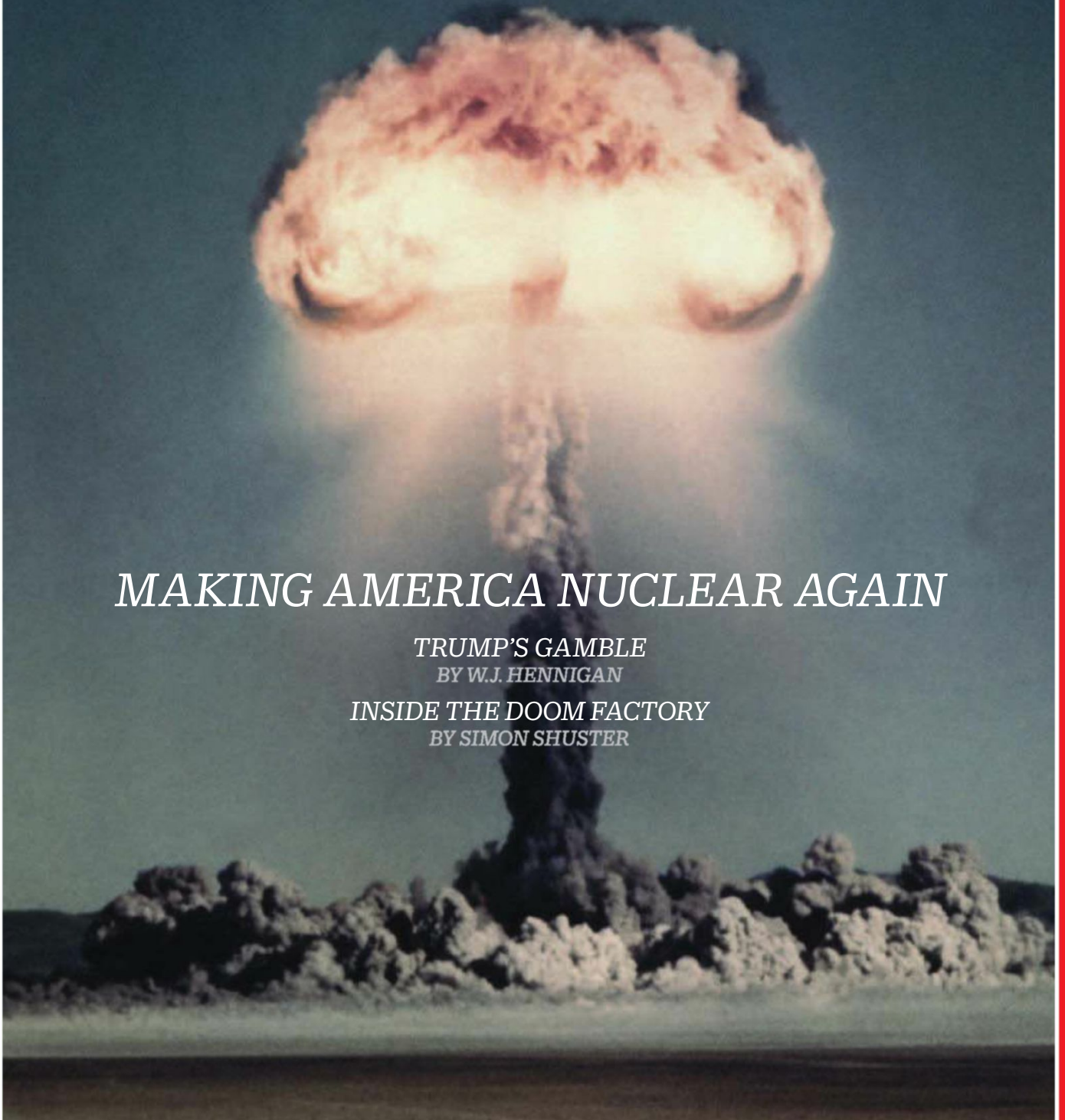


TIME

MAKING AMERICA NUCLEAR AGAIN

TRUMP'S GAMBLE
BY W.J. HENNIGAN

INSIDE THE DOOM FACTORY
BY SIMON SHUSTER



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Olympian Mikaela Shiffrin during the World Cup slalom in Flachau, Austria, on Jan. 9
Photograph by Johann Groder—AFP/Getty Images

ON THE COVER:
A 1952 nuclear detonation at the Nevada Proving Grounds, where testing has been suspended.
Photograph by Bettmann Archive/Getty Images



What you said about ...

AMERICA ALONE Readers took note of the juxtaposition of features in the Feb. 5 issue, which included coverage of the World Economic Forum's summit in Davos, Switzerland, as well as a photographic look at poverty in the U.S. Dale Kueter of Cedar Rapids, Iowa, concluded that the wealthy "don't give a rump about poverty, but take comfort on their own fat pocketbooks." But Sidney Crain of Sacramento instead saw the pictures of American poverty as representing "hollowed-out flyover states" that had been "ignored for decades" by Democratic politicians—and an illustration of why President Trump was seen by voters as "a beacon of hope" for the nation.

'The Davos articles convinced me that the majority of the world's leaders can guide us in a positive direction.'

PEGGY SKILES,
Big Spring, Texas

PINK WAVE Some readers quite literally took to the streets with Charlotte Alter's Jan. 29 cover story about the record number of U.S. women running for office: during the Dallas Women's March on Jan. 20, one demonstrator paraded an enlarged version of the cover image through the city. Other readers chimed in with further recommendations of female candidates to watch. Arnold A. McMahon of Arcadia, Calif., flagged Alison Hartson, who is challenging Senator Dianne Feinstein, and George Swindell of Greenwood, S.C., suggested Mary Geren, who is running to represent South Carolina's Third District in the U.S. House. And Helen

'They marched. Now, they're a force to be reckoned with.'

KIRSTEN GILLIBRAND,
U.S. Senator
(D., N.Y.)

Clare Grizzle of Martinsburg, W.V., who is rooting for four female Democrats running in West Virginia, hopes to see more stories such as this one. "Keep your covers provocative," she wrote.



Back in TIME

The Missile, Jan. 30, 1956

This week's feature on the new nuclear age (page 20) may summon déjà vu for readers who recall the Cold War, and some fears expressed in this 1956 TIME cover story are still felt today. The piece explored the chance of nukes getting into the wrong hands, as well as the chaos that could come with a false alarm like the one recently seen in Hawaii. Given a missile mistake, the story supposed, "there will be no time to check or debate, and the decision to fire 'in retaliation' will be made by some low-ranking officer. Retaliation may result in counter-retaliation, and in a few more minutes all the world's missiles may fly." Read the full story at time.com/vault

WEEKEND RECIPES Each week on TIME.com, nutritionist Teresa Cutter of the Healthy Chef shares a meal-prep idea to try in your time off. Find everything you need to make a range of tasty and healthy dishes, from kale, spinach and feta pie (pictured here) to gluten-free apple cake. See more at time.com/weekend-recipes



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SETTING THE RECORD STRAIGHT ▶ In Time Off (Feb. 5), the rapper Lil Uzi Vert was misidentified in a photo. The image was of Lil Yachty. In the Jan. 22 issue, "How to Tell a President 'You're Fired'" incorrectly characterized Section 4 of the 25th Amendment. Once the Vice President becomes acting President in an invocation of Section 4, he, not the incumbent President, remains in power if sustained by a majority of the Cabinet (or the designated "other such body") as the matter moves to its congressional phase.

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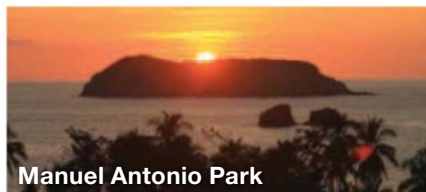
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—Client, Salinas, CA

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‘The rumor that I’m secretly creating a zombie apocalypse to generate demand for flamethrowers is completely false.’

ELON MUSK, Tesla co-founder, tweeting about an effort to raise money for his Boring Company through sales of branded flamethrowers; pre-sales have raised \$7.5 million

\$496,100

Value of the chocolate in two truck trailers that were stolen from an industrial park in southern Germany

46 tons

Combined weight of the Mardi Gras beads pulled from five blocks’ worth of New Orleans storm drains during a recent cleanup project



‘Everything seems absurd until we die, and then it makes sense.’

MAURIZIO CATTELAN, Italian sculptor, commenting on an offer by New York City’s Guggenheim Museum to loan his work America, a solid-gold toilet, to the White House

‘WOMEN HAVE BEEN STEPPING UP SINCE THE BEGINNING OF TIME.’

PINK, singer, responding to a statement in which Recording Academy president Neil Portnow argued that women would have to “step up” if they want to be nominated for more Grammy Awards

‘It is, of course, an unfriendly act.’

VLADIMIR PUTIN, Russian President, reacting to the U.S. Treasury’s release of a so-called oligarch list, naming more than 200 prominent Russians who could be affected by U.S. sanctions

11.1 billion

Estimated number of plastic items littering coral reefs across the Asia-Pacific region, according to a new study



Bananas
Scientists have developed a banana with an edible peel

GOOD WEEK
BAD WEEK

Apple
Feds are investigating whether its latest update intentionally slowed old iPhones

‘THE ONLY THING I HAVE IS MY SHORT GAME AND MY HEART.’

TIGER WOODS, golfer, after playing his best game on a PGA tour in three years, a two-under-par 70 at the Farmers Insurance Open

The Brief

'IF TRUMP STOPS SENDING TROOPS AND MONEY, THE AFGHAN GOVERNMENT WILL COLLAPSE.' —PAGE 12

STATE OF THE UNION

How Donald Trump is sowing distrust in American justice

By Massimo Calabresi

PRESIDENT TRUMP DELIVERED A fairly traditional mix of barbs and bromides during his 80-minute State of the Union address on Jan. 30, but one seemingly anodyne claim was actually pretty audacious. “For the last year,” Trump declared 22 minutes into the speech, “we have sought to restore the bonds of trust between our citizens and their government.”

In fact, Americans’ trust in their government has plunged during Trump’s first year in office, dropping 14 points to 33% in the Edelman Trust Barometer. And the President seems intent on undermining one part in particular: the justice system.

Since taking office, Trump has accused the Justice Department of criminally spying on him, the leadership of the FBI of political bias and the intelligence community of acting like Nazis. He charged one federal judge with “egregious overreach,” questioned the impartiality of another by calling him Mexican and has labeled various rulings “ridiculous” and the entire judicial system “messy.” Conservative legal scholar Jack Goldsmith calls Trump’s attacks a “gross violation” of the independence of U.S. law enforcement.

For context: in recent weeks,



▲
U.S. President Donald Trump delivers his first State of the Union address to a joint session of Congress

special counsel Robert Mueller has questioned roughly 50 of Trump’s current and former White House and campaign aides, including Attorney General Jeff Sessions, former FBI Director James Comey, former National Security

Adviser Michael Flynn, Trump’s son-in-law Jared Kushner and former chief of staff Reince Priebus. Trump himself may be interviewed soon—he told reporters he’d “love” to answer questions under oath.

As the investigation has edged closer to Trump, the efforts of his allies to discredit Mueller and the Justice Department have intensified. The hottest fight has taken place at a key congressional oversight committee, the House Permanent Select Committee on Intelligence. Republican chair Devin Nunes is the driving force behind a four-page memo containing classified information that Trump backers say illustrates the FBI's bias against Trump and criminal behavior in surveilling his campaign.

Democrats who have read the memo say it is a cherry-picked attempt to taint the investigation. Trump's Justice Department says releasing it would be "extraordinarily reckless," and the FBI expressed "grave concerns about material omissions" that "impact the memo's accuracy." After his State of the Union speech, Trump said he would release the memo, but even senior GOP figures are skeptical. "I have no confidence whatsoever in what's going to come out of the House," says George W. Bush's former Attorney General Alberto Gonzales. "Nunes seems to be part of the Trump team."

Not all accusations of political bias at the Justice Department are necessarily unfounded. The department's inspector general, Michael Horowitz, is probing potential bias there and at the FBI during the 2016 campaign. Horowitz is reportedly looking at whether then FBI Director Comey unfairly handled the probe of Hillary Clinton's use of a private email server while she was Secretary of State. On Jan. 30, the *Washington Post* reported that Horowitz has also been looking at why Deputy FBI Director Andrew McCabe waited three weeks to act on a request to examine Clinton emails found late in the presidential campaign. McCabe has been the target of repeated attacks by Trump and his allies. Colleagues from both parties defend him, but on Jan. 29, McCabe stepped down.

Attacks on the credibility of the Justice Department are not new. Bill Clinton's team hammered special counsel Kenneth Starr for alleged political bias during the Whitewater scandal. And Hillary Clinton's allies suggested that right-wing agents at the FBI were behind the request to inspect the batch of emails that Horowitz is now investigating.

But the climate of distrust, stoked most aggressively by Trump and his allies, is worrying. The FBI arrests more than 155,000 people each year. With court approval, investigators monitor suspects, search their homes and otherwise snoop into their private lives if they suspect them of crimes. Few things are more important to the state of the union than bolstering Americans' faith that their laws will be objectively and impartially enforced. —*With reporting by NASH JENKINS/WASHINGTON* □



TICKER

CDC head quits amid controversy

The Trump Administration's appointee to head the Centers for Disease Control and Prevention, Brenda Fitzgerald, resigned on Jan. 31 following a report that she had bought stock in a tobacco company shortly after joining the CDC, which oversees government efforts to curb smoking.

Ireland to vote on abortion laws

Ireland will hold a vote this summer on liberalizing its strict abortion laws. Voters in a constitutional referendum will decide whether to relax restrictions, potentially allowing women to end pregnancies at up to 12 weeks.

Feds drop charges against Menendez

The Justice Department said it will not retry Senator Robert Menendez on charges of bribery, fraud and conspiracy, after a first trial ended in a hung jury last year. The New Jersey Democrat denied charges of accepting gifts and donations in exchange for political influence.

New dinosaur found in Egypt

A species of dinosaur discovered in an Egyptian desert has shed new light on beasts that roamed Africa in the Cretaceous period. The 80 million-year-old herbivore was 33 ft. long and weighed up to 5.5 tons.



WORLD

Is Poland rewriting its WW II history?

Polish lawmakers passed a bill on Jan. 26 making it an offense to blame Poland or Poles for Nazi atrocities committed on Polish soil during World War II. Here's more. —*Tara John*

DEATH CAMPS

Under the proposal, offenders could face jail sentences of up to three years. The stiffest penalties are reserved for those who use the term *Polish death camps* to refer to Nazi concentration camps. The bill, passed on the eve of International Holocaust Remembrance Day, was condemned by Israeli politicians as a form of Holocaust denial.

THE HISTORY

At least 3 million Polish Jews were killed during World War II, and some Poles were complicit. The Nazis recruited local collaborators to round up Jews for the camps.

RIGHTWARD MARCH

The bill comes as the ruling right-wing Law and Justice Party is accused of pandering to the nationalistic far right. Critics say the bill could restrict Holocaust research and discussion. The government denies the bill was intended to limit free expression or rewrite history.

DIGITS



\$23.7 million

Cost of new refrigerators needed for Air Force One. The high price tag on the new "chillers" is "the result of bespoke equipment requirements put in place by the White House Military Office and the Air Force," according to military news site Defense One

DATA

SKILLED STATES

Switzerland is the best place in the world when it comes to fostering and attracting talent, according to a global talent-competitiveness index compiled by INSEAD business school. Here's how a selection of other nations ranked:



1. Switzerland

3. U.S.

15. Iceland

24. France

54. China

81. Brazil

92. India

118. Madagascar



APRÈS MOI, LE DÉLUGE The swollen River Seine in Paris peaked at 19.2 ft., more than 13 ft. above its normal level, on Jan. 29, after France's heaviest rains in half a century. The engorged river and its tributaries have swallowed up romantic quays, forced 1,500 people to evacuate their homes in Paris, caused commuter chaos and led to the closure of part of the Louvre museum. *Photograph by Jerome Sessini—Magnum Photos*

DIPLOMACY

The continuing search for a solution to Syria

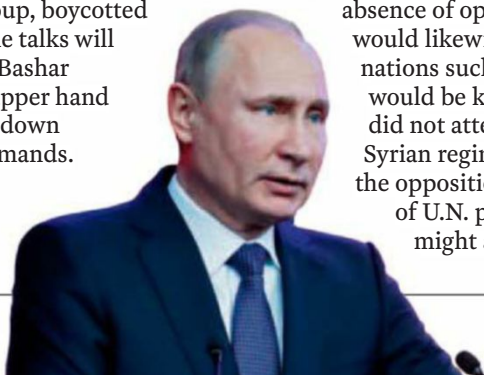
SYRIAN, IRANIAN AND TURKISH DELEGATES arrived in the southern Russian city of Sochi on Jan. 30 for a two-day peace conference on bringing the Syrian war to a close, but behind-the-scenes conflict has left experts with low expectations for the Russian-sponsored talks.

NO SHOW Moscow, an ally to the Syrian government, invited 1,600 delegates to Sochi in a bid to create a road map for ending the war. But the Syrian Negotiation Commission, the country's main opposition group, boycotted the event. They argued that the talks will only benefit Syria's President Bashar Assad, who has regained the upper hand and appears unwilling to step down despite opposition groups' demands.

