be made instantly accessible to billions of people.

According to the person close to Bowie, there

is "a long list of unscheduled musical releases that Bowie planned before he died." These releases, *Newsweek's* source says, have been divided into eras and will not necessarily be released in chronological order. It is not yet known whether they will contain previously unheard work, though past rereleases of Bowie's work have. The first of these compilations will be on sale before the end of 2017.

A cast album for Bowie's off-Broadway play *Lazarus*, which opened in December, is also in production. A music industry source close to the singer tells *Newsweek*, "Bowie was one of those artists who was very engaged and liked to control what was released from the vault."

Bowie, Cann adds, was smart too. His new projects came out in drips, not a flood. And despite the vastness of the archive, Cann doesn't think we'll be seeing much of it anytime soon. "Bowie only gave you just enough of everything to still keep you hungry," he says. "*Blackstar* has only come out recently, which is enough for the moment. There's plenty of time for other things." **N**



THE CURATED LIFE

CARTIER FRISSON

A gem of an exhibition in Geneva shows the influence of East Asia on the French jeweler

ON A RECENT trip to Switzerland, I had the opportunity to visit an enchanting exhibit called “Asia Imagined” at the Baur Foundation, a private museum in Geneva. Located in one of the spacious belle époque villas that crown the hill of the old town, the Baur is a museum of Far Eastern art and objects collected by Alfred Baur (1865-1951), a Swiss fertilizer magnate turned aesthete.

Baur’s fascination with art from East Asia stemmed from his travels in Asia in the 1880s (he was posted to Colombo, Sri Lanka, in 1884). After a long voyage to India, China, Korea and Japan in the 1920s, he began to focus on collecting pieces of exquisite quality. Although I do not know enough about jade to comment, I am told that his collection of more than 130 carved jade pieces is dazzling enough to bring on an attack of Stendhal syndrome among visiting Chinese lovers of the green-colored stone. It is a collection that rewards inspection—even for the uninitiated.

For the “Asia Imagined” exhibit, which runs from November 12 until February 14, the Baur Foundation teamed up with French luxury house Maison Cartier to show the influence of Asia on the Cartier Collection over the course of more than a century. Parisian jeweler Alfred Cartier (1841-1925) was a contemporary of Baur, and the exhibition features more than 160 Cartier creations, exploring how the 19th- and 20th-century fashion of collecting “curios”

from the Far East had a powerful impact on collectors and creators in Europe at the time.

In 1928, Baur began to develop an interest in Chinese ceramics, becoming increasingly fascinated by this field and eventually forming a collection that spanned over a thousand years of Chinese history, from the Tang to the Qing dynasty. In Paris that same year, Alfred Cartier’s son Louis used a late 17th- or early 18th-century Chinese famille verte plate as the model for a vanity case.

“Asia Imagined” brings together the inspired chinoiserie of Cartier with the treasures of the Baur Foundation to create an exhibition with enough curatorial kick to satisfy the academic visitor and more than enough dazzle to keep the mere student of beauty—like me—fully engaged. The lighting has the effect of making these sometimes peacock-bright objects emerge from the stygian gloom of the basement rooms, presenting already-glamorous objects with an additional theatrical flair. The large dragon screen clock appears to float in the darkness, its intricately carved white jade dial almost luminous and the diamond hour markers shimmering. It is one of the stars of the show; bigger, I am told, than the one in the Musée des Arts Décoratifs in Paris.

“Asia Imagined” disabuses visitors of the notion that Cartier was creating pastiches of Chinese art. The curator has placed Cartier items in



BY
NICHOLAS FOULKES



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REIMAGINED: The exhibit shows how Asian decorative artifacts, such as this 19th-century inro, influenced designers in Europe.

vitrines alongside the Asian originals, and there were occasions when I had to study the information cards to determine which was which. One vitrine shows two jade paper knives: Upon closer inspection, one turns out to be a Qing dynasty hairpin made from jadeite, a rarer, more valuable

form of jade; the other is a white jade paper knife carved with a floral motif and scattered with a handful of ruby cabochons.

