

MARCH 24, 2025

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How We Chose the World's Greatest Places 2025



The world is smaller than ever. The global proliferation of video on social media has made other cultures more accessible, tempting travelers to venture farther and do more, whether to experience what they saw online or to find something novel and authentic beyond the grid. The tourism industry rebounded to pre-pandemic levels in 2023, and surged ahead in 2024, setting consumer-spending records and accounting for an estimated 9% to 10% of global GDP, and this year, it looks to pull in even more money.

For our annual list of the World's Greatest Places, TIME sought out one-of-a-kind spots and experiences around the globe. In Lima, Peru, we found [AWA](#), a restaurant popularizing traditional Amazonian cuisine. In Zimbabwe, locally owned luxury resort [Mbano Manor Hotel](#) overlooks Victoria Falls, just outside Zambezi National Park. In Flagstaff, Ariz., [The Lowell Observatory](#)—famous as the site of Pluto's discovery—now features an open-air planetarium, where visitors can get live commentary on that night's sky from the comfort of heated seats. And chugging through Europe, the [L'Observatoire](#) carriage on the Venice Simplon-Orient Express—designed with precise detail by French artist JR, complete with puzzles and hidden surprises, and observation

windows for taking in the scenery—is part of a resurgence of luxury train travel.



Buy your copy of the World's Greatest Places issue [here](#)

Each year, TIME solicits nominations of places—including hotels, cruises, restaurants, attractions, museums, parks, and more—from its international network of correspondents and contributors, as well as through an application process, with an eye toward those offering new and exciting experiences. The result: 100 extraordinary destinations to stay and to visit this year.

[Browse the entire list here. Bon voyage!](#)

<https://time.com/7263823>

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How Lewis Hamilton Finally Got His Ferrari Red

Gregory is a senior sports correspondent at TIME. His work has been cited in the annual Best American Sports Writing anthology nine times. His stories have won awards from the U.S. Basketball Writers Association and the American Academy of Orthopaedic Surgeons, and his work was named a finalist for Deadline Club and Mirror awards for excellence in magazine writing and reporting on media, respectively.



On Valentine's Day, Lewis Hamilton enters a sprawling studio space in northwest London and intently stares at the magnificent creature standing off in the distance.

“Sh-t,” says Hamilton to no one in particular. “I’m nervous.”

Soon enough, however, the [seven-time Formula One world champion](#) overcomes his anxiety and is standing face-to-face with a shiny black stallion named Aroma. He pets his nose, massages his neck, generally spreads his hands all over Aroma’s thick coat. He is doing his allergies, the source of his initial fear, no favors. But Hamilton, a literal knight, is enamored, peppering the horse master with questions. Where’s Aroma from? (Portugal.) Can he sleep lying down? (Yes.) How much does he weigh? (About 1,300 lb. Only a few hundred less than Hamilton’s race car.)

He’s throwing health caution to the wind in order to commemorate his much ballyhooed move from Mercedes, where he won six of his seven F1 driver titles, to the venerated Scuderia Ferrari HP race team: a photo of himself positioned in front of an actual black horse standing on his hind legs, mimicking the Italian automaker’s famous logo. Like Hamilton, Aroma—who is retired but still does the occasional photo shoot—has an impressive resume, including appearances in *Robin Hood* and *Maleficent*, ads for Hermès and Burberry, and a [Dua Lipa](#) video; he is joined by Theo, a stunt horse you might recognize from *Bridgerton*, among other things. “This is going to be such an iconic picture,” says Hamilton while trying on outfits for the shoot. “Super timeless.”

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[Buy a copy of the Lewis Hamilton cover here](#)

That depends, of course, on what comes after. At 40, Hamilton is aiming to not only win a record eighth F1 driver title—cementing his status as the greatest F1 driver to ever live and ending the longest-ever championship drought for the most storied race team on the planet—but also fulfill a lifelong dream. His move to Ferrari, announced before the 2024 season, was shocking worldwide front-page news: he had suited up for Mercedes for more than a decade, helped build a more diverse workforce there, and hoped to someday acquire an ownership stake in the team. It seemed he would ride into the sunset with the Silver Arrows.

Hamilton had other ideas. “You can’t stand still for too long,” Hamilton tells TIME, in his first in-depth interview about his decision to leave Mercedes for Ferrari. “I needed to throw myself into something uncomfortable again. Honestly, I thought all my firsts were done. Your first car, your first crash, your first date, first day of school. The excitement I got by the idea of, ‘This is my first time in the red suit, the first time in the Ferrari.’ Wow. Honestly, I’ve never been so excited.”

During the 2024 F1 season, Hamilton, out of respect for Mercedes—with whom he was still under contract and racing—didn’t talk much about the switch. The situation was awkward and unprecedented. (Picture [LeBron James](#) suiting up for the Los Angeles Lakers knowing he’d be playing the following year for a rival, like the Boston Celtics. Exactly. It would never happen.) All sides appear to have handled it as professionally as possible: Hamilton ended a 945-day losing streak by winning his hometown race, at Silverstone in Britain, in July before winning again in Belgium three weeks later. Meanwhile Carlos Sainz, the Ferrari driver whom Hamilton is replacing this year, helped Scuderia finish second in the constructor, or team, standings, just a few points behind 2024 champion McLaren.