NEW FIGHT Complicating matters is Turkey's creation of another front in the multi-sided, nearly seven-year conflict. Ankara considers Kurdish militias a security threat and on Jan. 20 began an offensive on Afrin, a Kurdish enclave in northwestern Syria. As a result, the Kurds—who control about 25% of Syrian territory and are the main U.S. ally against ISIS—also declined to attend.

NO CHANGE A leaked draft of the final statement of the talks calls for the lifting of unilateral sanctions on Syria and for additional Western aid in the region's reconstruction. But, just as the summit's credibility had been hurt by the absence of opposition groups, that plan would likewise be compromised. Western nations such as the U.S. and France, who would be key to its implementation, did not attend because they believe the Syrian regime is refusing to engage with the opposition. Like the nine rounds of U.N. peace talks before it, Sochi might also be in vain. —TARA JOHN

The Sochi talks were called for by Russian President Vladimir Putin





TICKER

Troubled worker sent Hawaii alert

An investigation revealed Hawaii's false emergency alerts that warned of an incoming missile threat were sent by a troubled employee, and not by accident as state officials initially said. A state investigation revealed that a worker with a history of confusing drills with real life sent the alert.

Headscarf protests in Iran

Iranian women have been removing their headscarves in public to protest a law that forces women to cover their heads in public places. Images on social media show women waving sticks with headscarves hanging from the end.

Tourists face jail for raunchy dancing

Ten tourists are facing jail time after dancing in a "pornographic mode" near a Cambodian temple. Police raided a rented villa close to the religious site, arresting 77 tourists. The 10 people charged face up to a year in prison and fines of roughly \$500 per person.

Americans getting more shut-eye

New research has found that Americans are sleeping more, clocking an average of 18 minutes more per weeknight than in 2003. The average American now gets at least eight hours of sleep on weeknights.

THE RISK REPORT

Can Donald Trump accept a defeat in Afghanistan?

By Ian Bremmer

THE TALIBAN AND ISIS KILLED AT LEAST 140 people in January in a wave of attacks inside Kabul, Afghanistan's capital. It's a reminder that this 16-year war, the longest in U.S. history, rages on. At least 30,000 Afghan civilians and more than 2,200 U.S. soldiers have died. As attacks mount, it's time to take a longer look at the U.S. goals in Afghanistan.

President Trump has tried to show positive results. He has deferred to his generals on how best to achieve strategic goals and put thousands of additional troops on the ground. Afghanistan has a reasonably strong government in Kabul under the leadership of President Ashraf Ghani.

It hasn't helped. The Trump Administration has at the same time shifted support away from Pakistan in favor of closer relations with India. U.S. aid to Pakistan has been suspended, giving its military and security services fewer reasons to accept sacrifice and risks to help U.S.-led troops in Afghanistan. Pakistan may even have provoked recent attacks; an Afghan diplomat claimed that Pakistan's intelligence agency, the ISI, had trained one of the Taliban militants who killed 40 people in a hotel attack on Jan. 20.

Everyone in the region knows that the U.S. cannot stay forever. There are now about 14,000 U.S. troops in Afghanistan, compared with 100,000 in 2011. At some point, the last

Americans will go home, just as the Soviets marched out in 1989, and Afghanistan will again be an arena in which Pakistan, India and Iran jostle for position.

George W. Bush's rationale for starting the war in 2001 was clear: the Taliban, then in charge in Kabul, refused to surrender Osama bin Laden, who had just ordered the murder of thousands of Americans on U.S. soil. Today's question for Trump is equally clear: How can this war be won? Presidents Bush and Obama were never able to answer that question.

The question for Trump is clear: How can this war be won? Bush and Obama were never able to answer

A second question for Trump: What does "America first" mean for U.S. policy in Afghanistan? Do American taxpayers care about what happens there? Both parties in Congress have supported efforts to help the Afghan government control enough

territory to ensure that terrorists find no new safe haven from which to attack Western targets. But that government still lacks the resources and the country still lacks the infrastructure needed to achieve that goal. The result is a violent, expensive stalemate. If Trump stops sending troops and money, the Afghan government will collapse. If the troops and dollars continue to flow, Washington will be paying to extend the stalemate.

Can Donald Trump accept a defeat, even one he can blame on his predecessors? And how long will it take him to decide? □

WEDDINGS

Weird places to get hitched

In January, a New Jersey couple exchanged vows in the courthouse bathroom after the groom's mother became ill and was forced to wait there for paramedics. Here, other odd wedding locations. —*Flora Carr*

SUBWAY STATION

In December, 21 couples took part in a group wedding ceremony at a subway station in Wuhan, the capital of central China's Hubei province. All couples had been involved in the construction of the subway.

UNDERWATER

A couple who met on dating website Plenty of Fish hired a tank at an aquarium in Manchester, England, and said their marriage vows underwater in July. Their six bridesmaids all dressed as mermaids.



TACO BELL

In June, Dan Ryckert and Bianca Monda became the first people to get married at Taco Bell's Las Vegas Cantina location. The couple won an all-expenses-paid wedding after entering the chain's Love & Tacos contest.

Milestones

DIED

Mort Walker, the veteran comic-strip artist who delighted millions of readers with the antics of lazy Army Private Beetle Bailey, at 94.

> Actor **Olivia Cole**, who won an Emmy for her role in the 1977 hit miniseries *Roots*, at 75.

RESIGNED

FBI Deputy Director **Andrew McCabe**, following months of criticism by President Trump, and amid an investigation into his role in the Hillary Clinton email probe.

RETIRED

The **Chief Wahoo logo** from the Cleveland Indians' uniform, starting in 2019. Critics say the depiction of Native Americans is racially insensitive.

GIVEN UP

Three Michelin stars by French chef Sébastien Bras, for his restaurant Le Suquet. He surrendered the rating citing the pressure of inspections.

RESUMED

The **admission of refugees** from 11 "high risk" countries to the U.S., but with added security measures, including more in-depth interviews.



Kamprad opened the first Ikea furniture store in Sweden in 1958; today there are more than 400 stores in 49 countries

DIED

Ingvar Kamprad Founder of Ikea

By **Tony Chambers**

EVEN THE MOST ELITIST DESIGN SNOBS (YES, THAT'S me) have to admit that Ingvar Kamprad, who died on Jan. 27 at the age of 91, did more to change the look of homes across the globe than any other retailer.

The pioneer of flat-pack furniture put simplicity and affordability at the core of his business. With Ikea stores worldwide, his vision encapsulated the Bauhaus dream of making good design available for all. He democratized interior design and exported the modernist Scandinavian aesthetic around the globe.

Those picture-based assembly instructions were another genius design innovation; clear and succinct while overcoming language barriers, they were a precursor of the dominance of visual communication so prevalent today. Perhaps the best measure of Ingvar's societal impact, however, is the oft quoted statistic that 10% of Europeans were conceived in an Ikea bed.

Chambers is the brand and content director for *Wallpaper**

THE CEO REPORT

The view from Davos was unusually sunny

By **Alan Murray**

I'VE BEEN ATTENDING THE WORLD Economic Forum in Davos for more than two decades, and I can't recall another time when the meeting ended with attendees who were so optimistic about the economic outlook. Their reasons:

The global economy is enjoying unusual synchronicity, with every major region expanding at the same time. With unemployment low and inflation dormant, we face the possibility of several years of "high pressure" growth, in which wages and other rewards to workers will rise, after a decade of anemia. The unusual bonuses paid by some companies to workers in the wake of the U.S. tax bill are partly an acknowledgment of that trend.

Trump's hard-line "America first" trade agenda was retrofitted at Davos into a more reasonable "America first, but not America alone." It remains to be seen what that means in practice, but the cooler rhetoric has reduced fears of a trade fiasco.

The rapid advance of technology—and, in particular, the increasing ability to take proliferating pools of digital data and turn them into useful intelligence—carries the promise of a sea change in business productivity as well as potential solutions to a host of difficult social problems. U.K. Chancellor of the Exchequer Philip Hammond said AI could "double economic growth rates in advanced economies by 2035."

None of that is to minimize the geopolitical threats facing the world. Nor is it to ignore the huge challenge of preparing the global workforce for the new-technology world.

Still, it's worth savoring the moment. All may not be right with the world. But all is not wrong. Indeed, the main negative economic sentiment heard at Davos was that with all the good news, complacency may set in. As Larry Summers recently wrote, "The main thing we have to fear is lack of fear itself." □



Federer hits a return against Marin Cilic at the Australian Open final in Melbourne on Jan. 28, which Federer won for his 20th career major.
Photograph by William West—AFP/Getty Images



SPORTS

Roger Federer's renaissance lives on

ROGER FEDERER COULDN'T control his tears. And who, really, could blame him? The Swiss star had just defeated Marin Cilic in five sets at the Australian Open on Jan. 28 to become the first man in history to win 20 Grand Slam singles titles. Now, as he stood in Melbourne cradling the championship trophy, Federer, 36, started thinking about the fans showering him with cheers, the volunteers who make these tennis carnivals happen and his wife Mirka, who encouraged him to keep playing after he offered to put aside his racket to help raise their two sets of young twins. Federer could have walked away years ago, his reputation secure. But he kept at it, defying age and injury, and now he can't seem to stop winning majors. The victory in Melbourne was his second Australian Open in a row and third Slam in 12 months. Caroline Wozniacki defeated Simona Halep to win the women's title—her first Slam title in 43 attempts.

Federer can't quite believe he's pulling all this off at an age when most champions are ensconced in a broadcast booth or cashing checks on the master's circuit. It's even rarer to see an icon openly expressing how we'd all imagine we'd feel after reaching our most ambitious goals. The moment humbled the greatest men's player a sport has ever seen.

Only Serena Williams, Steffi Graf and Margaret Court have won more than 20 majors. The key to Federer's joyful late-career renaissance: perspective. No longer chasing every tournament victory, he's figured out what he wants—the big titles, and life balance—and how to get it. “The fairy tale,” Federer said after the Aussie, “continues.” —SEAN GREGORY

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The View

'WHAT WAS THE BEST WAY TO MARK THE MOM'S BIRTHDAY, THE ANNIVERSARY OF HER DEATH OR MOTHER'S DAY?' —PAGE 19

BUSINESS

Amazon (and friends) takes on a new industry: health care

By Karl Vick

WHAT HAPPENS WHEN A company defined by utterly ruthless efficiency sets its sights on the flabbiest part of the U.S. economy? We shall see, now that Amazon has announced that it—along with Warren Buffett's Berkshire Hathaway and the banking behemoth JPMorgan Chase—will be entering the dominion of health care.

"The three of our companies have extraordinary resources, and our goal is to create solutions that benefit our U.S. employees, their families and, potentially, all Americans," said JPMorgan chairman Jamie Dimon on Jan. 30, treading lightly ("potentially") on the enormous implications ("all Americans") that were apparent. As it takes shape, the as-yet-unnamed joint enterprise will nominally serve, without seeking profit, only the 1.2 million people who work for the three companies.

But the clear and worthy goal is to confront the Gorgon that has stymied politicians for decades.

The triumvirate combines the savvy integrity of the Oracle of Omaha, as America's most admired investor is known; the leadership status and financial muscle of the country's largest bank; and, crucially, Amazon. The retail and tech giant has flourished by innovating



relentlessly and expanding omnivorously. Word that Amazon was entering health care immediately depressed the value of old-school health-insurance companies. Anyone who has been

a customer of either knows why.

The U.S. health care system is the antithesis of Silicon Valley. Grossly inefficient and user-unfriendly, it may be the least transparent enterprise outside

the Kremlin—and just as awash in money. The \$3.3 trillion that Americans spent on health care in 2016 was close to Germany’s entire GDP that year. It accounted for an astounding 18% of the U.S. gross domestic product—twice the share other developed countries typically spend on health—and produced a return on investment that would get any CEO fired. Life expectancy in the U.S. is actually going down.

“The ballooning costs of health care act as a hungry tapeworm on the American economy” is how Buffett put it in the six-paragraph news release that offered no blueprint but what Amazon founder Jeff Bezos called “talented experts, a beginner’s mind and a long-term orientation.”

You can see where this is going. Shop for a piece of furniture online and the seller explains why it can offer a quality sofa at a reasonable price by listing the half-dozen middlemen it’s cutting out: retail warehouse, retail store, wholesaler warehouse, wholesaler showroom, export agent. It may not be possible to list the intermediaries milling about between a patient and a healer, but David Cutler, a health economist at Harvard, made the striking calculation that administration accounts for about a quarter of the cost of health care in the U.S.—perhaps double the rate in the next-most-benighted system. He once pointed out that Duke University Hospital had 900 beds and 1,300 billing clerks.

None of this qualifies as news. What does is the prospect of a new sensibility addressing the mess. Bezos became the richest man in the world in no small part by exploiting and inventing technology, like “one click.” His approach is to undercut the competition at every turn—cutting prices so low that customers were reliably pleased, and vendors had no choice but to stock his shelves. Many of the company’s half-million employees work among those shelves, at the “fulfillment centers” all across the U.S. where boxes are packed and shipped. A warehouse worker might make \$15 an hour, better than retail but not enough to make anyone rich, especially after taxes and health-insurance premiums, which have been rising faster than wages.

If the triad of Amazon, Berkshire Hathaway and JPMorgan Chase can find a way to bring sense to health care, the savings will accrue first for those three companies, which are not acting out of altruism. But sometimes business interests align with human ones. Every dollar matters to an hourly worker, and when the savings from a better health care system reach the worker—and when the worker reaches a doctor without having to run a gauntlet—the vaunted, disruptive efficiency of tech will have produced a common good. □

DIGITS

20,827,260

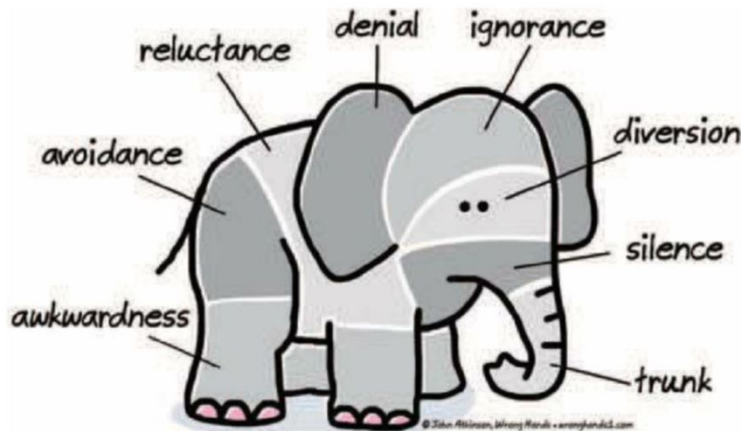
Number of prescription painkiller pills sent to two pharmacies in a West Virginia town of about 3,000 people by out-of-state drug companies from 2006 to 2016, according to the Committee on Energy and Commerce in the U.S. House of Representatives




STUDY
Can luxury affect our desire for romance?

THE RELATIONSHIP BETWEEN LOVE and money just got even rockier. Psychologists at Swansea University in the U.K. showed 75 men and 76 women pictures of 50 potential love interests and asked if they’d be interested in a long, short or nonexistent relationship with each person. The researchers then showed some of them images of fancy cars, jewelry, big houses or actual cash to see if that affected how they felt about dating. It did. After the viewers had seen those images, they were shown the photos of the opposite sex again. Compared with the group that was not shown any luxury images, these participants had a higher preference for short-term flings—choosing 16% more such partners. But those looking for something more serious should fear not: the effect works both ways. After the participants saw images of dangerous animals and videos of children, both men and women opted for more long-term love. —BELINDA LUSCOMBE

CHARTOON
Parts of the elephant in the room



JOHN ATKINSON, WRONG HANDS



PARENTING

How seven widowed fathers overcame self-doubt

By **Donald L. Rosenstein** and **Justin M. Yopp**

AFTER THE DEATH OF HIS WIFE DEANNA, Neill asked himself a terrible question: Had the wrong parent died? Deanna had been the family's nerve center; when he traveled for business, she managed the children. Now the responsibility of raising their four children fell entirely to him. At each perceived parenting misstep, Neill reaffirmed the answer to his question. Yes, the wrong parent died, he told a support group for widowed fathers.

Each of the seven men in the group was mourning his wife while contending with one disorienting parenting dilemma after another. How should they respond when their children refused to talk about their mother? Did the usual household rules and expectations apply, or should they cut their kids some slack? What was the best way to mark the mom's birthday, the anniversary of her death or Mother's Day?

Each year, thousands of parents of young children die. For decades, we've known that a bereaved child's psychological adjustment is related to the surviving parent's ability to adapt—yet there are precious few resources for these parents. When we formed that support group for Neill and the other dads, we could not find a similar group in the country.

As the group continued to meet, the

question of whether the wrong parent had died morphed into something even more basic: Am I a good enough father?

In response, we introduced the dads to a piece of decades-old advice that too few widowers hear. In 1953, the British psychoanalyst Donald Winnicott introduced the wonderfully forgiving notion of the "good enough" mother. Winnicott's central idea was that perfect parenting was neither possible nor desirable. While nothing can make up for the loss of a mother or father, what our children need most is love, connectedness, structure and a parent who is present and in the game with them.

The dads shared stories about their failures, fears and insecurities. They recounted seemingly impossible conversations with their children about how the mom had died and why in some cases they didn't get a chance to say goodbye. Over the course of the nearly four years that these men met, they encouraged one another and healed together. Gradually, they righted themselves.