Side by side, two carved pendants—one in green jade, the other in tourmaline—share an aesthetic sensibility. Only the addition of a platinum mount, a few diamonds and ruby cabochons betray the jade pendant as a product of Cartier's workshops. (The other was made in China during the 18th or 19th century.)

Nevertheless, the exhibit is much more than a sophisticated "spot the difference" competition; it is a serious, as well as enjoyable, study of Asia's influence on the European decorative arts.

Of course, there are some treasures that are indisputably Cartier. There is no mistaking Daisy Fellowes's Hindu or Tutti Frutti necklace, nor the similarly ebulliently colored bracelet and brooches that once belonged to Cole Por-

THESE WORLD-CLASS JEWELS RANK AS MASTERPIECES, ARTWORKS THAT IN THEIR WAY OCCUPY THE POSITION OF A VAN GOGH OR A PICASSO.

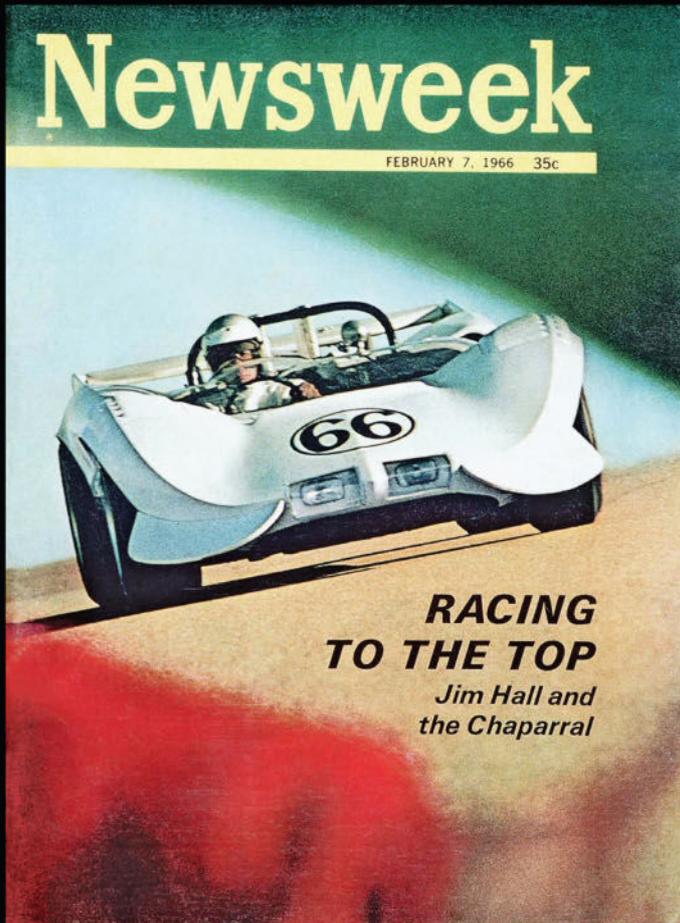
ter's wife, Linda Lee Thomas. These are world-class jewels that rank as masterpieces, artworks that in their own way occupy the position of a Van Gogh or Picasso.

The Baur Foundation show is not nearly as magisterial as the recent exhibition at the Grand Palais in Paris; instead, it is an exercise in curatorial focus. The exhibit illustrates obliquely just how rich and well-researched the Cartier Collection has become under the direction of curator Pascale Lepeu. The idea of jewelers buying back important pieces for their archives is a relatively recent phenomenon, but Cartier started early, with a clock bought in a 1973 auction. Now the collection numbers over 1,500 pieces, ranging from discreet cufflinks to Jean Cocteau's spectacular allegorical sword, commissioned from Cartier when he joined the Académie Française. Each piece tells its own story.

This little jewel of a show in Geneva offers the chance to appreciate a small but beautiful fraction of these items in new way. **N**

REWIND

50
YEARS



FEBRUARY 7, 1966

LONGTIME NEWSWEEK COLUMNIST
KENNETH CRAWFORD RIDICULES
SENATOR J. WILLIAM FULBRIGHT'S
STANCE ON THE VIETNAM WAR

“It must be
acknowledged
that Fulbright has
that rare

thing in politics: the
courage to be wrong.
But does he have
to keep proving it?”