Hamilton’s road to the title record won’t be easy. Some critics have questioned Ferrari’s strategy of signing an aging driver, whose best days could very well be in the rearview. They’ve wondered whether Ferrari’s more interested in marketing than winning—Hamilton is still F1’s most popular driver, by a mile, as well as an internationally known cultural figure with a hand in fashion, film, and business. (He’s co-chairing the Met Gala in May alongside [Colman Domingo](#), Pharrell Williams, A\$AP Rocky, and Anna Wintour; LeBron James is honorary chair.) Plus, a slew of younger drivers like reigning four-time champion Red Bull’s [Max Verstappen](#), 27; McLaren’s Lando Norris, 25; and Hamilton’s new Ferrari teammate, Charles LeClerc, 27, could keep him off the top of the podium.

“The old man is a state of mind,” says Hamilton. “Of course your body ages. But I’m never going to be an old man.”

The 2025 F1 campaign, which kicks off in Australia on March 16, comes laced with intrigue. Hamilton sits at the epicenter. Ferrari is religion in Italy; when the team wins an F1 race, the bells of the Church of St. Blaise in Maranello, the small city near Bologna that houses Ferrari headquarters, ring in celebration. So Hamilton’s quest to end Ferrari’s agony, while breaking the individual title record set by [Michael Schumacher](#)—who won five straight titles with Ferrari from 2000 to 2004—will be appointment theater. Meanwhile, Hamilton is co-producing, along with Jerry Bruckheimer and others, an F1 movie, aptly called *F1*, that is almost literally a Brad Pitt vehicle. The film, which comes out in June, plus a competitive race for the championship, could deliver a jolt to the sport’s popularity, especially in the U.S., where [F1 has boomed](#) but flattened out a bit, given Verstappen’s predictable dominance.

A Hamilton championship in red, in the twilight of his racing life, would be nothing less than one of the greatest mic-drop moments in sports history. “I don’t know if I can find an adjective to describe that,” says American racing legend Mario Andretti, the 1978 F1 champion who raced for Ferrari in the early ’70s. “Nothing is missing in his career. But oh man, how better can you describe your career after that? Oh my God, he’d be the king of all kings.”

Two weeks before the stallion photo shoot, Hamilton is striking golf balls into a simulator at an indoor club on the banks of the Thames. (He has a pronounced slice.) He doesn’t golf much these days, but Hamilton being Hamilton—a man who has taken full advantage of this sport’s jet-setting ways to become one of the world’s most prominent collectors of influential people—he last played a round with actor Tom Holland, a.k.a. Spider-Man. His other golf partners have included Samuel L. Jackson and Kelly

Slater, the surfing GOAT. He was once supposed to play with another GOAT, Michael Jordan, but when Hamilton got to the course, he says, Jordan “didn’t end up being there.”

As we’re taking swings, I ask Hamilton if he’s checked out TGL, the indoor golf competition founded by Tiger Woods and Rory McIlroy that just launched its first season in the U.S. He hasn’t. I explain some of the particulars—it’s a team league, ESPN is showing it on weeknights—before it sounds familiar. But Hamilton is involved with so many projects—movies, art, fashion lines, the Denver Broncos, a pet-food company, a plant-based burger chain with Leonardo DiCaprio—that he can’t quite remember whether he poured some money into this new outfit. “I might have,” he says, with a laugh. (He did.)

Hamilton takes a break from golf, reclines on a couch, and orders a latte before sharing the story of how he arrived at this moment. It began a long time ago, when he was a kid growing up in public housing north of London. His first Ferrari memories have stuck with him. He would drive Schumacher’s car in racing video games. The Ferrari replica featured in *Ferris Bueller’s Day Off*—the 1961 250 GT California Spyder—is still, to this day, Hamilton’s favorite. “That’s the ultimate retirement car,” he says. “I can just see myself with Roscoe, him with a scarf and goggles in the seat next to me, driving down the PCH.” (Roscoe, Hamilton’s pet bulldog—who, like his owner, is vegan—has an Instagram account with 1.1 million followers.)



McLaren signed Hamilton to a driver's deal in 1998, when he was 13. In 2006, Hamilton won the championship in what is now known as Formula Two. "I did have the bit of red on my helmet," he says. During that F2 season, and the one prior in F3, Hamilton raced for team principal Frédéric Vasseur, whose management style and ability to recruit top engineering talent to his lower-level operation impressed the young driver. Hamilton figured Vasseur would be a F1 leader one day.

Hamilton won his first F1 championship in 2008, his second season with McLaren. He competed there for four more seasons before jumping, in 2013, to Mercedes, a middling team that Hamilton lifted to championship heights. Through it all, Hamilton maintained cordial relations with Ferrari leadership. He'd walk past the Ferrari garage at races, say "*ciao*" to the mechanics, and hear them say "*vieni Ferrari*" (come to Ferrari). Around 2018, Hamilton met with Ferrari chairman John Elkann. Both sides expressed a desire to see Hamilton in red. But by the end of the 2020 season, Hamilton had four straight championships with Mercedes. He had no reason to jump ship. "If I'm really honest, I had accepted the fact that I'm probably not going to drive for Ferrari," says Hamilton. "I was OK with that."

After the 2021 season, Hamilton nearly walked away from racing. He—and millions of his fans—felt his record eighth driver title was stolen from him, when during the final race of the year, in Abu Dhabi, an official’s controversial decision allowed Verstappen to overtake Hamilton in the last lap and clinch his first title. Hamilton ultimately refused to quit without a fight, but he failed to win a single race as Verstappen cruised to another pair of championships. Hamilton signed a two-year extension with Mercedes in the summer of 2023, but the deal allowed him an option to leave after one year.