*Rosenstein is a psychiatrist, and Yopp is a psychologist; they started widowedparent.org and are co-authors of *The Group: Seven Widowed Fathers Reimagine Life**

QUICK TALK

David Cay Johnston

The Pulitzer Prize-winning reporter has written a new book, *It's Even Worse Than You Think: What the Trump Administration Is Doing to America*.

Have you interacted with President Trump since you started this book? The last time Donald and I spoke was in April 2016, during the campaign. He called me at home to do what he's done many times: threaten to sue me. He's been threatening to sue me since 1989. He never has. He never will.

You know him pretty well. What surprised you the most in your research and reporting for this book? Nothing. Seriously. There's plenty of videotape of me out there saying what he was going to do. What I did not expect was that the Republican leadership in Congress would just lose their moral compass. [They're making] these totally anti-democratic expressions of fealty to the great leader, like at the Cabinet meetings.

Do you think the palace intrigue in *Fire and Fury* and in news reports distracts from the severity of what's going on? Yes, I read it all. I would be reading it if I weren't doing this stuff, but that book is not about what Trump's doing to you. I'm not a politics person, I'm a policy guy.

—Sarah Begley

THE NEW



THESE SAUCER-SHAPED CRATERS IN NYE COUNTY, NEVADA, ARE THE RESULT OF MORE THAN 1,000 UNDERGROUND NUCLEAR TESTS PERFORMED BY THE PENTAGON DURING THE COLD WAR



NUCLEAR POKER

MORE PLAYERS. LOOSER RULES. EVERYTHING AT STAKE **BY W.J. HENNIGAN**

AT A VAST TRACT OF UNINHABITED DESERT IN southern Nevada, hundreds of moonlike craters dimple the wasteland, remnants of Cold War nuclear explosions that melted the bedrock and fused the sand to ensure that America could take part in the unthinkable: global thermonuclear war. The crowds of scientists and generals are long gone—the U.S. hasn't tested a nuke since 1992, when then President George H.W. Bush declared a self-imposed testing moratorium. But the Nevada National Security test site is not completely abandoned. A skeleton crew of custodians oversees the long dormant facility, less than 90 miles northwest of Las Vegas, standing by to turn the lights back on if the day ever comes.

It may come sooner than many thought.

Since 1993, the Department of Energy has had to be ready to conduct a nuclear test within two to three years if ordered by the President. Late last year, the Trump Administration ordered the department to be ready, for the first time, to conduct a short-notice nuclear test in as little as six months.

That is not enough time to install the warhead in shafts as deep as 4,000 ft. and affix all the proper technical instrumentation and diagnostics equipment. But the purpose of such a detonation, which the Administration labels “a simple test, with waivers and simplified processes,” would not be to ensure that the nation's most powerful weapons were in operational order, or to check whether a new type of warhead worked, a *TIME* review of nuclear-policy documents has found. Rather, a National Nuclear Security Administration official tells *TIME*, such a test would be “conducted for political purposes.”

The point, this and other sources say, would be to show Russia's Vladimir Putin, North Korea's Kim Jong Un, Iran's Ayatullah Ali Khamenei and other adversaries what they are up against.

President Trump has not ordered such a test, but even the consideration of a show of force—by the nation that announced the atomic age by dropping nuclear weapons on Japanese cities in August

1945—marks a provocative shift from the sober, almost mournful restraint that has characterized the U.S. posture toward the weapons for decades. To prevent nuclear war and the spread of weapons to non-nuclear states, the strategy of Republican and Democratic Commanders in Chief alike has been to reduce nuclear arsenals and forge new arms-control agreements.

The Trump Administration, by contrast, is convinced that the best way to limit the spreading nuclear danger is to expand and advertise its ability to annihilate its enemies. In addition to putting the Nevada testing ground on notice, he has signed off on a \$1.2 trillion plan to overhaul the entire nuclear-weapons complex. Trump has authorized a new nuclear warhead, the first in 34 years. He is funding research and development on a mobile medium-range missile. The new weapon, if tested or deployed, would be prohibited by a 30-year-old Cold War nuclear-forces agreement with Russia (which has already violated the agreement). And for the first time, the U.S. is expanding the scenarios under which the President would consider going nuclear to “significant non-nuclear strategic attacks,” including major cyberattacks.

“We must modernize and rebuild our nuclear arsenal, hopefully never having to use it, but making it so strong and powerful that it will deter any acts of aggression,” Trump said on Jan. 30 during his State of the Union address. “Perhaps someday in the future there will be a magical moment when the countries of the world will get together to eliminate their nuclear weapons. Unfortunately, we are not there yet.”

The rapid strategic changes have been matched by Trump’s norm-breaking rhetoric. Previously, every U.S. Administration since Dwight D. Eisenhower’s had avoided referring to the prospect of launching nuclear war and explicitly maintained, advanced or defended treaties designed to limit the spread of nuclear arms. Trump has openly threatened to unleash “fire and fury like the world has never seen,” and has been hostile toward international agreements. He reportedly called for more, not fewer, nuclear weapons in a July 20 Pentagon briefing, where military advisers were upbraided for presenting global reductions in nuclear stockpiles as progress.

Trump has criticized New START, which reduces and limits nuclear arms in the U.S. and Russia, as a bad deal. He has repeatedly questioned the multilateral deal under which Iran suspended its nuclear program, and promised to decertify it in May if changes aren’t made. He has publicly undermined Secretary of State Rex Tillerson’s diplomatic talks aimed at denuclearizing the Korean Peninsula, instead warning North Korea about his “much bigger & more powerful” nuclear button. “The long-standing strategic policy of the United States has been to reduce the role and number of nuclear weapons,” says Andrew Weber, who spent 30 years on nuclear-weapons issues in the State and Defense departments before retiring in 2015. “That idea seems to have been balled up and thrown out the window.”

The Trump team says it is responding to bad policy by past Administrations that left the U.S. vulnerable as other countries broke their word, and non-nuclear countries decided to pursue the weapons. “The President hates bad deals,” one senior Administration official tells TIME. “There’s a view of arms control as an intrinsic good, per se. Any agreement is a good agreement. That’s not where we are.” Aggressively responding to violations of treaties, launching new nuclear-weapons programs and reminding the world about the power of the U.S. nuclear arsenal, officials say, is the best way to deter others from expanding, or seeking, arsenals.

Foreign nations have issued dire warnings in response. China’s Ministry of National Defense in January urged the Trump government to abandon a “Cold War” mind-set, and view matters more “rationally and objectively.” Russian President Vladimir Putin in December accused the U.S. of violating a landmark Cold War-era nuclear arms deal and carrying out an aggressive military policy that “seriously affects security in Europe and in the whole world.” Both China and Russia are upgrading their nuclear weapons. Other nuclear powers, such as North Korea, Pakistan, India and Israel, continue to build new systems.

Rather than dissuading such efforts, arms-control experts from both political parties say, Trump’s moves will accelerate them. A new nuclear-arms race would not be limited to two superpowers seeking strategic balance in a Cold War but

A NEW GLOBAL ARMS RACE

Around the world, new and established nuclear powers are modernizing their arsenals. Here’s who’s building what:

NEW DELIVERY SYSTEMS



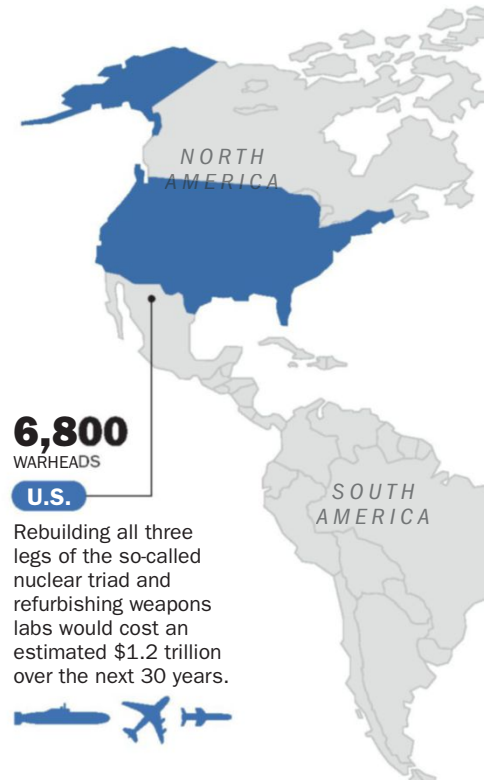
Submarine



Aircraft



Missile



SOURCES: FEDERATION OF AMERICAN SCIENTISTS; SIPRI

would include many nations, including foes in regions where hot wars are a regular occurrence.

“The new arms race has already begun,” says former Defense Secretary William Perry. “It’s different in nature than the one during the Cold War, which focused on quantity and two superpowers producing absurd numbers of weapons. Today it is focused on quality and involves several nations instead of just two. The risk for nuclear conflict today is higher than it was during the Cold War.”

THE TRUMP ADMINISTRATION is planning to take a step toward developing a new generation of nuclear weapons this

215
WARHEADS

U.K.

Building a fleet of Dreadnought-class submarines armed with nuclear-tipped Trident II D5 ballistic missiles. Expected to be operational by the 2030s.



140
WARHEADS

PAKISTAN

Nuclear stockpile expected to increase over the next decade. Government has prioritized development of cruise- and ballistic-missile capability.



7,000
WARHEADS

RUSSIA

Overhaul of nuclear forces includes new submarines and modernized bombers, along with new road-mobile and heavy ICBMs.



15
WARHEADS

NORTH KOREA

Developed short- and medium-range missiles, and launched first ICBM in July. Has yet to prove sea-launched capability, guidance systems or re-entry vehicle.



270
WARHEADS

CHINA

Expected to deploy a new road-mobile ICBM this year. Rolling out new subs and upgrading aircraft to carry missiles, possibly nuclear-capable.



300
WARHEADS

FRANCE

Updating the Triomphant-class submarines to carry the M51 missile, which has enhanced range and accuracy.



80
WARHEADS

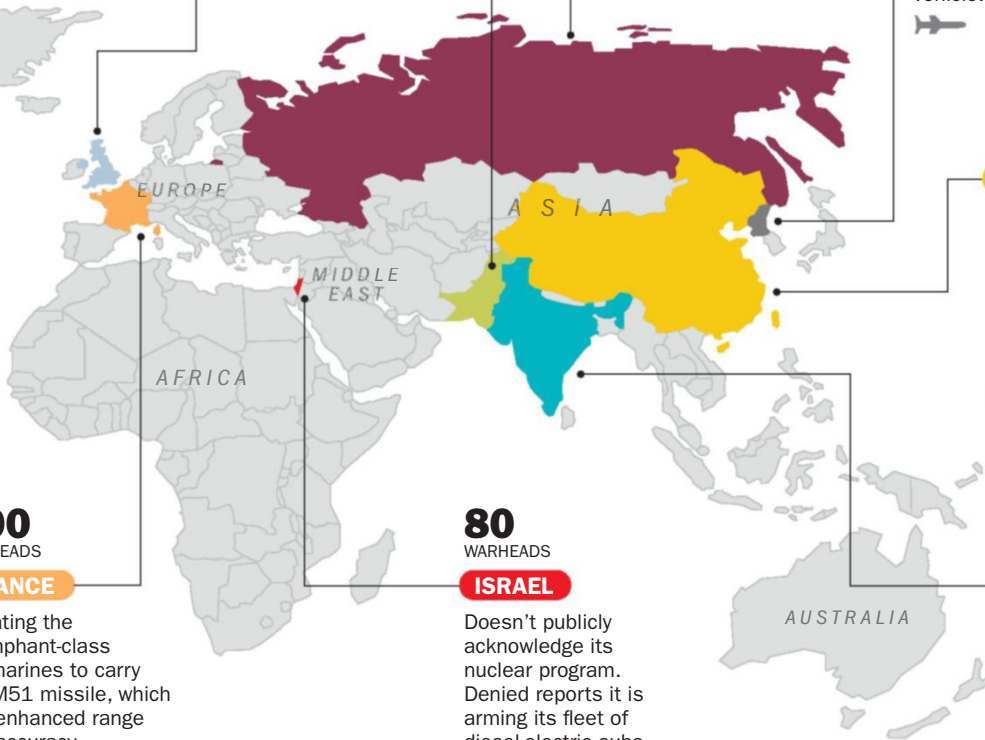
ISRAEL

Doesn't publicly acknowledge its nuclear program. Denied reports it is arming its fleet of diesel-electric subs with nuclear missiles.

130
WARHEADS

INDIA

Developing an airborne supersonic cruise missile. First nuclear submarine became operational in 2016.



month in its Nuclear Posture Review, a strategy document for the U.S. nuclear arsenal. Since the end of the Cold War, the U.S. has not designed any new nuclear weapons as it and Russia have worked to scale back their strategic arsenals. A draft proposal of the 64-page document, published in January by the Huffington Post, included two new sea-launched weapons, one outfitted with a small atomic warhead for battlefield use.

The new warhead, known as a tactical nuclear weapon, would be delivered by a submarine-launched missile against an advancing army. It differs from a strategic weapon, which is designed to destroy cities and hardened military targets. America

needs battlefield nukes, the Trump team says, to match and deter adversaries' tactical arsenals. In an escalating fight with Russia or China, the U.S. military could engage in a "limited nuclear war" rather than leveling whole cities with strategic weapons. Air Force General Paul Selva, vice chairman of the Joint Chiefs of Staff, tells TIME the President needs options. Trump and his successors should not face a choice between killing millions of civilians or backing down, he says. "It makes people uncomfortable to hear about nuclear war—fighting and presenting options to the President, whomever that person might be," Selva says. "Strategic stability in the world between our nuclear com-

petitors and our nuclear peers has been assumed. It is not a birthright."

Trump's new plan also expands the President's "first use" of nuclear weapons to circumstances that include "non-nuclear strategic attacks" against the U.S. or its allies. That could mean cyberattacks on nuclear command and control systems or civilian infrastructure, like the electricity grid or air-traffic-control system, arms-control experts have concluded. Previous Administrations limited the threat of a nuclear response to mass-casualty events, like chemical- and biological-weapon attacks. Stephen Schwartz, a nuclear weapons policy expert, said the key concern is the expansion of the nuclear umbrella to

“include these new and not extreme possibilities, thus dramatically lowering the threshold for nuclear use.”

The Trump plan also takes a new, skeptical approach to nuclear arms-control agreements. In the 2018 Pentagon budget, Trump included funding for the development of a new missile. If tested or deployed, the missile would violate a 30-year-old arms-control pact with Russia, the Intermediate-Range Nuclear Forces (INF) Treaty. Unlike his predecessors, Trump is directly confronting Russia’s prior violation of the treaty, says David Trachtenberg, Defense Undersecretary for Policy, who helped oversee the new plan. “The world is not as benign as some hoped it would be,” he says.

TRUMP’S NUCLEAR MOVES, rolled out in policy papers and secret briefings over the past year, have garnered responses abroad ranging from quiet concern to outrage.

On Nov. 8, nearly five weeks before Trump approved research on the new missile, Secretary of Defense James Mattis assembled the defense ministers of the member-countries of the North Atlantic Treaty Organization, the 29-nation alliance that contained and defeated the Soviet Union in the Cold War. Convened inside a secure conference room under NATO’s highest security classification, known ominously as “Cosmic Top Secret,” the Mattis briefing laid out the American intelligence case indicating Russia’s violation of the INF treaty.

U.S. intelligence agencies had captured overhead imagery and additional information that Moscow had for years been testing a treaty-violating cruise missile at the Kapustin Yar rocket-launch test site in western Russia, Pentagon sources tell TIME. Now the missile had been deployed with two different Russian military units, putting European capitals at risk. The weapon was derisively nicknamed the SSC-8 “Screwdriver” by NATO analysts because “Russia used it to screw us,” say former U.S. officials.

The Russian cruise missile that violated the treaty could be launched without giving allies much advance time to determine what was coming their way. Leaders would have to quickly discern the blip on their radar screens and decide whether to respond in kind. The INF agreement, signed by President Ronald Reagan and



Soviet Union leader Mikhail Gorbachev in December 1987, was the only nuclear arms-control agreement to eliminate a class of nuclear weapons. It forced the superpowers to scrap more than 2,600 missiles with ranges of about 310 to 3,420 miles—weapons considered destabilizing to Europe because they could deliver a nuclear strike in less than 10 minutes.

But if Europeans were concerned about Russia’s violation of the accord, they feared that the Trump Administration’s response would distract from it, said Kingston Reif, director for disarmament and threat reduction policy at the Arms Control Association. The last thing Europeans want is Moscow and Washington launching a new arms race in Europe. “There is no indication that NATO supports a new [missile], and attempting to force it upon the alliance would be incredibly divisive,” Reif says. “It is thus a weapon to nowhere.” Three days after Trump signed the defense bill, NATO issued a statement touting the INF treaty as “crucial to Euro-Atlantic security” and reiterated that “full compliance” was essential. NATO also called on Russia “to address these concerns in a substantial and transparent way.”

Arguments over U.S.-Russia nuclear deployments are not new. Strategists have long disagreed about whether to counter Moscow’s nuclear threat with escalation or restraint. It’s a high-stakes game of nuclear poker. The Trump Administration,

in its aggressive approach, is betting on coercion. “We have to have this strong stance in order to get Russia to return to the negotiating table,” says Laura Cooper, a top Pentagon Russia expert. “But we are not throwing out the treaties that have served us so well in the past decades.”

If they can’t fix INF, officials tell TIME, the Trump Administration is not willing to engage on future arms agreements with Russia. That’s a particular problem, because New START, a linchpin arms-control agreement, will expire in three years. The 2010 deal limits each side to 1,550 deployed nuclear warheads. If it sunsets, it will be the first time the effort to limit the strategic stockpiles in the U.S. and Russia has lapsed since 1991.

Former U.S. Senators Sam Nunn and Richard Lugar, whose bipartisan partnership was crucial to gaining ratification of nuclear-weapons treaties in the chaotic years following the Cold War, fear an end to arms control altogether. “We have severe erosion,” Nunn says. “We are going into a period of much greater risk in the nuclear arena.” Says Lugar: “The trend has been moving away from these sorts of international agreements, which is deeply troubling—and frankly dangerous.”

At the same time, the U.S. and Russia are accelerating their spending on nuclear forces. The current U.S. plan would require spending \$1.2 trillion to modernize the aging U.S. “nuclear triad” of bombers, submarines and land-based missiles



A Cold War test in March 1953 in Nevada showed the impact of a 16-kiloton, tower-detonated nuclear warhead

over the next three decades. The U.S. is reinvesting in the labs and factories that produce warheads. While the U.S. nuclear stockpile has been slashed over the past 30 years, the U.S. military has said the remaining arsenal is unmatched.

Russia is in the midst of overhauling its nuclear forces, including new ICBMs, ballistic-missile submarines and modernized heavy bombers. It's developing a massive RS-28 Sarmat ICBM that boasts countermeasures designed to elude U.S. antimissile systems. It's also practicing nuclear snap drills that involve missile launches from the air, land and sea.

THE REST OF THE WORLD is not blind to the accelerating U.S.-Russia competition. While the two nations account for nearly 93% of the world's nuclear arsenal, there are now nine countries with stockpiles. Not only do they have no plans for disarmament, but they aren't seeking reductions. The number of nuclear weapons in the world has declined since the Cold War, from a peak of about 70,300 in 1986 to 14,550, according to the Federation of American Scientists (FAS). But the pace of reductions has drastically slowed.

Around the globe, the perceived value of acquiring nuclear weapons has gone up, while the repercussions of violating treaties has declined, says Hans Kristensen, director of the nuclear-information project at FAS. "We're certainly in a dynamic strategic competition where all sides are

arming themselves," he says. "If the dynamic is not stopped and reversed, it will almost inevitably escalate into an arms race. That is in the nature of the beast."

If Trump undoes the nuclear deal with Iran, analysts fear that Tehran will sprint for a weapon. Its regional rival Saudi Arabia could then develop its own atomic weapon, or import one from close ally Pakistan, which has its own fast-growing nuclear arsenal to counter arch-rival India's. (Pakistan is building up its stockpile of tactical nuclear weapons.) China now has a nuclear-powered submarine, known as the Jin-class, that gives its military the ability to launch ICBMs from the sea.

Few threats loom larger, or more immediate, for the U.S. than North Korea. Pyongyang has launched a record 23 missiles during 16 tests since Trump took office. It has tested at least six nuclear warheads, and U.S. intelligence believes it has made progress on miniaturizing a nuclear warhead to mount on a missile. The isolated nation's most recent launch, on Nov. 29, climbed 2,800 miles into outer space, more than 10 times higher than the International Space Station. If that flight path were flattened out, it could have hit New York City, Washington or nearly any other city in America.

Hawaii's false ballistic missile alert on Jan. 13 was the most visceral reminder yet of what's at stake. **BALLISTIC MISSILE THREAT INBOUND TO HAWAII. SEEK IMMEDIATE SHELTER. THIS IS NOT**

A DRILL, read the emergency-system alert pushed to people's smartphones statewide. It took 38 minutes to issue an all clear for the mistake; a worker had mistaken a drill for the real thing.

Disarmament experts warn that this is just one of the risks in a new era of brinkmanship. "Trump has not said what the last 10 Presidents have said, which is we will lead on arms-control agreements and nonproliferation issues," says Thomas M. Countryman, a 35-year career diplomat who retired last year after leading the State Department's nonproliferation efforts. "I think that is an indication that the importance of appearing masculine is more important than actually reducing the threat of nuclear warfare."

Philip Coyle, a former test director at the Nevada Test Site, also warned about the chance of miscalculation. "This is a time where we need more thought about where we've been and where we're headed," he said. "There is little room for error."

Americans of a certain age will remember the Doomsday Clock maintained by the *Bulletin of the Atomic Scientists*. It expresses the risk of nuclear annihilation as time remaining until midnight. On Jan. 26, citing Trump's moves, it pushed the second hand 30 seconds forward, the closest Doomsday has loomed since 1953, when the U.S. and Russia first tested hydrogen bombs within months of each other. □

World

THE MISSILE FACTORY

DID FORMER SOVIET SCIENTISTS HELP ARM NORTH KOREA?



7

BY SIMON SHUSTER/DNIPRO, UKRAINE



Engineers assemble a rocket at the Yuzhmash factory in eastern Ukraine

VIKTOR MOISA, A RETIRED ROCKET SCIENTIST, WELCOMED THE NORTH KOREANS TO HIS INSTITUTE IN EASTERN UKRAINE JUST AS HE WOULD WITH ANY OTHER GUESTS. HE TOOK THEM UPSTAIRS TO THE SHOWROOM OF SOVIET SATELLITES AND ROCKET ENGINES, THE PRIDE OF THE INSTITUTE'S COLLECTION. THEN THEY WENT OUT TO THE YARD,

where an array of parts for ballistic missiles were on display. This was in the early 2000s, well before North Korea would test its first nuclear bomb in 2006. So the visitors' interest in missile technology did not arouse Moisa's suspicion. "They came as tourists," he told TIME on a breezy afternoon last fall. "At least that's how they presented themselves."

We were standing in the same yard he had shown to the North Koreans, a paved lot in the city of Dnipro where old missile components are still on show, many of them made at a nearby rocket factory known as Yuzhmash. Guidance systems, fuel pumps and the massive cones designed to hold nuclear warheads at the tip of a rocket all stood in the autumn sun like leftovers from a military rummage sale. Moisa, a cheerful 79-year-old with a puff of silver hair, says he understands in retrospect that his guests from North Korea were probably spies. "It's just a guess," he told me with a smile. "But they were probably dreaming of being a real missile power."

That dream has since been achieved. Over the past eight months, North Korea has test-launched three rockets capable of striking the U.S. mainland. According to missile experts in the U.S. and Europe, the key components of these rockets are based on Soviet designs, much like those displayed in Moisa's museum. The latest North Korean breakthrough, the Hwasong-15 missile, was tested in November; experts believe it could be powerful enough to lob a nuclear warhead all the way to New York City.

This feat of engineering, which only a few nations have ever achieved, exposed a long history of failures on the part of the U.S. and its allies. It showed that the strict sanctions they imposed on North Korea failed to isolate its military. It showed that North Korea, a country so poor that its cities go dark at night to save power, was still able to acquire some of the world's most sensitive technology and hire experts who know how to use it. It showed that, despite decades of nonproliferation efforts, a rogue nation had obtained a weapon capable of starting World War III.

Now, as the world adjusts to the reality of a nuclear North Korea, its young dictator Kim Jong Un

has begun to sell this technology abroad. One of his most eager customers is the regime in Syria, which is also under strict international sanctions, according to a classified report that the U.N. Security Council is due to discuss at the end of February. A draft of the report, which was seen by TIME in January, suggests that Russia—Syria's steadfast supporter—may be turning a blind eye to this trade while stonewalling U.N. efforts to investigate it.

As a permanent member of the Security Council, Russia has always denied such accusations. President Vladimir Putin insisted in December that he has tried to help the West in curtailing the spread of weapons of mass destruction. But in the same breath, he blamed the U.S. for leaving Kim no choice but to go nuclear. "For North Korea, this was the only way of self-preservation," Putin said. "WMDs and missiles."

Pyongyang's weapons program had help from a variety of sources. The regime's ability to enrich uranium, a key step in building a nuclear warhead, is believed to have come from Pakistan. But launching those warheads across continents would be impossible without Russian or Ukrainian technology, experts have concluded; and that, they say, is what allowed North Korea to become a truly global threat.

Starting in the early 1990s, the North Korean military methodically sought to assemble its weapons program from the ruins of the Soviet missile industry. The regime's first team of foreign missile experts was recruited inside Russia, and recruitment efforts have continued in the decades since.

Such scientists, including experts in chemical, nuclear and biological arms, are not hard to find in Russia and Ukraine. By U.S. estimates, tens of thousands of them were left jobless after the Soviet Union fell apart. "And there were huge temptations for scientists to take some of their knowledge and potentially sell it elsewhere," says former U.S. Ambassador to Ukraine Carlos Pascual, who headed the Russia desk at the White House in the late 1990s. "Given what was at stake, and what the cost of that knowledge leaking out might be, I think few had a clear understanding of how important this was."

THE WARNING SIGNS look painfully clear in hindsight. As early as 1991, and as recently as 2011, North Koreans were caught trying to acquire Soviet-era missile technology, which has not always been kept under lock and key. In 2002, six tons of components for a Soviet ballistic missile turned up in a Ukrainian scrapyard. In another case in Russia last summer, two sets of surface-to-air missiles were found in a garbage dump in eastern Siberia.

Among the experts studying North Korea's newest rockets, the first to raise the alarm over their Soviet origins was Michael Elleman, a former U.N. weapons inspector and consultant to the Pentagon. He had seen many of these weapons up close over the years.

13,000 km

Operational range of the Hwasong-15 intercontinental ballistic missile tested by North Korea on Nov. 28; the missile is, in theory, able to strike anywhere in the continental U.S.

After the fall of the Soviet Union, he took part in U.S. programs to dismantle some of the largest missiles in the Russian stockpile, and he understood how easy it would be for this technology to leak. “As a proliferation risk,” he told me, “this has never really gone away.”

That seemed clear from North Korea’s latest missile launches. At his think tank in London, the International Institute for Strategic Studies, Elleman compared footage of those launches shown on North Korean television in July with photos of Soviet missile engines dating to the 1960s. One of them appeared to match the RD-250, an outdated but highly reliable machine.

Roughly 200 of these engines still exist, according to Yuzhmash, the missile factory in Dnipro that made them. Nearly all are stored in Russia, but Elleman concluded that if one had been stolen, it would more likely have been from a smaller stockpile in Ukraine. He pointed in particular to Yuzhmash itself, which was known to have been a target of North Korean spies not posing as tourists. Two of them were arrested in Ukraine in 2011 while trying to purchase copies of the factory’s designs; both are now serving eight years in prison for espionage.

In some ways, the plant was an obvious target. Founded during World War II to help the Red Army defeat the Nazis, it went on to develop many of the Soviet Union’s most powerful ballistic missiles. When *TIME* visited Yuzhmash last October, we were greeted by the sight of a missile code-named “Satan,” which was once capable of orbiting the earth and, at Moscow’s command, dropping a hail of nuclear warheads on its target. “This was our pride,” says Vladimir Platonov, the factory’s in-house historian. “We kept the Americans up at night.”

But the end of the Cold War made such weapons seem unnecessary. Under pressure from the U.S. and Russia, Ukraine agreed in 1994 to give up the arsenal of nuclear warheads it inherited from the Soviet Union. It also pledged to disarm the ballistic missiles meant to carry those warheads. For the cause of global disarmament, this was a breakthrough. For Yuzhmash, it was a disaster. Thousands of its engineers lost their jobs as the state’s demand for missiles dried up. Today the factory makes tractors and trolley buses to make ends meet. What rockets it still builds are intended to launch satellites into orbit.

Traditionally, its most reliable customer for these rockets has been Russia. But the conflict that broke out between the two countries in 2014 severed many of the economic ties between Russia and Ukraine, especially in sensitive fields like rocket technology. Yuzhmash fell on even harder times, slashing wages, rationing electricity and laying off the bulk of its staff. “It was a question of survival for us,” says Oleg Lebedev, the factory’s chief of production.

It’s not hard to see how these troubles made the



factory more vulnerable to theft, Elleman said. “A small team of disgruntled employees or underpaid guards ... could be enticed to steal a few dozen engines,” like the RD-250, he wrote in a report that was published in August. These machines, he added, “can be flown or, more likely, transported by train through Russia to North Korea.”

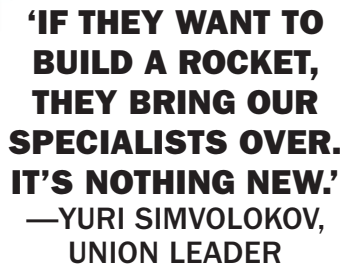
The report put Ukraine’s government on the defensive, and it scrambled to find all the ballistic-missile engines stored inside the country. In little over a week, it tracked down about a dozen RD-250s, nearly all of them stored at Yuzhmash, and announced that the investigation was closed.

But what the commission did not examine was the risk of the weapons scientists finding their way to North Korea. According to Lebedev, who took part in the investigation on behalf of Yuzhmash, the size of the factory’s workforce shrank sixfold between 2014 and 2017. “We’re talking about thousands of workers,” he says. “Everyone from the welders on the factory floor to the top engineers in our design bureau. We lost them all.”

The impact was obvious when Lebedev showed *TIME* around the missile factory. Its main production hall was almost deserted. About a dozen workers busied themselves inside a few space rockets, each one about the size of a jumbo jet. There was not a computer in sight. All measurements were done by hand, and elderly women in heavy coats noted them down in paper ledgers.

Yuri Simvolokov, a union organizer who has helped Yuzhmash workers stage strikes over unpaid wages, says many of them have gone abroad to find work over the years—not just to North Korea, but also to Iran and Pakistan. “They pay big money over there,” he says of these countries, over dinner with a few of his fellow teamsters. “And if they want to build a rocket, they bring our specialists over. It’s nothing new.”

In fact, the exodus began decades ago. In April 1991, as the Soviet Union was dissolving, a specialist in solid-state physics named Anatoly Rubtsov was approached by a group of North Koreans at an



**'IF THEY WANT TO
BUILD A ROCKET,
THEY BRING OUR
SPECIALISTS OVER.
IT'S NOTHING NEW.'**
—YURI SIMVOLOKOV,
UNION LEADER

academic conference in Beijing. He had worked for years at a top-secret facility in southern Russia, producing intermediate-range missiles for the Soviet arsenal. But his loyalties seem to have flagged as his nation fell apart, and he became one of North Korea's first known recruits from the former Soviet Union.

The North Korean offer, compared with Rubtsov's prospects back home, must have seemed like a saving grace. As he later explained in interviews with Russian and Western reporters, he was invited to set up a research institute in North Korea and staff it with Russian engineers. Their aim would be to establish the regime's missile program, according to Rubtsov's own published accounts. But it didn't stay secret for long. On Oct. 15, 1992, about 60 of his recruits were detained at a Moscow airport, and news of their plans caused an international scandal. Under pressure from the U.S. and South Korea, the Kremlin agreed to prevent Russian scientists from working on the North Korean missile program.

Pyongyang took this as a sign of betrayal. The regime's relations with the Soviets had always been comradely. The founder of the dynasty that still rules North Korea, Kim Il Sung, was installed in power by the Soviet military in 1945 on the direct orders of Joseph Stalin, and the Soviets provided Kim with the tanks and artillery he used in 1950 to invade South Korea.

In 1961, Moscow signed a treaty of mutual defense and cooperation with Pyongyang. The agreement obliged the Soviet Union to defend the Kim regime if it ever came under attack. But President Boris Yeltsin and his band of reformers had no

intention of honoring that agreement after they took power in Russia in 1991. "We had a different understanding of that responsibility," says Georgy Kunadze, who as Russia's Deputy Foreign Minister for Asia was dispatched to Pyongyang to explain how Russian thinking had changed.

He understood upon arrival that the North Koreans felt abandoned by Moscow. Their subsequent push to build a nuclear weapon was, to a large extent, driven by a resulting sense of insecurity, Kunadze says. During his meetings in Pyongyang, he asked that North Korea stop inviting Russian scientists to build their arsenal for them. "They gave some mild assurances, and that was that," he says.

These assurances meant little in practice, as did Russia's attempts to stop its scientists from going to work where they pleased. In a recent interview, the prominent missile designer Yuri Solomonov admitted that Russian scientists did wind up working on the North Korean weapons program in the 1990s.

"They took the bait," he told the state-run newspaper *Rossiyskaya Gazeta* in December.

Kunadze, who went on to serve as Russia's ambassador in South Korea, says there was little the government could do to stop them. "Russia at the time ... was a total mess," he says. "Nobody had any money. The borders were open." And the Russian scientists who traveled to North Korea were not in violation of any Russian laws. "So all we could do was reason with them," says Kunadze. "In the end, it was their choice."

The most immediate impact of the Rubtsov scandal was the alarm it caused in Western capitals, which were forced to realize the potential danger of an unchecked Soviet brain drain. The U.S. and Europe responded in 1993 by throwing money at the problem. Acting in sync with partners in Europe and Canada, the U.S. set up two organizations that year, one based in Moscow and the other in Kiev, with the aim of giving tax-free grants to scientists in Russia, Ukraine and other formerly communist nations.