Meanwhile, true to Hamilton’s prediction, his de facto coach in the minors, Vasseur, took over an F1 team in 2016. Before the 2023 season, he was hired for a new team-principal gig—at Ferrari. Vasseur got wind of the loophole in Hamilton’s new deal—“He told me at one stage,” says Vasseur. “Good news”—and aimed to sign an agreement with Hamilton before the 2024 season. He wanted his drivers under contract last year, LeClerc and Sainz, to be free of whispers regarding their status. So while Hamilton was at his home in Colorado in December 2023, he got a call from Vasseur asking him to join Ferrari starting in 2025. “I remember getting off the phone and, like, almost shaking,” says Hamilton, who’s now almost shaking while recalling the moment. “I was like, Oh God!”



He told a friend who was with him about the call; they both sat in silence on a bathroom floor in shock. “I was like, Holy sh-t,” says Hamilton. “I literally just signed with Mercedes.” Breaking up with a team that felt like family was far from a no-brainer. And he didn’t have much time to decide. “It was a lot to take in, and my emotions were really high,” says Hamilton. “So I honestly had to go for a walk.” He left the house for an hour to decompress.

Hamilton then spent a few days meditating. He was leaning toward Ferrari. “My eyes felt really calm and present,” he says. “This is the right thing for me.” When he’d switched from McLaren to Mercedes all those years ago, he solicited too much advice. Here, he confided in just a few family members and trusted friends. “One cannot discount the Ferrari influence on the sport, especially through the eyes of a child,” says Mellody Hobson, co-CEO of Ariel Investments and the former chair of the Starbucks board, who’s very close to Hamilton. During negotiations, after every phone call with Ferrari, he’d jump around like a little kid.

“We’re in a time of reimagining the future, reimagining what really dreaming is about,” says Hamilton. “I’m going to Ferrari, man, and that’s the biggest dream.”

Not everyone is so thrilled. The day after he informed Mercedes team principal Toto Wolff of his decision was Hamilton’s annual paintball outing with his race-team mechanics. When he arrived, he was too nervous to get out of his car. “These are guys I’ve been with so many years,” says Hamilton. He eventually stood on top of a table to address his decision. His squad appeared understanding and supportive. But they let him have it in paintball. “They lit me up, hard,” says Hamilton. “It was so painful.” At one point, he was hiding behind a barrel shooting at the other team when he was struck from behind. A member of his own squadron had nailed him. “Freaking guy,” says Hamilton.

They laughed about it afterward and managed to get through the season. “There is no bad blood,” says Hamilton. “Absolutely not. We won so many championships.” (Mercedes declined to comment for this story.) Andrea Kimi Antonelli, an 18-year-old from Bologna, will take Hamilton’s place in the Mercedes lineup. “They have all the ingredients to win world championships, and they will win more world championships,” says Hamilton of Mercedes. “I have no doubt.”



In a book published in November—*Inside Mercedes F1: Life in the Fast Lane*—Wolff says Hamilton’s move “helps us because it avoids the moment where we need to tell the sport’s most iconic driver that we want to stop ... We’re in a sport where cognitive sharpness is extremely important, and I believe everyone has a shelf life.” The comments caused a stir, and Wolff clarified that Hamilton is still “very sharp.”

Hamilton insists Wolff’s remark doesn’t bother him. He points to athletes like [Tom Brady](#) and [LeBron James](#) who’ve achieved success into their 40s. “Don’t ever compare me to anybody else,” says Hamilton. “I’m the first and only Black driver that’s ever been in this sport. I’m built different. I’ve been through a lot. I’ve had my own journey. You can’t compare me to another 40-year-old, past or present, Formula One driver in history. Because they are

nothing like me. I'm hungry, driven, don't have a wife and kids. I'm focused on one thing, and that's winning. That's my No. 1 priority."

He also dismisses criticism from the broader racing community. Former F1 team owner Eddie Jordan said in a December podcast that it was "absolutely suicidal" for Ferrari to drop Sainz from its roster, given the strong working relationship between him and LeClerc. (Sainz will now race for Williams.) "I've always welcomed the negativity," says Hamilton. "I never, ever reply to any of the older, ultimately, white men who have commented on my career and what they think I should be doing. How you show up, how you present yourself, how you perform slowly dispels that."

Others, including former Ferrari driver Jacky Ickx, have suggested that Ferrari has signed Hamilton primarily for his commercial value. "I think it's really unfair to Lewis, some of the comments saying, 'This is a marketing operation,'" says Elkann, the Ferrari chairman. "Truth said, Lewis doesn't need that. Ferrari doesn't need that. What we need to do is win championships and do great things on the track. If that happens, what we can do outside of the track, in some ways, takes care of itself. There's unlimited possibilities."

The pressure, internal and external, Hamilton faces is immense. No F1 team owns more constructor titles than Ferrari, but they last won in 2008. Ferrari also owns the driver record, with 15, but the last Ferrari driver to win an individual crown was Kimi Raikkonen, in 2007. Ferrari fans are so passionate that they go by their own name, the tifosi. At the Ferrari museum, not far from the team's 9.3 million-sq.-ft. campus in Maranello, Italy, pilgrims often start crying, or propose marriage, in the Hall of Victories, which showcases the team's championship cars and more than 100 trophies.

One night in early February, at the Ristorante Montana, which displays a trove of Ferrari memorabilia in its dining room, Andrea Puttini, a seller of building materials from Naples, is outside enjoying a smoke. “In Italy, we say it’s not important if you speak bad or speak good about something,” says Puttini. “The importance is that you are talking about this. And Hamilton, just for being here, he lets us talk all over the world about Ferrari.”