"Our goal was never to fund science," says Curtis Bjelajac, the director of this operation in Kiev, which is called the Science and Technology Center in Ukraine. "The whole thought process behind the STCU was, it's a handout." By his estimate, between 15,000 and 20,000 experts in weapons of mass destruction were left jobless in Ukraine alone after the fall of the Soviet Union. The number in Russia was likely far higher. Most of them were middle-aged or elderly. So the aim was to keep them busy until they either transitioned to work in the private sector or grew too old to go abroad.

Initially, it worked. At its peak around 2003, the programs in Moscow and Kiev were jointly giving out some \$100 million per year in the former Soviet Union. This lifeline did not simply make the difference between a steady income and abject poverty for researchers across the region. It also nurtured their dignity by allowing them to continue working in their fields, says Dimitry Bazyka, one of Ukraine's leading experts in nuclear technology. "It gave us a reason to value ourselves," he says.

His nuclear institute still functions today with Western support, but it is a shoestring affair. Its campus abuts an outdoor bazaar in eastern Kiev full of kebab shops and peddlers of bric-a-brac. The entrance to the compound was so hard to find amid the maze of alleyways and vendors that I ended up climbing over a fence to get inside. No one stopped me.

Scientific institutes in Russia have generally fared better, but their record of security is mixed at best. In the winter of 2011, two bloggers found a way to sneak into one of Moscow's most secretive missile factories, Energomash, and spent several nights photographing its technology. They did not encounter a single security guard. Although highly embarrassing for Russia's missile industry, the incident did not make many headlines in the West, where terrorism



*Rocket parts
await assembly
at Workshop 97
of the Yuzhmash
plant*

and the wars in the Middle East had eclipsed other security concerns in the early 2000s. Public interest in the safety of Soviet-era weapons technology dwindled, as did support for obscure programs like the STCU. “Our donors concluded that the threat from weapons scientists had been contained,” says Bjelajac. But Serhiy Komisarenko, one of Ukraine’s leading experts in biological weapons, said the money was never enough to cease the flow of personnel. “The temptation to go abroad was always intense,” he said. “And it still is.”

WHETHER ANY of Ukraine’s impoverished scientists have gone to work in North Korea is difficult to prove. In eastern Ukraine, one rocket scientist agreed through an intermediary to discuss his work in Pyongyang with *TIME*, but then changed his mind at the last minute and refused to meet me. It’s hard to blame him. With the renewed concern over technology leaking out, Ukraine’s security services have stepped up monitoring of former weapons scientists. Those caught selling their expertise abroad could face charges of treason.

The U.N. panel of experts on North Korea has not found anyone either. In preparing its latest report to the Security Council, the panel sent inquiries to Russian officials, asking for the names and passport numbers of any weapons scientists who might have passed through Russia on their way to Pyongyang. They received no response, according to the draft of their report. In some sense, the silence was typical of Russia’s two-faced position on the issue. Throughout his 18 years in power, Putin has supported or acquiesced to U.N. sanctions that have sought to isolate the Kim regime. But he has also offered Pyongyang ways to escape that isolation.

Less than two months after Putin took power in 2000, Russia signed a treaty of friendship and cooperation with North Korea, reviving many of the diplomatic ties that bound Moscow to Pyongyang during the Cold War. A few months later, Putin became the first Russian or Soviet leader ever to pay an official visit to North Korea. “That totally revitalized our relationship,” says the former Russian diplomat Konstantin Pulikovskiy, who helped steer Moscow’s relations with Pyongyang. “The main thing was the personal rapport between the two leaders.”

The second tyrant of the ruling dynasty, Kim Jong Il, had an even deeper connection to Russia than did his father. He was born in the Soviet Union, in a dirt-road village called Vyatskoe, where he lived for the first few years of his life under the name Yuri Irsenovich Kim. During that first meeting with Putin, he made no secret of his nuclear ambitions. “He told me back then that they have an atom bomb,” Putin recalled during a televised interview last October. “And more than that, he said they could use some pretty basic artillery to launch it all the way to Seoul.”

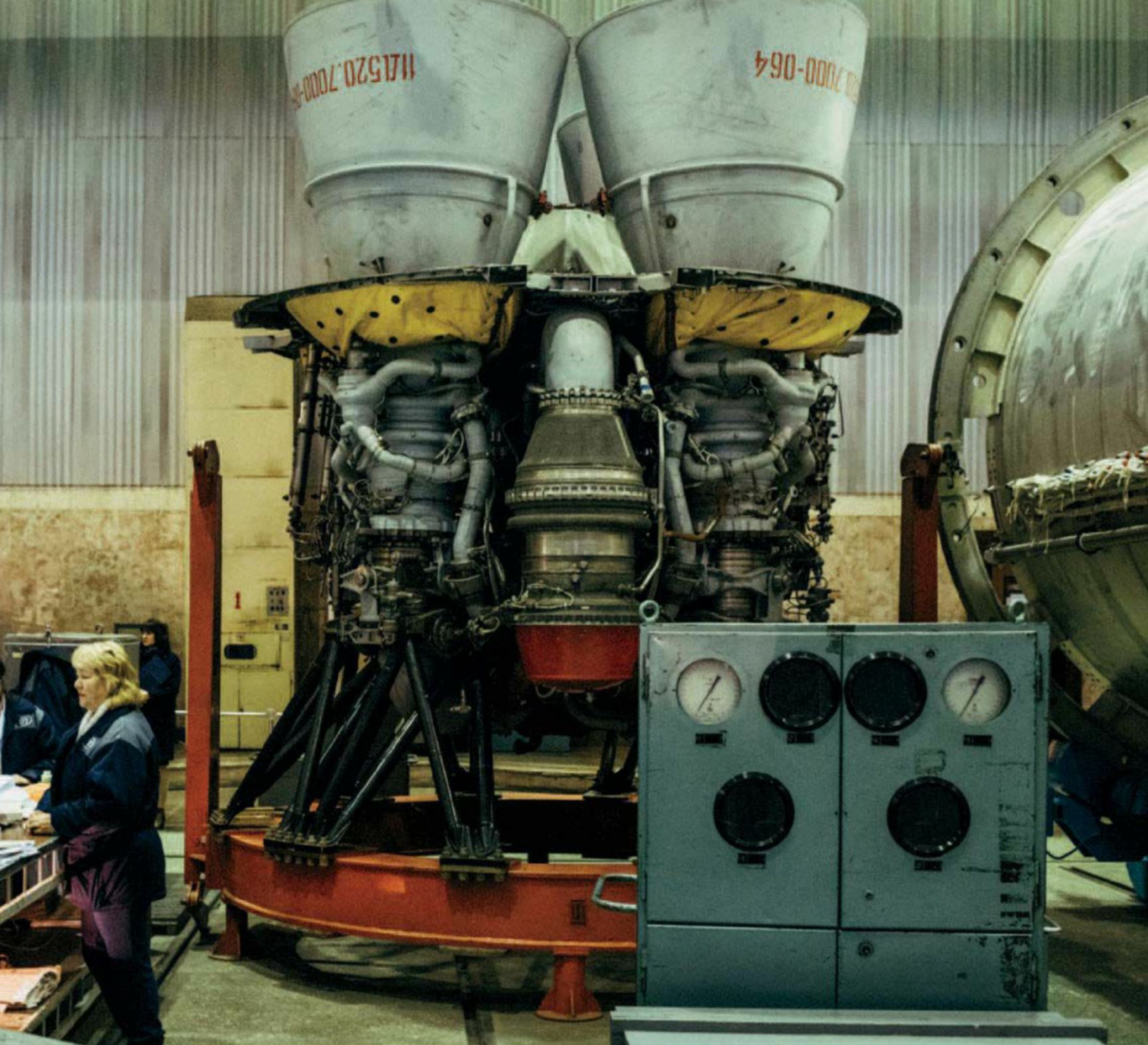
15,000

Number of experts in weapons of mass destruction who are believed to have lost their jobs in Ukraine after the fall of the Soviet Union



That first impression has not discouraged Putin from building bridges to the Kim regime. Even amid the spate of new missile tests over the past year—and the new U.N. sanctions imposed on North Korea in response—Moscow has continued to assist Pyongyang in crucial ways. A major Russian telecommunications firm provided North Korea with a new link to the Internet in October, relieving it of its dependence on China’s fiber-optic cables. Around the same time, North Korean ships were spotted picking up loads of fuel in Russia and, despite a tightening international oil embargo, bringing it back to their homeland.

For Putin, there would seem to be little obvious upside in nurturing this friendship. His country shares a border with North Korea, whose refugees would likely pour over the so-called Bridge of Friendship into Russia if a war ever broke out. A



nuclear explosion in the area would also put Russian citizens in serious danger, especially in the nearby city of Vladivostok.

But Putin's thinking goes beyond such immediate considerations, says Kunadze, the former Russian diplomat. Only in the broader context of Russia's rivalry with the West does it start to make sense. "In that context, North Korea is the enemy's enemy," Kunadze says. "It keeps the U.S. distracted. And that's valuable in itself."

Whether it is valuable enough for Putin to arm North Korea directly—or turn a blind eye to smugglers who are seeking to do the same—remains an open question. The most likely players in this trade have so far tended to blame each other: Ukraine insists that Russia is the source of North Korean arms, and Russia points the finger at Ukraine.

As we stood among the old missile parts on display outside his institute in Dnipro, I asked Moisa, the former rocket scientist, whether the blame could be so neatly apportioned. He pointed at an RD-250 engine next to us. It had been in that spot for more than two decades, he said, exposed to the elements, yet it had no obvious corrosion or other damage. "That was the quality of what we made back then," he said proudly. "I can tell you, it took a lot of work, a lot of people and a very long time." In order to clone this technology, he added, the North Koreans would need many years to master the materials and the science involved.

And if the North Koreans had a team of Soviet-trained professionals helping out? Moisa smiled again and looked at the engine. "We could do it in a year and a half." □

The factory's old missile workshops now produce rockets that launch satellites into orbit

Her Mother's Mind

**Photographer
Melissa Spitz** gives
new dimension to
mental illness in
images of her own
parent **By Susanna
Schrobsdorff**

*Deborah Adams, the
photographer's mother,
at Creve Coeur Lake in
Missouri, November 2016*





On one side of the lens is Melissa Spitz,

a gifted photographer from St. Louis who now lives in Brooklyn. On the other is her mother Deborah Adams, whose struggles with mental illness Melissa has recorded over the past eight years for a series she publishes on Instagram called “You Have Nothing to Worry About.” The nearly 6,000 photographs form an intimate visual diary of a disease that is often invisible, cloaked in shame, fear and stigma.

The work is mesmerizing: ghostly shots of a faded, beautiful woman who seems drawn to the camera, followed by uncomfortably close scenes of domestic dysfunction featuring the same woman. It’s both art and an expression of love, complicated and sharpened by the fact that Melissa has been both daughter and caretaker since she was a young girl.

Through her daughter’s eyes, Deborah, 63, is anything but invisible. We see her at deeply tragic moments, but also when she looks fierce and lovely—as a mother with her arms wrapped around a daughter who holds the camera that connects them. In older family photos, we see snapshots of Deborah as a child, then as a vibrant young woman fully in the world before illness takes hold, or as a new mother whose face is beginning to show the shadow of distress.

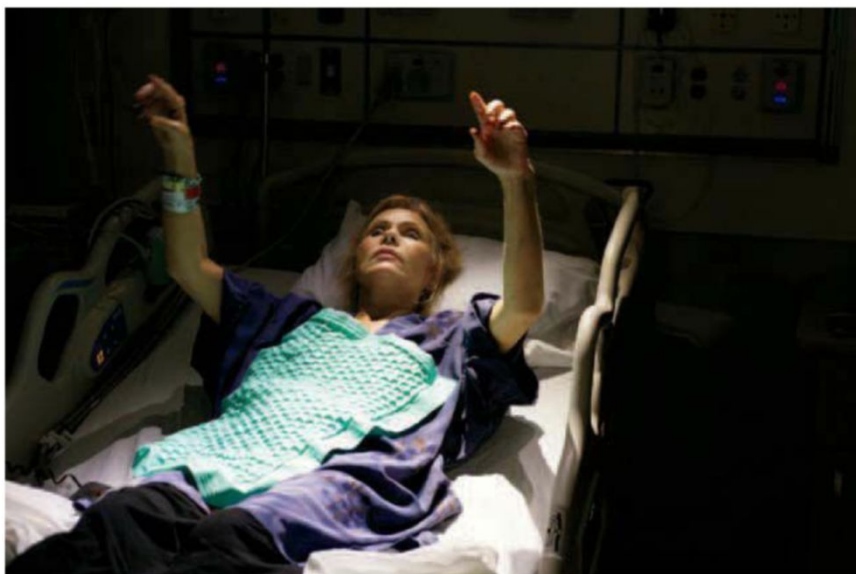
Anyone with a parent who has an illness that’s a source of constant upheaval and crisis will recognize Melissa’s story. Deborah was first hospitalized when Melissa was 7; her father was out of town when her mother became delusional. “For three days in a row she

called the police claiming people were in our house trying to kill us,” Melissa, 29, remembers. “I hid with her, stayed quiet with her, and then, when the paramedics showed up to wheel her out of our house on a stretcher, I felt alone.”

Over the years, Deborah has been diagnosed with paranoid schizophrenia, depression and bipolar disorder. Her psychiatric battles intensified with substance abuse, which afflicts 8.2 million American adults who are also struggling with mental illness.

Growing up with someone battling these disorders is as scary and confusing as you might think. “I had to learn how to drive her home when I was 14,” Melissa remembers. Finding a semblance of normalcy became harder for Melissa and her brother after their parents divorced. “I told a friend about my mom, and of course it got out,” she says. “Then it was: ‘You’re not allowed to be around Deb Spitz—she’s nuts.’”

But when Deborah was being treated for breast cancer, Melissa says,





Life at the center of a storm: Spitz's work chronicles eight years of her mother's struggles



“This is my way of coping, of making art out of chaos.”

MELISSA SPITZ

the response from their community was different: “Everyone helped us, everyone wanted to donate. I came home with casseroles. But not when my mom was in an accident, or on pills. Then they stayed away. It’s sad and unfair. Both of those things deserve support.”

Many of Melissa’s nearly 49,000 Instagram followers say her work is a form of support for them. People write in gratitude and offer their own confessionals, such as: “When I discovered your pictures I started crying because

they reflect, perfectly, everything I feel.” In this light, the series’ title, taken from a note that Melissa’s brother left for their mother, is as much a plea as it is a statement.

Creating art out of chaos has helped Melissa cope too: “The project became a buffer, a way to isolate horrible moments into tiny squares of digital material that I could make sense of later.” The project has reshaped this mother-daughter relationship. “The camera brings her attention and it

brings her me,” says Melissa, who flew back to St. Louis to see her mother every other weekend throughout much of graduate school. Now she returns every few months. “It’s an exchange, me giving to her, and her giving herself to me,” she says. “I think in a way she’s trying to make up for all the bad stuff.” Sometimes Deborah sets up shots or performs when the lens is turned her way. Other times, she asks, “You’re sure this is helping other people?” Melissa assures her it is. □

*‘The camera
brings her
attention
and it brings
her me.’*

MELISSA SPITZ



*Spitz calls this
photo of her mother
applying makeup
Mom's Mask*





OLYMPICS PREVIEW

ATHLETES TO WATCH IN PYEONGCHANG, INCLUDING:

ALPINE ACE MIKAELA SHIFFRIN
SKATING WHIZ KID NATHAN CHEN
HALFPIPE PHENOM CHLOE KIM
DARK-HORSE CHAMP BRADIE TENNELL
HOMETOWN HERO MAGNUS KIM

+

North and South Korea make nice

BY CHARLIE CAMPBELL

New events, old stars, fresh drama

BY SEAN GREGORY AND
BEN GOLDBERGER

*Shiffrin during her '17
world championship
slalom race; she's chasing
five Olympic medals*

PHOTOGRAPH BY ALEXANDER HASSENSTEIN





INSIDE THE RACING MIND OF THE BEST SKIER ON EARTH »

*Mikaela Shiffrin is ready to
set records in PyeongChang*

BY SEAN GREGORY/AVON, COLO.

“YOU WANT ME TO SAY SOMETHING THAT I CAN’T.”

I don’t do guarantees, and I’m not gonna start now just so you can bet on me. I have no idea how I’m gonna feel on race day. I only know that right now, I’m happy, I’m skiing fast, and I’m having FUN.”

ONE HOUR BEFORE RACING DOWN A mountain in Flachau, Austria, in early January, the 22-year-old American skier Mikaela Shiffrin typed those words on her phone. It was a text message to herself, a way of coping with the potentially crushing expectations that come with being the most dominant all-around skier in the world and a favorite to win multiple gold medals at the Winter Olympics, which open Feb. 9 in PyeongChang, South Korea. The texts help Shiffrin focus on the present rather than fretting over the future, allowing her prodigious talent to nudge aside her sometimes crippling anxiety.

It worked in Austria. Shiffrin trailed after her first run, but she rallied in the second to win the event, becoming the first woman or man in two decades to win five straight World Cup races. “I can also tell you,” she wrote in that same message, “I’m equipped to handle dang near anything that can possibly come my way.”

Much is riding on those text-message prophecies. Heading into her second Olympics, Shiffrin has the potential to be among the greatest skiers of all time. Already, she is just the second racer in history to record 41 World Cup wins before turning 23. In PyeongChang, she could break the record for most Alpine skiing gold medals won at a single Olympics (three, by Jana Kostelic of Croatia in 2002). Shiffrin is an overwhelming favorite to defend the slalom gold she won at the 2014 Games and a strong bet in the giant slalom—a

faster race with less frequent turns. She’s dominant in these technical disciplines, but Shiffrin is also likely to compete in two speed events, the downhill and super-G, as well as the combined (a mix of slalom and downhill)—potentially vying with the veteran American star Lindsey Vonn for the podium.

“Mikaela’s the best I’ve ever seen, male or female, in a few different categories,” says six-time Olympic medalist Bode Miller, who will be part of NBC’s skiing coverage in PyeongChang. He considers Shiffrin’s technical prowess and risk management unparalleled and can’t decide whether she compares more to LeBron James because of her physical gifts or to Michael Jordan, since she makes dominance look easy. “She can do whatever she wants,” says Miller.

PyeongChang will be Shiffrin’s biggest stage yet. Without NHL players or a favored women’s figure skating team, the photogenic Coloradan will be one of Team USA’s brightest lights. And since ski races stretch across both weeks of the Games, Shiffrin’s quest for as many as five medals will be one of the biggest stories.

That kind of pressure might have crushed Shiffrin not long ago. In 2016, a sudden bout with anxiety left her sick, crying and questioning her commitment to skiing, even as she kept winning races. “Last season, I would have been like, ‘Oh God, what if I don’t live up to what the face of the Olympics is supposed to do?’” she tells TIME during a conversation in the modest home she shares with her



parents in Avon, Colo. Now, after a lot of work on her mind as well as her body, Shiffrin insists that she’s ready to carry the weight. “Face of the Olympics or not, I’m the same person,” she says. “It’s a good mental place to be.”

SHIFFRIN WAS ABOUT 2 when her parents first put her on skis. Her talent was evident early. Jeff Shiffrin, an anesthesiologist, recalls hitting a trail with Mikaela when she was 7 and realizing he was moving at a brisk pace. “I look behind me to see if she is in sight, and she is on my tail,” he says. “She’s like, ‘Go faster.’”

Eileen Shiffrin, a former intensive-care nurse, regularly drilled Mikaela and her older brother Taylor, 25, on technique and embraced all manner of training methods. She once bought the kids unicycles on the grounds that the coordination needed to ride one would help their skiing and soccer skills. “She thinks it’s so normal,” says Mikaela as her mother stands nearby, laughing. “No. People don’t do that, Mom. I get on the unicycle, and people are like, ‘That’s incredible! We were a very strange family.’”

From an early age, Shiffrin took an



Shiffrin atop the podium at the World Cup giant-slam race in Kranjska Gora, Slovenia, on Jan. 6

interest in the mental aspects of sports. She read books like *The Inner Game of Tennis*, the seminal 1972 guide to quieting one's mind in order to reach peak performance. "She was mindful as a 9-year-old," says John Cole, human-performance director at Ski and Snowboard Club Vail, "before anyone knew what that was."

Shiffrin has been similarly ahead of the curve on sleep. Ever since she played poorly in a middle-school soccer game after staying up late reading horror stories at a slumber party, Shiffrin has been militant about getting enough shut-eye. She's famous on the World Cup circuit for taking naps, on command, in chairlifts and on the floors of ski lodges.

The Shiffrins sent Mikaela to high school at Burke Mountain Academy, a slopeside school for budding ski racers in Vermont. Even among her fellow athletes, she was single-minded in her devotion to training, often forgoing parties and dates. Of her first high school dance, Shiffrin

recalls, "It was all grinding. I was like, 'Umm, I don't want to be doing this.'"

"All activities to unshelter herself, she didn't partake in," says Shiffrin's best friend, Bug Pench, a classmate at Burke. Pench remembers one team van ride to a meet when Shiffrin started belting out the lyrics to the raunchy song "The Bad Touch" without realizing how vulgar it was. "The fact that little childlike Mikaela is sitting there singing all of the words was hilarious," says Pench. "Certain connotations went over her head. The coaches turned around and were like, 'Wait, what?'"

Shiffrin joined the World Cup tour in 2011 at age 16, and Eileen insisted on traveling with her as both head coach and chaperone. The events are primarily in Europe, and most racers are in their 20s or early 30s. "There's a huge party scene," says Shiffrin. "I needed somebody there to protect me."

Eileen has remained a permanent presence by her daughter's side, an arrangement that has led to occasional tension with U.S. ski officials and plenty of backbiting from rival racers. But good luck quibbling with the results. Shiffrin

became the youngest Olympic slalom gold medalist ever at the 2014 Sochi Olympics and has won four World Cup slalom championships. She won the all-around world title a year ago and sits atop the standings this season. "Anybody who says Eileen isn't the head technique coach and motivator," says her husband, "is smoking dope."

Still, the dynamic can be fraught. "If she's talking to me as my coach and I'm listening to her as her daughter, that's one of the most heartbreaking, painful things," says Shiffrin. "Those conversations can be terrible." It's taken years for the star pupil to fully appreciate the distinction between the two roles. "Just because she might be hard on me on the slopes, which I ask her to be, because that's the only way I can keep improving, doesn't mean she doesn't love me as a mom," says Shiffrin. "I'm starting to really grasp that. And it's awesome."

EILEEN, HOWEVER, couldn't save Shiffrin from herself a year ago, during the season that threatened to derail her career. Before the first slalom race of the year, in Levi, Finland, in November 2016, bad weather prevented her from training as much as she wanted. Rather than the typical prerace butterflies, Shiffrin felt as if a string were tied around her throat. She dry-heaved right before her second run, then wiped her eyes, lowered her goggles and somehow won the race.

Rough weather once again set back her training before the next races in Killington, Vt., and Shiffrin's stomach started churning again. On the day of her slalom race, Eileen and Mike Day, one of her coaches, were talking race strategy on a chairlift when Shiffrin began to dry-heave.

Again, she managed to pull it together and win, but it was clear that she was starting to crack from the pressure. "There will be more, of everything," she wrote in a tortured note to herself while working out in Sestriere, Italy, before a December competition. "More sweat. More fluorescent-lit hallways of constant dreaming that I will come out having achieved my goals, having looked like I know what I was doing, with no end in sight, aside from the dimmest flicker of firelight that reminds me to believe that I deserve to have faith in my dreams. I will

From French skaters to U.S. sledders, here are names to know.

Maame Biney

Speedskating, USA
Biney, 18, became the first African-American woman to make the U.S. speedskating team. She moved to Maryland from Ghana at age 5.

Gabriella Papadakis and Guillaume Cizeron

Figure skating, France
The pair holds the record for the highest scores in ice dancing. The favorite for gold, their free dance to *Moonlight Sonata* has been called “magical.”

Shaun White

Snowboarding, USA
After a gruesome training crash in October left him needing 62 stitches, White, 31, scored a perfect 100 in an Olympic qualifier and is on track for his third Olympic halfpipe gold.

Seun Adigun

Bobsled, Nigeria
A former sprinter, Adigun, 31, earned a chiropractic doctorate in December; now she’ll drive the first bobsled team to represent Africa at the Winter Games.

Gus Kenworthy

Freestyle skiing, USA
Kenworthy, 26, a Sochi silver medalist, will join figure skater Adam Rippon as the first openly gay American male athlete to compete in a Winter Olympics.

have good days. As long as I am willing to have the bad.”

The next day, out of sight of the TV cameras, Shiffrin vomited her coffee a few minutes before the start of a slalom race.

Shiffrin’s team realized that she needed help. They cut back her race schedule, and, critically, Shiffrin began talking to Lauren Loberg, a sports psychologist and family friend who also works in the NFL’s player-engagement office.

During their first Skype session, Loberg could see that Shiffrin was worn down; she gagged while describing her problem with vomiting before races. “Today everything sort of blew up in my mind,” she wrote to Loberg in January after a training session. “I was trying really hard but not able to do things that I wanted.”

Loberg encouraged Shiffrin to stop talking about trying. “If you think about it,” says Loberg, “trying is the opposite of relaxing.”

It was a simple message, but it gave Shiffrin permission to focus on each moment as it came. Her anxiety began to subside and her meals began to stay down. Going into Shiffrin’s final slalom run at the world championships in St. Moritz, Switzerland, Shiffrin was battling hometown favorite Wendy Holdener for the title. *It’s your home, everybody thinks it’s your day*, Shiffrin thought at the start gate, mentally addressing Holdener. *But it’s not your day. It’s my day*. Shiffrin won by 1.64 sec.—an eternity in Alpine skiing. “It was incredible,” she says. “I beat myself.”

Shiffrin has also begun to emerge from her ski-centric cocoon. She has a boyfriend, the French Olympic skier Mathieu Faivre. And she’s willing to wade into social issues. Shiffrin says she admires the NFL players who knelt in protest of inequality during the national anthem. “If patriotism was as simple as a flag and standing for your anthem, you can consider every country as patriotic as the U.S., right?” says Shiffrin. “But they’re not. It’s about fighting for what you believe in. These athletes are actually showing more patriotism than I’ve ever seen before.” Still, Shiffrin says she would accept the Olympians’ customary White House invitation from President Trump on the basis of her positive experience in Washington after Sochi in 2014.

AN ATHLETE’S DEMONS are never really slayed so much as waylaid. Shiffrin’s Olympic year got off to a rocky start, with a fifth-place finish in her first World Cup race, in October. Two weeks later, she lost to Slovakia’s Petra Vlhova in slalom despite being favored to win. Doubt began creeping back in. “I skied as hard as I could and still couldn’t beat her,” says Shiffrin. “All of a sudden I was questioning everything.”

Ahead of her races at Killington in late November, Shiffrin sent me a text message that didn’t exactly brim with confidence. “Right now I’m feeling ... uncertain,” she wrote, adding an emoji of an exasperated woman covering her face with her hand. “On the plus side, I have not puked this year! Ha-ha.”

Shiffrin has continued working with Loberg, but the confidence boost this time came from an additional source: Eminem. The rapper’s song “Guts Over Fear” struck a chord, and Shiffrin scribbled the words onto 12 pages of notebook paper. “It started to put me in this mind-set of instead of being scared, I was just going to basically get pissed off,” she says.

Shiffrin won the slalom in Killington and went on a historic tear. In December and early January, she won eight of nine World Cup starts and clinched her first downhill victory, making her a threat in Vonn’s strongest race. Not that Shiffrin’s dominance in South Korea is assured. Vonn is the all-time leader in women’s World Cup wins, with 79, and the 2010 Olympic gold medalist is a far more decorated speed racer than Shiffrin and a favorite in the downhill. Germany’s Viktoria Rebensburg and Tessa Worley of France, meanwhile, are ahead of Shiffrin in the current giant-slalom standings.

This time, however, Shiffrin is up for the challenge. “I have the opportunity to absolutely blow the lights out in these Olympics,” she says. Perspective will only help her quest (along with ample helpings of “Guts Over Fear”: “I can rap it word for word perfectly,” Shiffrin boasts).

While riding in a car through Italy in January, Shiffrin typed another missive to herself on her phone. “Value love, not triumph. Remember moments, not victories. Count memories, not medals.”

The key to rewriting the Olympic record book, it seems, might be the words you write to yourself. □

FIGURE SKATING > USA

BRADIE TENNELL

Bradie Tennell is nothing if not prepared. After being derailed by back injuries, the 20-year-old from Illinois was cleared to skate again in late 2016, and she hit the ice in stride. This season, Tennell earned bronze at her first major international competition, won gold at the U.S. national championships and skated away with a surprise spot on the Olympic team. She's now a dark horse to medal. And while she couldn't have predicted how things would turn out, she was, as always, prepared: Tennell's short program is set to a patriotic song by a South Korean composer.

—Alice Park



Alina Zagitova

Figure skating,
Russia

A gold contender at just 15, Zagitova is among the Russians allowed to compete under the doping ban. She earns bonus points by packing her jumps in the back half of her program.

Meghan Duggan

Hockey, USA

After two straight losses to Canada in the Olympic gold-medal game, U.S. captain Duggan, 30, is seeking revenge against an archrival.

Pita Taufatofua

Cross-country
skiing, Tonga

A taekwondo competitor in Rio, he went viral after marching in the opening ceremony shirtless and covered in coconut oil. Despite growing up in the South Pacific and never skiing before last year, Taufatofua, 34, secured a long-shot bid to PyeongChang.

Jamie Anderson

Snowboarding, USA

Anderson, 27, won the inaugural slopestyle event in Sochi; a repeat would make her the first women's snowboarder to win two Olympic golds.

Shim Suk-hee

Speedskating,
South Korea

The native of Gangneung—the coastal city hosting all the arena ice events at the Games—won gold, silver and bronze in Sochi. Short track is wildly popular in South Korea, and Shim, 21, holds the world record in the 1,000 m.



SNOWBOARDING > USA

Chloe Kim

Rare is the 17-year-old with the perspective to see missing the Olympics as a good thing. Four years ago, Chloe Kim qualified for the U.S. team in Sochi—but she was still two years shy of 15, the minimum age to compete. “Looking back on it, I’m really glad I couldn’t go,” Kim says. “I don’t know how my 13-year-old self would have dealt with it.”

The wait has only heightened the expectations in PyeongChang, where Kim is widely seen as the gold-medal favorite in the halfpipe event. Fellow Americans Kelly Clark, who won the Olympic halfpipe gold 16 years ago, Arielle Gold and Maddie Mastro are also contenders.

Few can match the exuberant Southern California native's precocious résumé: she is the youngest snowboarder to earn a gold medal at the X Games—in 2015, at age 15—and the first female athlete to land back-to-back 1080s (three full revolutions in the air) in competition. “She rides with incredible style and goes huge,” says American snowboarding legend Jake Burton. “She’s at the pinnacle right now.”

Kim was raised in Torrance, Calif., a sand-and-surf town

just south of Los Angeles. But her parents, who immigrated to the U.S. from South Korea, were keen on family trips to the slopes, and Kim took up snowboarding at age 4. “My dad was trying to drag my mom into coming with him,” she says. “I was kind of the bait.”

Kim really took to the sport when she was 8, and her parents sent her to live with an aunt in Geneva for two years. “I realized how cool the mountains were, how the clouds are always beneath us,” she says. Kim won a junior competition in Switzerland and never looked back. She has medaled in all six of her X Games starts, including four golds, all while juggling online classes for high school.

In PyeongChang, Kim will have two countries rooting for her. The South Korean cheering section will be led by relatives, including her grandmother in Seoul, who brings local newspaper clips featuring Kim to tea parties. Such attention can be a burden, but Kim seems to keep it in perspective, as ever. “I’m so, so honored to be in this position, where I get to represent both countries,” she says. “It’ll be a good time.” —S.G.

A ROGUE STATE MAKES TEMPORARY PEACE

North and South Korea are putting their differences aside—don't expect it to last

BY CHARLIE CAMPBELL

FROM THE 9TH CENTURY B.C., athletes and spectators traveling to the Olympics were protected by a truce that stilled feuding states during the Games. The *ekecheiria* was history's earliest attempt to separate sport from politics. Although tarnished by Cold War boycotts in the 1980s, the notion of the Olympics as peacemaker endures.

In PyeongChang, it's the Koreas' turn. North and South will march under a united flag and field a joint team in women's ice hockey, despite the two nations' officially remaining at war. The outreach comes as tensions have spiked following Kim Jong Un's accelerating nuclear and missile tests and his escalating war of words with U.S. President Donald Trump.

South Korean President Moon Jae-in hopes the show of unity can arrest what many fear is a relentless march toward nuclear catastrophe. So far, the sides are playing nice. North Korea is sending a 140-member orchestra, a cheering squad of young women, and 22 athletes to compete in ice hockey, figure skating, short-track speedskating, cross-country and Alpine skiing. (None are expected to medal.)

This is already progress. Before the 2008 Beijing Olympics, North and South negotiated for almost a year about fielding a joint team. Talks broke down when Seoul insisted that athletes be chosen on merit, while Pyongyang wanted squads composed 50-50 from each nation. This time North Korea agreed to all the South's proposals

within hours. "For North Korea, it's important to participate, get into the limelight and change the discourse from poverty, starvation and the nuclear program," says Udo Merkel, an expert on North Korean sport at Brighton University in the U.K.

The move has sparked backlash among conservatives in South Korea, who object to handing the regime a gift-wrapped propaganda coup. Moon's approval rating has fallen to a record low of 59.8% in recent days.

It's also doubtful that the gesture will lead to a permanent thaw; Kim has repeatedly said his nuclear arsenal is not up for negotiation. But North Korean participation does reduce the threat risk around the Games, especially as Seoul and Washington have postponed joint military drills also scheduled for February—an affront Pyongyang typically meets with missile and nuclear tests. In 1987, North Korea even blew up a South Korean passenger jet in order to destabilize the following year's Seoul Olympics.