Hamilton connected with as many of his new co-workers as possible during his first visit to Maranello in January, shaking hands until his arm was pulsating. “The amount of *ciaos* and *grazies* and *piaceres* I was saying, aye aye aye,” he says. After his first test run, he went out to greet the supporters lining a bridge that overlooks Ferrari’s private racetrack. A few weeks later, a fan decked out in a red Ferrari shirt and cowboy hat cut down a tree to allow the tifosi a better look at a Hamilton practice.

Hamilton first spotted himself in a Ferrari suit while in, of all places, the loo; he was washing his hands and looked up into the mirror. “I’m in red, I’m like, Whoa!” he says. He paused for a moment to take in the reflection. He liked what he saw. “The suit looked so good on me,” says Hamilton, laughing. “I’m like, Damn.” When seated in a Ferrari race car for the first time, he closed his eyes when the engine started and smiled. “The vibrations are different,” he says. He let them course through his body. “You just wonder how that feels,” Hamilton says. Now he knows. “It’s a really, really special moment.”



Still, Hamilton is well aware that Italian sports fans have not always been so welcoming of Black athletes like himself. He competed in karting races there in his younger days, starting at around 12, and experienced racist abuse, just as he had in England. He prefers not to go into details. “I don’t want to dwell,” he says. But he’s heard the racist chants directed at Black soccer players in particular. “I’m not going to lie, it definitely crossed my mind when I was thinking about my decision,” he says. “Like in so many things, it’s often such a small group of people that set that trend for many. I don’t think that it’s going to be a problem.”

Ferrari’s diversity—or lack thereof—was Hamilton’s more pressing concern. In the wake of George Floyd’s 2020 murder, as part of the worldwide sports protest movement against racial injustice, Hamilton started the Hamilton Commission to offer

recommendations for more Black representation in U.K. motorsports. Mercedes launched its own diversity initiative in the months that followed and began hiring personnel from underrepresented groups, including Black engineers. “I did think, Oh my God, I’ve finally got a more diverse working environment that we’ve built over time,” says Hamilton. “And now I’m going back to the beginning of my time with Mercedes, where it wasn’t diverse.”

Along with every other F1 team, Ferrari signed a Diversity and Inclusion charter in November. While the new Trump Administration has made a point of attacking diversity—the President has signed a series of executive orders targeting [diversity, equity, and inclusion](#) programs—Hamilton, for one, remains locked in. “I’m not going to change what he does, or the government does. All I can do is try to make sure that in my space, in my environment, I’m trying to elevate people,” he says. “There’s going to be forces along the way that don’t want that, for whatever reason I can’t fathom. That doesn’t stop me. It is a fight that we’ll just keep fighting.” Hamilton is confident that Ferrari is committed to inclusion.

Vasseur, Hamilton’s new boss, agrees that it’s important, though as he fiddles with a binder clip in an office at Ferrari headquarters, where trade secrets are so closely guarded visitors must place stickers over their mobile-phone cameras (red ones, of course), he suggests that it may not be his top goal. “It’s not politically correct, but first is performance,” he says. “I’m keen to go into the direction of diversity and so on. We are doing our best effort. We are trying to push in this direction, but I want to build up the best team.”



I show Vasseur, who hails from France, a photo I found online: it's him and Hamilton some 20 years ago, celebrating a win. He shows me some photos on his own phone, of his children, who are now grown, with Hamilton. He's enjoying the walk down memory lane. But, he says, "We can't be sentimental."

Switching teams is difficult for any driver. The steering wheel, the cockpit, the terminology, they're all different. "I'm literally learning a completely new book," says Hamilton. F1 regulations allow limited practice time in the new car. He's made strides in his Italian, thanks to lessons, but he's by no means fluent. It took Hamilton more than four months to win a race in his first season with Mercedes. What gives Vasseur confidence that Hamilton will accelerate that learning curve?

"I could reply like a book and give you something that you want to write," Vasseur replies. "But at the end of the day, at this part of the season, the feeling, the first time, blah, blah, blah, blah, blah, will be nothing compared to race one in Australia. You will forget about everything that happened before. It's all about pure performance."

While Hamilton swears his devotion to Ferrari, his schedule has remained plenty full. A Fashion Week and red-carpet regular, he

has his own production company, a Dior line, and other enterprises. He says he's in the preliminary stages of developing scripts for a comedy—it doesn't involve racing—and a film pertaining to pets. (That's all he'll offer.) But the biggest thing on the horizon, besides of course the 24 Grand Prix races in the season, is the upcoming *F1* movie.

Tom Cruise had first connected Hamilton with director Joseph Kosinski because Hamilton was interested in an acting role in *Top Gun: Maverick*. Kosinski was ready to bring him on board, but Hamilton was still fighting for championships with Mercedes and couldn't afford the time commitment. Cruise screened the movie, which grossed \$1.5 billion worldwide upon its 2022 release, for Hamilton in London. "I was crying a bit inside," Hamilton says. "Ah, that could have been me!"



So when Kosinski called Hamilton about his *F1* project, Hamilton jumped at the chance to be a producer. Early in the process, he took Pitt, who plays a veteran F1 driver in the film, for a drive around a track near Los Angeles. “He gave Brad the scare of a lifetime in a lap,” says Kosinski. “Brad was clawing at the windows, begging to get out.” Hamilton was also part of the casting process and offered instructive feedback. “The notes are so detailed,” says Bruckheimer. “When you’re going into that next turn, you have the car in second gear, it should be in third. I can hear it. I can hear the sound of it.” He pushed for Hans Zimmer, composer of *The Lion King*, *Gladiator*, *Dune*, and other hits, to score it. His close relationship with F1 CEO Stefano Domenicali, a former Ferrari team principal, helped the filmmakers gain access to F1 tracks and races to shoot scenes. “He opened all those doors for us into that world,” says Kosinski. “We would not have been able to do this without him.”