At the very least, North Korea's participation is an *ekecheiria* that should put athletes and spectators temporarily out of harm's way. It's a case of "keep your enemies close," says Merkel. Dangers remain, of course, especially if visiting North Koreans defect. South Korea is constitutionally obligated to offer all North Koreans asylum, though doing so during the Games would cause Kim colossal embarrassment under the world spotlight. And the young despot does not weather embarrassment well.



FIGURE SKATING > USA

Nathan Chen

When he was 7, Nathan Chen performed a routine set to "I Just Can't Wait to Be King" from *The Lion King*, decked out in a Simba costume with hoodie, ears and tail that his mother made for the occasion. Few could have predicted how prescient it was.

Chen, 18, is now the two-time U.S. national champion and is known as the Quad King for being the first skater in the world to land five quadruple jumps in a single program. Most elite skaters perfect just one or two of the four-rotation jumps. Because Chen can whip off five different quad jumps, he's a favorite to win individual gold in PyeongChang.

A native of Salt Lake City and the youngest of five, Chen displayed his extraordinary skill from an early age, landing his first triple jumps at 10. Mastering quad jumps was an extension of the work ethic instilled by his parents, who emigrated from China. "My parents always wanted the very best from me and pushed me further and further," Chen tells TIME. "That stuck with me, and it's something I've taken hold of myself and tried to improve on."

But all the punishing jumps have taken a toll. Just after winning his first senior U.S. national championship medal in 2016, Chen injured his hip, which forced him to spend five months off the ice to recover. Once back in the rink, Chen focused on soaring even higher. "I never set out to do these programs or to make history," he says. Now he's setting a new standard for his sport that his Olympic rivals are struggling to follow. —A.P.

CROSS-COUNTRY SKIING →
SOUTH KOREA

MAGNUS KIM

South Korea rejoiced when cross-country skiing phenom Kim, 19, announced he would compete for the host country in PyeongChang. Kim's mother is South Korean, his father is Norwegian and Kim held citizenship in both countries. In 2016, Kim became the first South Korean to win a gold medal at a major international cross-country event, when he took two golds and a silver at the 2016 Youth Winter Olympics. No Asian country has ever won an Olympic cross-country medal. While skiers from Norway, Sweden and Italy provide stiff competition, Kim has home-field advantage—and the hopes of a nation behind him. —S.G.



**Maia and Alex
Shibutani**

Figure skating, USA
The sister-brother duo known as the ShibSibs are a fair bet to medal in ice dancing; their free program is set to Coldplay's "Paradise."

Noriaki Kasai

Ski jumping, Japan
Kasai, 45, is making his record eighth straight Winter Olympics appearance. He won a team silver in 1994, then earned individual silver and team bronze in Sochi. His nickname: Legend.

**Justine Dufour-
Lapointe**

Freestyle skiing, Canada
Dufour-LaPointe, 23, is the defending Olympic champ in moguls; older sisters Chloé, 26, who won silver in Sochi, and Maxime, 28, who finished 12th, will join Justine in PyeongChang.

**Elana Meyers
Taylor**

Bobsled, USA
She won bronze as a brakeman in Vancouver and took silver in Sochi as a driver. A mishap in Russia—her sled smacked a wall—cost Meyers Taylor, 33, gold; she's waited four years for another shot.

**Ryom Tae Ok and
Kim Ju Sik**

Figure skating, North Korea
No pairs team will be more closely watched than this duo from the Hermit Kingdom, who spent last summer training in Montreal to prepare for their Olympic debut.

5 STORIES TO WATCH

Doping bans, wily veterans and frigid temps



RUSSIA'S KINDA-SORTA BAN

Officially, Russia was barred from sending a team to PyeongChang as penance for its elaborate state-supported doping scheme at the Sochi Olympics. But 169 athletes who were deemed clean by the IOC will each compete as an "Olympic Athlete from Russia." They won't march under their nation's flag or hear its anthem if they medal—but they'll ensure that Russia's presence is felt.



NEW EVENTS

Four events will make their debut in PyeongChang: the Alpine team competition, in which 16 countries square off in a mixed-gender slalom tournament; big-air snowboarding (boarders ascend to the top of a tower, then fly off a 160-ft. ramp); mixed-doubles curling, which features two curlers—a man and a woman—on a squad rather than the usual four; and mass-start speedskating (think a very crowded oval).



AGE IS JUST A NUMBER

No sporting event mixes young and old quite like the Olympics. German speedskater Claudia Pechstein, 45, will become the first woman to compete in seven Winter Games; in the 5,000 m, she's seeking to become the oldest Winter Olympic medalist

in an individual event. Team USA's oldest member, hockey player Brian Gionta, 39, spurned offers from the NHL so he could return to the Games a dozen years after his previous Olympic appearance. (For the first time since 1994, NHL players will not compete in the Olympics.) Americans Kelly Clark (snowboarding), Kikkan Randall (cross-country skiing) and Shani Davis (speedskating) are all appearing in their fifth Olympics. The youngest U.S. Olympian is figure skater Vincent Zhou, 17.



WHO NEEDS SNOW?

Ecuador, Eritrea, Kosovo, Malaysia, Nigeria and Singapore are all making their Winter Olympics debut. Computer-science student Shannon-Ogbani Abeda, 21, will represent Eritrea; his parents fled the East African nation in the 1980s during the War of Independence and settled as refugees in Alberta, where Abeda grew up skiing.



BRRRRR

If you're watching from the comfort of your own home, be thankful. While temperatures in Vancouver and Sochi could be downright balmy, these Games could be the coldest since 1994, when Lillehammer, Norway, was host. One recent temperature from the PyeongChang Olympic Stadium: -8°F. For the opening ceremony, Polo Ralph Lauren will outfit Team USA in heated parkas powered by a battery pack.

—Sean Gregory and Ben Goldberger

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Time Off

'IS THE JOB OF THE WRITER FOR THE VERY YOUNG TO TELL THE TRUTH, OR PRESERVE INNOCENCE?' —PAGE 54



Timberlake returns to the Super Bowl 14 years after the “wardrobe malfunction” with Janet Jackson

CULTURE

At the Super Bowl, Justin Timberlake plays a high-stakes game

By Daniel D’Addario

IT’S HARD TO THINK OF A BIGGER, more consistently successful star than Justin Timberlake. Since his charmed beginnings as the front man of 1990s boy band ‘N Sync, Timberlake has triumphed in all of his endeavors. His solo music career includes a long string of hits, from “Cry Me a River” to “Can’t Stop the Feeling!” His roles in movies like *The Social Network* and *Friends With Benefits* established him as an affable but sensitive actor seemingly custom-made for the early 2010s. His appearances on *Saturday Night Live* and *The Tonight Show* turned his musical virtuosity toward a just-subversive-enough sort of comedy that went viral by default. These accomplishments earned him a reputation as the sort of entertainer who reigned in the Sinatra generation.

Yet it’s exactly this track record that makes Timberlake an uneasy fit for this moment. The Super Bowl halftime show, at which he is set to perform on Feb. 4 in Minneapolis, seems like just the right venue for an entertainer who has spent his career striving to deliver entertainment to the biggest possible audience. Timberlake thrives on the fuel of his own stardom, making the Super Bowl a perfect refuge. It is by definition the biggest stage in music, and it’s a booking that goes to only the most major of performers. This year the Grammys booked many passionately loved artists who are entirely unknown to baby boomers (Cardi B) and millennials (Emmylou Harris), showing us how atomized the music landscape is. The Super Bowl, meanwhile, shows us how knit-together it might be.

And yet it comes at a curious moment for Timberlake—one in which his recent singles from his forthcoming album *Man of the Woods* have debuted to mixed reviews. While even a career as seemingly bulletproof as Timberlake's can suffer ups and downs, this moment feels a bit more existential: now that hits come from semi-anonymous younger artists with none of Timberlake's careful image management, full-scale pop stardom doesn't really matter anymore. So how does the defining male pop star of the decade thrive in 2018?

THE HALFTIME SHOW isn't solely a coronation for the artists who perform. It has also been, in recent years, a pivot point. In 2015, Katy Perry capped a run of No. 1 singles with a turn that placed her imaginative showmanship on the grandest scale possible. Last year, Lady Gaga cemented a comeback with a performance whose scrappy resourcefulness put the previously inaccessible dance-pop diva in a whole new light. And twice Beyoncé has used the Super Bowl to reinvent herself: in 2013, a career-spanning medley certified her world-conquering resolve, and in 2016, a performance of her politically potent single "Formation" signaled that that resolve would be put toward a deeper vision.

Timberlake already knows the power of the Super Bowl well. In 2004, he narrowly dodged the massive career

repercussions that instead landed largely upon Janet Jackson after the pair's "wardrobe malfunction." Instead, he launched a burgeoning acting career before releasing the landmark album *FutureSex/LoveSounds* in 2006. Now, five years since he's released an album, Timberlake would seem to be poised for a new image overhaul in front of the Super Bowl's 110 million or so viewers.

Man of the Woods has been packaged as a step forward for Timberlake after his years of functioning as a pop generalist. In a video introducing the album, he wore plaid flannel and loose denim. Footage of Timberlake gazing through a veil of tree branches was accompanied by a voice-over of the singer intoning that the album was about his wife, his son and "where I'm from. And it's personal." Although his career-long north star has been pleasantly placeless pop, Timberlake is a Memphis native. In returning there, he is making the same journey of persona that Lady Gaga did before her Super Bowl performance. Then, for her album *Joanne*, Lady Gaga shed most of her Warholian trappings, put on a cowgirl hat and started talking about her love for family. Say this for Gaga, though: through sheer theatrical commitment, her inauthenticity felt somehow authentic. Her country era, fleeting though it may have been, was kicked off with music that was substantially different from what had come before. And it was a downshifting

from global icon to working pop star that the mega-ambitious Timberlake, who has barely put a foot wrong since his teenage years, might find hard to do. However much *Man of the Woods* may be a step toward an adult image for the 37-year-old, the first two songs released to the public sound less like growing up than a re-embrace of the familiar, chasing past success. Both are R&B songs that share Timberlake's longtime interest with romancing. "What you gonna do with all that meat?" he asks in "Filthy," the album's first single.

It's in the music videos that Timberlake reaches for whatever in his career he hopes will come next. In the "Filthy" video, he sings about sex and his "haters" while dressed like a nightclub-ready Steve Jobs in turtleneck and glasses, watching robots dance. More bafflingly still, in the "Supplies" video, Timberlake sings about sex ("I'll be the generator/ Turn me on when you need electricity") against settings that evoke recent social turbulence, including a protest, an Illuminati cult meeting and a burnt-out *Mad Max* landscape. A third video, released with less fanfare, features the rigorously authentic country star Chris Stapleton placed against a slick, glamorously directed background; even when going to the woods, Timberlake insists on going in highly polished pop-star style.

The tension between the music and the video is the tension within

Superstars at the Super Bowl

The halftime show has given the world's biggest stars a massive stage—with mixed results

**JUSTIN
TIMBERLAKE/
JANET
JACKSON**
Super Bowl
XXXVIII (2004)

"Nipplegate" damaged Jackson's career—and for years stymied the spontaneity of live TV.



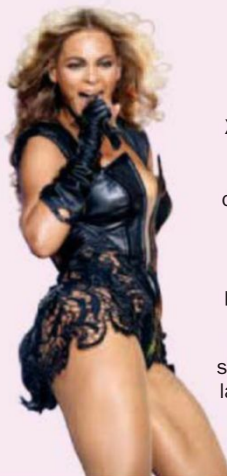
MADONNA
Super Bowl
XLVI (2012)

The boundary-pushing singer was a daring choice for the NFL—but the uneasiness of the fit got more attention than her unsteady new music.



BEYONCÉ
Super Bowl
XLVII (2013)

The era's defining artist emerged in a dazzlingly ambitious performance, setting the stage for her surprise album later that year.



an artist who knows what he's good at and who worries that he needs to somehow do more to keep up with the pop landscape. Because fans seem to love goofy and gaudy excess, why not make an apropos-of-nothing parody of an Apple keynote address? And because performative wokeness is in among younger generations, why not reframe "Supplies"—like many of Timberlake's best-loved hits, a song with no real message—as about the vast array of concerns and fears Americans face in 2018? But in addressing the early songs from his putative "grownup" album to an audience he hopes will make them go viral on YouTube, Timberlake is attempting to speak a language whose subtleties he hasn't yet picked up. Applying the visual language of protest movements to a blandly corporate song is exactly the sort of thing one of the lesser-known artists currently topping the charts—an artist without Timberlake's extraordinary track record—would know better than to do.

IN THE TIME since Timberlake's last No. 1 single, 2016's ode to happiness "Can't Stop the Feeling!," the top of the charts has been taken over by artists, from the Chainsmokers to Rae Sremmurd to Post Malone, about whom little is known aside from their names and latest song. All of them seem to function like the cell-phone ringtones set to a frequency only audible to young

'You can't change what's happened, but you can move forward and learn from it.'

JUSTIN TIMBERLAKE, to Beats 1, on appearing at the Super Bowl now after his 2004 appearance with Janet Jackson caused controversy

ears, and none share Timberlake's laser focus on building a career brick by brick—which accounts for their appeal. It's impossible to imagine any of these upstarts performing at a Super Bowl in 20 years, which is exactly why their fans love them right now.

Indeed, part of what makes Super Bowl halftime shows—and the sort of blue-chip artists who perform them—so effective is the degree to which cool has been taken out of the equation. Katy Perry wanted to make you shed a kitschy tear when she performed "Firework" with fireworks exploding above her; Lady Gaga made you want to gasp at her exertions as she worked her way through "Bad Romance." And Beyoncé, both times, was only in competition with herself. Timberlake has their rigorous commitment to showmanship—something entirely absent from the new, loose generation of demi-stars. But he lacks their ability to take swagger out of the equation, to admit that his fan base may now contain more parents than kids. (In this, he is experiencing a similar identity crisis to the one suffered

by recent halftime-show performer Madonna. But to her credit, she brings to her age-defying singles a bubbly, blithe confidence, not just gritted-teeth willfulness.) There's an anxiety underneath "Filthy" and "Supplies," a simultaneous desire to prove how much Timberlake the man has grown and to show that Timberlake the boy bander can still reign on the dance floor.

For Timberlake's own sake, it's worth hoping that the rest of *Man of the Woods* is the roots-country album its packaging and rhetoric promises. For so long, he has been one of pop's great generalists, crafting music and a career that were neither offensive nor banal; they stood for little other than virtuosic musicianship and generally pleasant themes, well-delivered. Now, in trying to find pop music's center, Timberlake has shot videos that strive to be funny and to be politically engaged. Neither approach has worked.

But something so many of the fleeting younger hitmakers share and that Timberlake has never demonstrated before is the sort of specificity that comes from real idiosyncrasy. After being everything to everyone for so long, Timberlake's next success, if it arrives, will come from being himself. That it's far from pop's center is true only in that pop, fragmented beyond repair, has no center. If he's chasing the upstarts who have stolen his crown, he will find them at the margins—not in the middle. □

GETTY IMAGES (6)



KATY PERRY
Super Bowl XLIX (2015)

Riding in on a lion, exiting on a shooting star and meeting Left Shark in between, Perry showed off her mettle and her vibrant, creative wit.



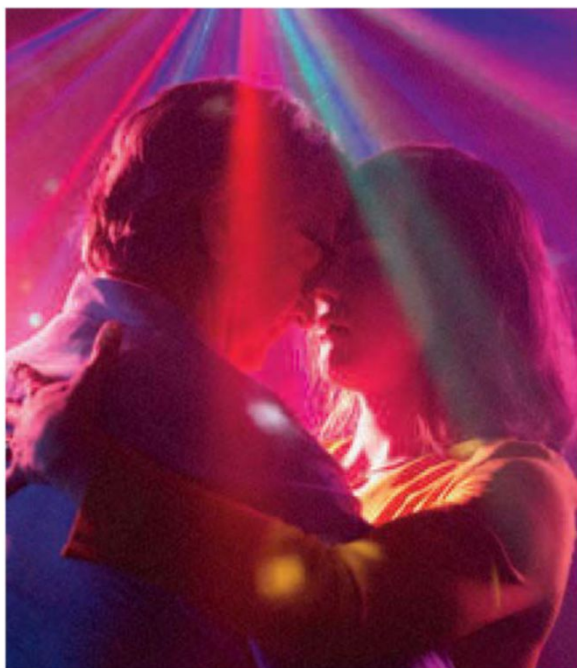
BEYONCÉ
Super Bowl 50 (2016)

Coldplay was the headliner, but Beyoncé stole the show with a sharp message and a provocative, Black Panther-inflected new image.



LADY GAGA
Super Bowl LI (2017)

Coming off a vexed few years, Gaga restored her reputation as pop's hardest worker with a gravity-defying, full-throated set.



Daniela Vega: *Fantastic* in Sebastián Lelio's Oscar-nominated *A Fantastic Woman*

MOVIES

Walk a mile in the shoes of *A Fantastic Woman*

FOR ANYONE STRIVING TO BE SENSITIVE TO questions of gender identity, the world has grown trickier. We need to respect those who are different from us, yet even acknowledging differences runs the risk of segueing into a kind of discrimination. This is where movies can help. In *A Fantastic Woman*, from Chilean director Sebastián Lelio, trans actor Daniela Vega plays a waitress and singer, Marina, whose older lover, Orlando (Francisco Reyes), suddenly falls ill. She rushes him to the hospital, where he dies almost immediately. In the aftermath, Marina must contend with more than her own grief when the hospital staff alerts the police. Orlando's family, suspicious and cruel, blocks her from his funeral. At issue is the fact that Marina is still considered, legally and by those who have neither eyes nor a heart, a man.