Hamilton is predicting box-office success. “It’s going to blow away anything that’s ever been done in Formula One before,” Hamilton says. The Netflix behind-the-scenes docuseries, *Formula 1: Drive to Survive*, has been properly credited for expanding F1’s popularity, especially in the U.S. Hamilton believes this movie will compel viewers from all different backgrounds to become fans, or even pursue a career in F1. “Netflix has been huge,” he says. “This is going to be even bigger, on more of a global scale.” While *F1* might not count as art-house fare—“I don’t think we set out for it to be, like, an Oscar-winning movie,” says Hamilton—he’s promising a memorable experience. “The goal is to make people feel good, to bring people in, to inspire people,” he says. “We want you to leave the cinema and be like, ‘Wow, that was freaking wicked.’”



But even with his creative juices flowing, he's as energized as ever to drive. In other words, unlike Aroma, whose presence does not seem to have triggered Hamilton's allergies at all, he has no plans to slow down. "What I can tell you is, retirement is nowhere on my radar," says Hamilton. "I could be here until I'm 50, who knows."

Hamilton believes that he and LeClerc are the strongest team pairing in the sport and that Verstappen is "absolutely" beatable. "I know exactly where the North Star is," says Hamilton. "I know where I need to go. I know how to get there. It's far, and it's going to be tough to get there, but I know I've got all the ingredients, all the people, an amazing team around me. So it's how much you want it. And I can't express to you how much I want it."

Set design by Thomas Bird; styled by Eric McNeal; grooming by Yuko Frederiksson and Angela Rivera; horse wrangling by Steve Dent Stunts; production by Rosco Production

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Trump Uses Big Speech to Spin Alternate Reality of ‘Astronomical Achievements’

Elliott is a senior correspondent at TIME, based in the Washington, D.C., bureau, where he covers national campaigns, elections, and government. He also writes TIME’s politics newsletter, [The D.C. Brief](#).



This article is part of [The D.C. Brief](#), TIME’s politics newsletter. Sign up [here](#) to get stories like this sent to your inbox.

Perhaps the clearest distillation of President Donald Trump’s sprawling first address to the new Congress came Tuesday night when he laid the [premise](#) for making [cuts](#) to Social Security, a program he cast as ripe with fraudulent payments to zombies. It was as disingenuous as it might prove persuasive to those Americans who are cheering for Trump’s race through Washington, torching all he touches.

“Over 130,000 people, according to the Social Security databases, are aged over 160 years old,” Trump asserted. He then added there are 1,041 people over the age of 220. The claims have been

thoroughly [debunked](#), with even his own Social Security chief explaining it is a misreading of an ancient federal database, one that could cost \$9 million to update, and [none](#) of those “people” were getting monthly checks.

But facts were not the point in the speech. This was a night entirely about feelings, and many of Trump’s promises sounded good to his ear with him at the center of the circus.

Car loans’ interest payments to become tax deductible, but only made-in-America vehicles? Sounds good, until you [realize](#) auto production supply chains make that [designation](#) almost impossible.

A citizenship-for-sale scheme for super-rich foreigners? That’s not [something](#) a President can do unilaterally.

Automatic death penalties for those convicted of murdering law enforcement? His existing executive order only [instructs](#) the Justice Department to pursue them, but Congress and the courts are going to have something to say about such instant sentencing.

If everything about this feels overwhelming, that is because it is, and by design. For the last six weeks, Americans have been yanked and ghosted, lurched and launched with a merciless urgency. “Swift and unrelenting action” is how Trump pumped up his record. It was one of the rare completely unspun statements of the evening.

If the [cruelty](#) was the point of the first Trump term, then the chaos is the thesis of the second. As TIME’s Eric Cortellessa [reported](#) going into the evening, Trump’s team was more interested in staging moments to go viral than presenting an operating argument for actually governing. He did not leave the Capitol empty handed. There were plenty of headlines, made-for-TV moments, and memes that partisans of all stripes can exploit.

So much of Washington has been spiraling since Trump returned to town. Every day seems to bring new developments, reversals, and initiatives, each more brazen than the last. Democrats in Congress have watched with confusion, fear, and outrage as Trump has taken steps that have [canned](#) tens of thousands of federal workers, [shut down](#) offices that feed the world's poor and track weather systems, and upended decades of international norms. Nothing has been beyond Trump's boorish reach, not even a Kennedy Center [musical](#) about a shark who befriends would-be prey or, briefly, the [building](#) that houses the American Red Cross.

So as Trump stood under the klieg lights of Congress on Tuesday night and before millions of Americans, he took the next logical step toward a more disunified national agenda. With his pronouncements, Trump made pledges to purge and criminalize [revenge porn](#), expand foster care programs, and pursue [debunked theories](#) about autism. He returned to a missile defense [shield](#) for the U.S., right after informing one student he was heading to West Point and a child with brain cancer he had just been made an honorary Secret Service agent. He suggested the United States had succeeded in reclaiming the Panama Canal, hinted that Greenland would become part of the United States "one way or another," and would relaunch shipbuilding as a major domestic industry.

It was impossible to keep track of what was practical and what was purely political messaging, which is entirely how Trump has been lashing D.C. since Jan. 20. It has left everyone just doing their best to keep up.

When Rep. Al Green of Texas, a Democratic lawmaker who is often a step afield from his party, stood in protest of Trump, House Speaker Mike Johnson [ordered](#) him removed by the security staff. Democrats stayed in their seats holding signs declaring "Musk Steals," their minor attempt at expressing disapproval of Elon Musk's [rampage](#) through government. Within the first half hour of a record-breaking 100-minute speech, Democratic lawmakers

began to stream out of the chamber in disgust with Trump's constant blaming of former President Joe Biden for all that came before. Toward the end, Sen. Elizabeth Warren of Massachusetts clapped in defiance when Trump singled her out as "[Pocahontas](#)."

All the while, Republicans stood and cheered on command, including one of the biggest eruptions for Musk. With very few exceptions, Trump's party has allowed him to ditch career professionals that run the mundane, day-to-day cogs of government. Few objected when he remade maps and sought naked [retribution](#) against any who refused to call it The Gulf of America. Even as the stock market took a [pounding](#) as Trump's trade war rippled from Wall Street to Main Street to [farm fields](#), none dared to confront Trump over his ill-informed plan to levy tariffs on some of America's most reliable and deep-pocketed economic partners. The answer, per guidance from GOP House Leadership, was just to [stop](#) holding town halls where lawmakers could face a grilling from rightly angry constituents who were promised a more orderly [Trump 2.0](#).

Trump rightly expected no serious threat to his hold over Washington. While senior GOP Senators had deep reservations bordering on hostility toward some of Trump's Cabinet picks, he ultimately lost only one. (That was [disgraced](#) former House Rep. Matt Gaetz, who [withdrew](#) before his paperwork was even sent to the Senate.) Trump barrelled his way into his first Cabinet meeting —complete with Musk in a baseball cap and T-shirt—on Feb. 26 and then into the House Chamber a week later. (On Tuesday, Musk wore a suit.) As one very smart insider observed to me last week, a whole lot of bad choices made by many Americans with varying degrees of real or imagined power led to this moment. Once a power is abdicated, it seldom comes back easily or with as much strength as before. For Republican lawmakers, the atrophy has been as severe as it has been rapid.

So as Trump arrived at the Capitol, his GOP friends had little choice but to fall in line in a speech that was more rallying cry than policy proposals. When he called “Joe Biden the worst President in American history,” his party went along with it. When he devoted time in his first joint address to this Congress to boast about his electoral win last year, he got plenty of cover from his base in the room. The cheers continued for his denigrating diversity, equity, and inclusion programs that he ended. And when he complained he wasn’t getting sufficiently praised, there were sympathetic cheers. “These people, sitting right here, will not clap, will not stand, and certainly will not cheer for these astronomical achievements. They won’t do it, no matter what,” Trump said. Everyone knew the script even if no one bothered to read it.

That’s not to say there aren’t reasons for Trump’s circle to be worried. The trade war is objectively bad politics; in the last two days, the tariff tiff erased the entire gains Wall Street posted since Trump won in November. The undefined goals of the tit-for-tat escalation with some of the United States’ most important partners has left markets reeling and businesses baffled as to how this ends. It was, put plainly, a huge [risk](#) with really poor odds for an American win. It drew the most tepid reaction from Republicans of the evening, even if Trump was not taking the hint.

“Tariffs are about making America rich again and making America great again. And it’s happening, and it will happen rather quickly. There may be a little disturbance, but we’re OK with that. It won’t be much,” Trump promised, downplaying the risk that has investors freaking out.

All the while, the deep cuts to government are starting to become more clear to voters. His [feud](#) with Ukrainian leaders was out of step with the hawks in the GOP, and huge portions of the American public. The culture-war [spat](#) over [transgender rights](#), “wokeness,” and [English as a national language](#) does zero to offset the economic devastation of his unpredictable trade efforts. And there is a sense

that his grievance-driven agenda is starting to feel like the grind of a reality show that goes a few seasons too long.

None of this seemed to rattle Trump, who treated the evening as an opportunity to rewrite the history to his liking, one in which he alone has power in Washington.

“We have accomplished more in 43 days than most administrations accomplish in 4 years or 8 years. And we are just getting started,” Trump said.

He may well be correct. More than 400 executive actions are on the books and he is closing in on 100 executive orders. But much of it may not track with what Trump is selling. The details are not the point. The chaotic flurry of activity is. And Trump is completely aware that he is Washington’s pacecar.

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For Taiwan, Trump's Strategic Ambiguity Brings Anxious Uncertainty

De Guzman is a reporter at TIME, based in the Singapore bureau. He covers the Asia-Pacific region and global overnight news.



Since returning to the White House, Donald Trump has chosen his words carefully when it comes to Taiwan. When a reporter pressed him on the U.S.-allied self-governing island that China claims as its own on Feb. 26, Trump refused to give a straightforward answer.

"I never comment on that," Trump [said](#) at the White House after being asked if the U.S. would ever allow China to take control of Taiwan by force. "I don't want to ever put myself in that position."

Trump's lack of specific commitments as President isn't a new strategy for the U.S. relationship with Taiwan, but observers say there are other clues as to how his administration may approach the issue.

When [asked by TIME last year](#) if the U.S. should defend Taiwan if China invades, Trump leaned into the longstanding U.S. policy

known as strategic ambiguity. “I’ve been asked this question many times and I always refuse to answer it because I don’t want to reveal my cards,” he said. “I wouldn’t want to give away any negotiating abilities by giving information like that to any reporter.”