It's no surprise that Lelio—director of the 2013 film *Gloria*, featuring the marvelous Paulina García as a 50-plus woman navigating the dating scene—would know how to craft a film as generous and tender as this one, an Oscar nominee for Best Foreign Language Film. And Vega's performance is a marvel. To look at her face—to bask in the shadowy radiance of its joy, frustration and anguish—is to understand what it's like to live in Marina's skin. You can't ask more of a performer, or of a movie.

—STEPHANIE ZACHAREK

QUICK TALK

Will Forte

The actor, writer and Saturday Night Live alum, 47, plays National Lampoon co-founder Doug Kenney in the new Netflix movie *A Futile and Stupid Gesture*. He's also partway through Season 4 of his Fox comedy series *The Last Man on Earth*.

Did the *National Lampoon* magazine or movies play a role in your comedic education? *Caddyshack* was one of my all-time favorites. My dad went to Dartmouth and would always say, “*Animal House* was about my fraternity.” I was able to fact-check my dad's stories and found he might have fudged it a bit.

Your wigs in the movie are pretty epic. I had to shave the top of my head but keep the hair in the back a little longer, so I had to walk around with a pretty serious case of male-pattern baldness. It's not a good look for me. Some people can look very good with that, but I need all the help I can get.

The *National Lampoon* offended pretty much everyone at some point. Do you think modern comedy is too politically correct? Things were way less PC back then. You go through comedy trying to figure out what your thing is. You experiment with saying things that are shocking to get a laugh. I'm probably more on the weird side than the shocking side. I think you can go a little overboard, but I'm happy with trying to do comedy in a way that doesn't disrespect people.

After four seasons of *The Last Man on Earth*, what has been the biggest lesson of running your own show?

There are a million. One that I haven't learned is, I hold on to everything a little too tight. I'm a little OCD and control-freakish. Also trying to figure out the balance of work and life. This is my dream, but is it worth it to not ever see your family? I drive myself crazy and just try to get out there something that I'm proud of. Which is crazy to say, because it's 50% fart jokes. —ELIZA BERMAN

ON MY RADAR

WONDER

“Jacob Tremblay is great. I got to meet him because he [was] in one of our episodes. I'm always rooting for him. He's such a sweet guy.”



A FANTASTIC WOMAN: SONY PICTURES CLASSICS; FORTE: GETTY IMAGES; ALTERED CARBON: NETFLIX

STREAMING

Altered Carbon gets stuck in an old future

AS A GENRE, SCIENCE FICTION HAS never been smarter—especially as a more diverse array of characters have come to populate some of the most successful stories told onscreen. Last year's *Star Trek* prequel cast a black woman as its lead, while the box office grosses of the new *Star Wars* films proved to studios that audiences are hungry to see female heroes like Daisy Ridley's Rey. Before playing Rey's companion Finn in those films, John Boyega broke out in *Attack the Block*, a movie that skewered class divisions in England as a group of teens defend their housing projects from an alien invasion. And last year's X-Men film, *Logan*, served as a powerful allegory on immigration wrapped up in a slickly violent package. Netflix, which has earned accolades for its dystopian drama *Black Mirror*, had the opportunity to contribute to the genre's evolution with a buzzy—and reportedly very expensive—new epic, *Altered Carbon*.

But despite its futuristic setting, the show's treatment of race, gender and class feels downright retrograde. *Altered Carbon*, a hard-boiled-detective story with a stylized, *Blade Runner*-lite aesthetic, begins with an intriguing conceit plucked from a 2002 Richard K. Morgan book of the same name: in the year 2384, wealthy humans can transfer their consciousness to new bodies, or "sleeves," every time their old body is killed. The gap between the haves and the have-nots—or rather, the immortal and the mortal—has widened significantly. The bored bourgeoisie occupy themselves with gruesome entertainment, like forcing a married couple to fight to the "skin death."

Rather than explore the ethical implications of this technology, *Altered Carbon* focuses on a mystery. Someone has attempted to murder a wealthy man, Laurens Bancroft, by both destroying his sleeve and hacking the cloud system that backs up his consciousness. Bancroft wakes up the mind of an old



Tricks up his sleeve: Takeshi Kovacs (Kinnaman) is reborn in Netflix's *Altered Carbon*

soldier named Takeshi Kovacs to solve the crime, gifting him a new sleeve.

For viewers, the mystery may instead be why Takeshi's sleeve takes the form of Swedish actor Joel Kinnaman (*House of Cards*) playing an Asian man living in a white guy's body. That's how it's written in the book, but onscreen it's especially problematic. The creators would have done well to instead cast an Asian actor as the reborn Takeshi, avoiding the same whitewashing controversy that plagued last year's *Ghost in the Shell*. In that adaptation, Scarlett Johansson played an Asian woman's consciousness inside a white android.

In typical noir style, Takeshi spends much of his investigation questioning women in strip clubs. And while there's plenty of male nudity in the show—Kinnaman's exposed rear should get

its own screen credit—men in this world appear naked while in positions of power: a rich man showing off his expensive young "skin," or a naked rebel engaging in hand-to-hand combat. The nude women in this show are bruised prostitutes, naked corpses dumped in the sea and femme fatales. A few generically kickass women, like a feisty rebel (*Hamilton*'s Renée Elise Goldsberry) and a foulmouthed cop (Martha Higareda), round out the cast, but their characters are thin. The show's opening credits, backdropped by a snake slithering up a naked woman's body, serve as a warning: this is a Bond-like pastiche that delivers the sex and violence of 007 without any of the style or substance.

Stick with *Altered Carbon* and viewers will eventually be rewarded with a more compelling story from Takeshi's past. In flashbacks, Takeshi (now played by Will Yun Lee) and his sister join a group of rebels led by Goldsberry's Quellcrust Falconer. The doomed rebel leader dreams of a more egalitarian future. She would have been disappointed by this one. —ELIANA DOCKTERMAN

'I personally believe that violence against women in our society is not going anywhere.'

LAETA KALOGRIDIS, showrunner of *Altered Carbon*, in an interview with io9

ALTERED CARBON will begin streaming on Netflix on Feb. 2



The novelist was long-listed for the Man Booker Prize in 2017 for *Swing Time*

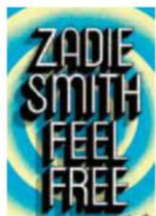
ESSAYS

Zadie Smith, Renaissance woman

IN AN ESSAY IN HER NEW COLLECTION, *Feel Free*, Zadie Smith writes, “When I find myself sitting at dinner next to someone who knows just as much about novels as I do but has somehow also found the mental space to adore and be knowledgeable about opera, have strong opinions about the relative rankings of Renaissance painters, an encyclopedic knowledge of the English Civil War, of French wines—I feel an anxiety that nudges beyond the envious into the existential. How did she find the time?”

Smith is being modest. As anyone who picks up *Feel Free* will learn, the award-winning writer is not only well informed but also refreshingly insightful on any number of topics, from Martin Buber to Justin Bieber. Most essays in this collection have already appeared in publications like the *New York Review of Books* and *Harper’s*, and include reviews, profiles and autobiographical essays. Smith, 42, famously completed her first novel

White Teeth while she was still in college, and often writes about her upbringing by a white British father and a black Jamaican mother in northwest London. (Her fourth novel was titled *NW*.) In *Feel Free*, Smith reflects on the financial differences between her childhood and her adult life. Sitting in an Italian



RETURN TO NONFICTION

Feel Free is Smith’s second essay collection; her first was 2009’s *Changing My Mind*.

piazza, watching an African street vendor flee from cops past a Renaissance statue of a Moor, she writes, “I saw myself as some kind of a decorative Moor . . . a Moor of leisure, a Moor who lunches, a Moor who needn’t run for her livelihood through public squares. A historically unprecedented kind of Moor. A late-capitalism Moor.”

Reviewing a book by her countryman Geoff Dyer, she writes that she is most struck by “his tone. Its simplicity, its classlessness, its accessibility and yet its erudition—the combination is a trick few British writers ever pull off.” Without question, Smith is one of them. —SARAH BEGLEY

FICTION

Suffering in silence, and out loud

LISA HALLIDAY’S DEBUT novel, *Asymmetry*, begins with a lopsided affair—a perfect vehicle for a story of inexperience and advantage. This romance is between Alice, a young woman in publishing, and Ezra Blazer, a literary éminence grise, who resembles a certain real-life novelist who is chronically on Nobel wish lists. The details of their relationship are sometimes painfully precise, but Alice’s emotions are mostly left to guesswork.

Just as there is something aslant between Alice and Ezra, there is asymmetry between the first half of the book and the second, which focuses on Amar Ala Jaafari, an Iraqi-American man detained at Heathrow Airport. The shift in subject matter complements one in style: the writing is now explicitly emotional, and so far from the understatement of the first half that you might think it was a different book written by another author. Which is Halliday’s delicious trick.

As Ezra says at the end, his “young friend” has written a “veiled portrait of someone determined to transcend her provenance, her privilege, her naiveté.” Alice and Amar may be naive, but Halliday is knowing—about isolation, dissatisfaction and the pain of being human. —S.B.



STRONG DEBUT

Halliday, who lives in Milan, has already won a Whiting Award for *Asymmetry*.

SMITH: GABRIELA HERMAN—THE NEW YORK TIMES/REDUX; DICAMILLO: CATHERINE SMITH

YOUNG READERS

The importance of darkness in kids' books

By Matt de la Peña

THIS PAST FALL, A CHILD AT AN ELEMENTARY SCHOOL IN Huntington, N.Y., left me speechless. After speaking to an auditorium full of students about books and the power of story, I fielded questions. The first five or six were the usual. How long does it take to write a book? Am I rich? (Ha-ha!) But then one girl stood and asked something different. “If you had the chance to meet an author *you* admire,” she said, “what would *you* ask?”

For whatever reason, this girl’s question, on this morning, cut through any pretense that might ordinarily sneak into an author presentation. The day before, a man in Las Vegas had opened fire on concertgoers. Tensions between the U.S. and North Korea were at a boiling point. Puerto Ricans were still suffering. I studied all the fresh-faced young people staring up at me, trying to square the light of childhood with the darkness in our current world. But all of this had little to do with the question—so I just stood there in awkward silence, the seconds ticking by.

Eventually, I gave some pre-packaged sound bite, and then our time was up. Hours later, as I sat in a crowded airport, I was still thinking about the girl’s question. What *would* I ask an author I admire? Kate DiCamillo came to mind. Sandra Cisneros. Christopher Paul Curtis. I wanted a do-over. And as my plane reached its cruising altitude, it came to me. If I had the chance to ask Kate DiCamillo anything, it would be this: Is the job of the writer for the very young to tell the truth, or preserve innocence?

Prior to the publication of our new picture book, *Love*, illustrator Loren Long and I found out that a major book-industry gatekeeper would not support the title unless we “softened” a certain illustration. In the scene, a despondent young boy hides beneath a piano with his dog while his parents argue. There is an empty old-fashioned glass resting on the piano. The feedback our publisher received was that the moment was a little too heavy for children. And it might make parents uncomfortable. This discouraging news

led me to re-examine the purpose of my manuscripts. What was I trying to accomplish? What thoughts did I hope to evoke?

A few weeks into the writing of the book, my wife and I received some bad news, and my daughter saw my wife openly cry for the first time. This rocked her little world, and she began sobbing and clinging to my wife’s leg, begging to know what was happening. We settled her down and talked to her and eventually got her ready for bed. As my wife read her a story about two turtles who stumble across a hat, I studied my daughter’s tear-stained face. I couldn’t help thinking that a fraction of her innocence had been lost that day. But maybe these episodes of loss are as vital to the well-adjusted child’s development as moments of joy. Maybe instead of anxiously trying to protect our children from every hurt and heartache, our job is to support them through such experiences. To talk to them. To hold them. And maybe this idea also applied to my manuscript.

Loren and I ultimately fought to keep the “heavy” illustration. Aside from being an essential story beat, there’s also the issue of representation. In the book world, we often talk about the power of racial inclusion—and in this respect we’re beginning to see a real shift in the field—but many other facets of diversity remain in the shadows. An uncomfortable number of children out there right now are crouched beneath a metaphorical piano. There’s a power to seeing this largely unspoken part of our interior lives represented too. And for those who’ve yet to experience that kind of sadness, I can’t think of a safer place to explore complex emotions for the first time than inside the pages of a book, while sitting in the lap of a loved one.



AN AUTHOR REPLIES

Kate DiCamillo, who wrote *Because of Winn Dixie*, among other new classics, happened to read this essay on TIME.com and was moved to write a public response. You can read her answer to his question about innocence and honesty in children’s literature at time.com/dicamillo



De la Peña is the author of *Love*

Anish Kapoor The British-Indian sculptor behind public installations like Chicago's *Cloud Gate* talks personal history, political art and the darkest material in the world

You won the 2017 Genesis Prize, awarded to renowned Jewish individuals. Why did you recently donate the \$1 million prize to refugee causes? My father's family was forced to leave Lahore for Delhi during the 1947 partition of India. My mother's family were Baghdadi Jews, and they fled Iraq in 1924. Migration is part of my history. But look, in the face of tens of millions of refugees, my donation is less than a drop in the ocean. I hope it signals that there is dignity in the lives of those on the move.

Does politics inform your art? I am not interested in agitprop. However, I think ambiguity can be read in a number of ways. I decided to show *Descension*—a whirlpool I created nearly five years ago—in Brooklyn Bridge Park in 2017 to draw attention to a certain state of America. I did not declare it. Otherwise the work is enslaved to a political context and has no bigger life.

Why is that? The best work has numerous layers of meaning. We see it in great poetry, like W.H. Auden's 1947 poem *The Age of Anxiety*, where the war is never described. *The Age of Anxiety* could be this age, it could be all ages—the poem lives on by not being banal.

But you have been outspoken about some things. What I am seeing is an entrenchment of so-called national identity, whether it is "America first" or Brexit. In India, the current administration has entrenched caste and religious division, and given it the language of nationalism. I have artist friends who can't paint a nude picture and show it in India because it offends Hindu values. What crap is this? We have to rant and rave and insist on freedom.

You experienced that in 2015 with your installation at the Palace of Versailles. What was that like? We live in cities where every other object has phallic implications. The moment

someone said my work at Versailles looked like female genitalia, it became a site for abuse. What does that say of us culturally? The first time it was scrawled with anti-Semitic graffiti, I cleaned it off. The second time I decided to make the graffiti part of the work.

You were sued for keeping it on. The local government's right-wing deputies took me to court for displaying anti-Semitic material, and we lost. I saw the former French President François Hollande at the time and said, "You need to stand up and declare that cultural objects cannot be the butt of political motives across the world." And he said, "No, Mr. Kapoor, I can't do such a thing, but you must. Sorry." That was pathetic.

How did you find the world's blackest man-made material, Vantablack?

Around three years ago, I read about Ben Jensen, who claimed to have made "the blackest black in the universe." This material absorbs 99.8% of light, whereas a black hole absorbs all light. I called him up and said, "Look, can we do some work together?" And he was rather skeptical. Vantablack was used in the defense industry and had no visual application. Bless him, he eventually came with me on this adventure.

You faced a backlash in 2016 for gaining exclusive rights to use Vantablack for artistic purposes. It is exclusive because we are trying to solve huge technical problems. It is not a paint that comes out of a tube; it's toxic, and once the nano-material is placed on a surface and "grown" in a reactor, it becomes incredibly fragile—you can hardly breathe near it. I hope that within the next year the work will be ready to put into the world.

—TARA JOHN

'I have artist friends who can't paint a nude picture and show it in India because it offends Hindu values. What crap is this? We have to insist on freedom.'



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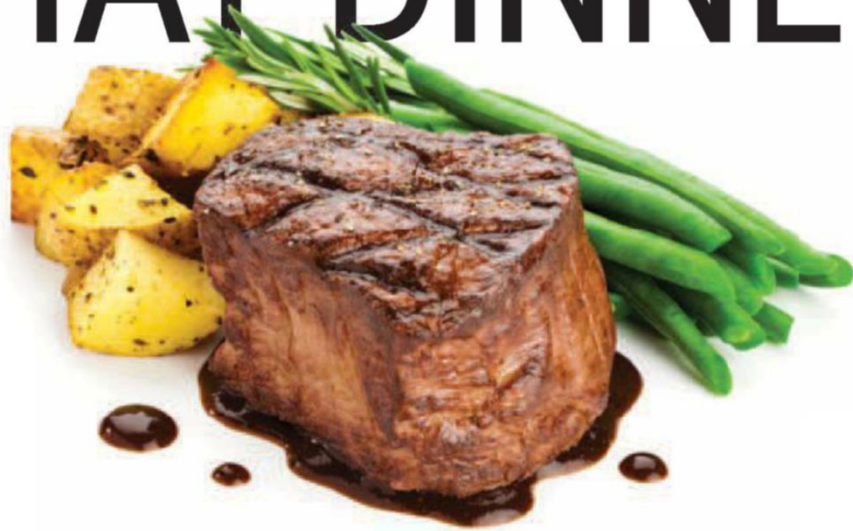
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