Reflecting his [transactional and more insular approach to foreign policy](#), Trump told *Bloomberg Businessweek* last June that Taiwan should pay the U.S. for defense, especially after how the island “took” the U.S. [semiconductor business](#): “You know, we’re no different than an insurance company. Taiwan doesn’t give us anything.”

It’s not unlike his recent [dealings with Ukraine](#), in which Trump has shown willingness to negotiate with Russian President Vladimir Putin and potentially try to facilitate the ceding of Ukrainian territory to avoid further fighting.

Kevin Chen, associate research fellow at Nanyang Technological University’s S. Rajaratnam School of International Studies in Singapore, [previously told TIME](#) that China may be able to take Taiwan “without too much U.S. interference” if Beijing is able to strike a similar deal with Washington.

Taipei is not risking it. As Trump has repeated comments about wanting more investment from Taiwan, President William Lai Ching-te [said](#) that his government “is willing to cooperate with the U.S. in every aspect” and has promised to increase its own defense spending to 3% of its GDP.

Here’s what to know.

The basic history of U.S.-China and U.S.-Taiwan relations

After the Chinese Civil War ended in 1949, two governments laid claim to China: the People's Republic of China (PRC) which took over the mainland, and the Republic of China (ROC) which defected to the island of Taiwan. The U.S. initially recognized the ROC, but in 1972, when then-President Richard Nixon visited the mainland, the U.S. and the PRC government issued a communique that took a step forward in normalizing relations, including on the issue of Taiwan. The PRC asserted that "Taiwan is a province of China," and in turn, the U.S. acknowledged that the Chinese—across the mainland and Taiwan—maintain there is "one China," and that Washington will not challenge that principle and will let the Chinese settle the dispute themselves. This has come to be known as the "one China" policy, which Washington and many other countries maintain [some version of](#).

In 1979, to further placate Beijing and improve ties, the U.S. formally switched diplomatic relations with China from the ROC to the PRC, through another joint communique. However, not wanting to abandon its relationship with Taiwan altogether, the U.S. said in the 1978 communique that it will maintain "cultural, commercial, and other unofficial relations" with the island government.

In 1979, the same year the switch went into effect, Congress passed the [Taiwan Relations Act](#), which stated that peace and stability in the region covering Taiwan and China is "in the political, security, and economic interests" of the U.S. and that the switching of diplomatic ties from Taipei to Beijing rests on expectations that "the future of Taiwan will be determined by peaceful means." Under the law, the U.S. is expected to provide Taiwan with defense arms, but it did not explicitly say Washington would come to Taipei's defense in the event of an attack. (The U.S. and Taiwan had [a mutual defense treaty since 1955](#), but the U.S. unilaterally [ended it](#) in 1979.)

The provision of arms to Taiwan courted the ire of the PRC, so the U.S. under President Ronald Reagan in 1982 [clarified](#) through another communique that it “does not seek to carry out a long-term policy of arms sales to Taiwan” and that it “intends to gradually reduce its sale.” The Reagan Administration knew this would in turn worry Taiwan and so, weeks before issuing the clarification, gave Taipei what is now known as “[Six Assurances](#)”: that a date to end selling arms to Taiwan has not been reached; that the U.S. did not agree to consulting the PRC prior to selling arms to Taiwan; that the U.S. will not mediate between Taipei and Beijing, that the Taiwan Relations Act will not be revised, that the U.S. position on Taiwan sovereignty has not changed, and that the U.S. will not pressure Taipei into negotiating with the PRC.

The U.S. has since maintained unofficial relations with Taiwan, with the Taiwan Relations Act, the Six Assurances, and what’s come to be known as the [Three Communiqués](#) serving as the bedrock for these ties. As *de facto* embassies, Taiwan has the Taipei Economic and Cultural Representative Office in D.C., with [12 other offices](#) throughout the states and U.S. jurisdictions, while the U.S. has its counterpart office, the [American Institute in Taiwan \(AIT\)](#), a non-profit corporation in Taipei mandated by the Taiwan Relations Act.

Ties during Trump’s first term

One of the hallmarks of the first Trump Administration was a tougher stance towards China compared to his predecessors, through [tit-for-tat tariffs](#) and [an Indo-Pacific strategy](#) that aimed to curb Beijing’s growing influence in the Western Pacific. Alongside this, U.S.-Taiwan relations became more robust.

In 2018, Congress passed the [Taiwan Travel Act](#), which authorized high-ranking officials from both Taipei and Washington to visit each other, after years of not doing so to avoid upsetting China.

Beijing condemned the law, [saying](#) it violates the “one China” principle and could damage U.S.-China relations, but the visits went ahead—and have continued. Taiwan’s then-President Tsai Ing-wen stopped over in [New York](#) and [Denver](#) in July 2019, meeting with U.S. lawmakers along the way. And in February 2020, then-Vice-President Lai attended the [National Prayer Breakfast](#). Then-Health Secretary Alex Azar visited [Taiwan](#) in 2020 to tout the island’s response to the COVID-19 pandemic, to [Beijing’s chagrin](#). (After Trump’s term, then-Speaker of the House Nancy Pelosi further angered Beijing by visiting in 2022.)

During the first Trump administration, defense sales to Taiwan were also the highest in years: the U.S. made some [\\$18 billion](#) in Foreign Military Sales to Taiwan, including a [major \\$8 billion sale of 66 fighter jets](#). By contrast, President Barack Obama’s eight years in office saw \$14 billion in Foreign Military Sales to Taiwan (though there was another [\\$6.2 billion](#) in Direct Commercial Sales), while Joe Biden’s four-year presidency sold just over [\\$8 billion](#).

While China has also pressured other countries to abandon relations with Taiwan to diminish the island’s diplomatic profile and has condemned Taiwan’s inclusion in international forums like the World Trade Organization, the Trump Administration in 2020 enacted the [Taiwan Allies International Protection and Enhancement Initiative \(TAIPEI\) Act](#), which states the U.S. should advocate for Taiwan’s membership in international organizations.

Under Trump 2.0, a focus on finances—and potential dealmaking on both sides of the Taiwan Strait

Russell Hsiao, executive director of the Global Taiwan Institute think tank in D.C., tells TIME that the second-term Trump Administration has so far honed in on three aspects of the U.S.-

Taiwan relationship: the trade deficit, the reshoring of semiconductor manufacturing, and defense-burden sharing.

“For Trump, ultimately, what he cares about [is] the balance of trade,” says Chin-Hao Huang, associate professor at the National University of Singapore’s Lee Kuan Yew School of Public Policy.

A major source of the [record-high \\$73.9 billion trade deficit](#) the U.S. has with Taiwan comes from U.S. imports of semiconductors, the computer chips vital to industries like AI. Taiwan is home to the world’s largest contract chipmaker, [Taiwan Semiconductor Manufacturing Company \(TSMC\)](#), and although the Biden Administration tried to improve domestic manufacturing through policies such as the CHIPS Act, Trump has claimed that Taiwan “stole” the U.S. chip business, which Taipei [has denied](#). Trump has since [threatened](#) a minimum of 25% tariffs on imports of computer chips.

Some of Trump’s colleagues in the House [have urged](#) the abandonment of the “one China” policy to foster deeper business ties and a free trade agreement with Taiwan. Huang thinks that’s unlikely, however, because Trump generally prefers protectionist policies. “Trump’s ultimate red line is he wants to see jobs come back to the United States,” says Huang. “He wants to see the semiconductor industry in the United States thrive again. So this means investment.”

As for defense, while Trump has said little, the people in his orbit have offered more clues as to how the Administration may approach Taiwan. Trump’s now Vice President J.D. Vance [suggested last year](#) that the U.S. should take a more proactive role in Taiwan’s defense, telling the *New York Times*: “We should make it as hard as possible for China to take Taiwan in the first place.” He also previously told Fox News that the U.S. should prioritize preparedness for military conflict with China over other ongoing conflicts: “America is stretched too thin. We do not have the

industrial capacity to support a war in Ukraine, a war in Israel, potentially a war in East Asia if the Chinese invade Taiwan, so America has to pick and choose,” he said. “The Chinese are focused on real power. They’re not focused on how tough people talk on TV or how strong our alleged resolve is. They’re focused on how strong we actually are, and to be strong enough to push back against the Chinese, we’ve got to focus there.”

In early February, the State Department [removed](#) the phrase “we do not support Taiwan independence” from its [fact sheet](#) on Taiwan. It’s not the first time the Department has done so, removing the phrase in 2022 but [reinstating](#) it following protest from China. The State Department said it was a routine update, but Beijing [protested](#) again against the latest wording change, saying the U.S. has “gravely backpedaled” on the issue of Taiwan.

“As is routine, the fact sheet was updated to inform the general public about our unofficial relationship with Taiwan,” a State Department spokesperson [told NBC](#) in a statement, adding: “The United States remains committed to its one China policy.”

Secretary of State Marco Rubio [said](#) on February 20 that U.S. commitments to Taiwan are clear: “We are against any sort of compelled, forced change of status. That’s been our policy; that remains our policy.” And Defense Secretary Pete Hegseth [said](#) in early February that despite the Administration’s “America First” policy, he’s keen to bolster alliances in the Indo-Pacific region, adding: “We want to send the signals to China that that area will be and continues to be contested.”

During a trip to Asia in [late March](#), Hegseth, in a joint press conference in Tokyo with his Japanese counterpart, emphasized that the U.S. remains committed to “sustaining robust, ready and credible deterrence in the Indo Pacific,” including in the Taiwan Strait. A [secret Pentagon memo](#), obtained by the *Washington Post*, mentioned prioritizing deterring China’s takeover of Taiwan. In it,

Hegseth reportedly wrote: “China is the Department’s sole pacing threat, and denial of a Chinese *fait accompli* seizure of Taiwan—while simultaneously defending the U.S. homeland is the Department’s sole pacing scenario.”

China has launched multiple large-scale military drills around the island thus far in 2025, citing recent statements by the U.S. and Taiwan as provocation. State Department spokesperson Tammy Bruce condemned the latest drills, saying: “In the face of China’s intimidation tactics and destabilizing behavior, the United States’ enduring commitment to our allies and partners, including Taiwan, continues.”

Some in the Trump Administration, however, suggest a more cautious approach. Elbridge Colby, a [known China hawk](#) and nominee for undersecretary of defense for policy, [echoed Trump](#) in pushing Taiwan to increase its own defense spending while also advising that the U.S. “avoid unnecessarily poking Beijing on a ‘core issue’ for them.” During his confirmation hearing in early March, Colby [suggested](#) that the island government should bring its military spending up from 2.5% to 10% of its GDP.

Nicholas Lardy, a non-resident senior fellow at the Peterson Institute for International Economics, tells TIME he would be “very surprised” if Trump were to significantly change the status quo: “The reality is the policy of ‘one China’ and strategic ambiguity has served very well for decades.”

Lardy also notes that U.S. public opinion is strongly [against China](#). “There’s a very widespread view that they have been unfair on trade and other issues,” he says. Data from an October 2024 survey by the [Chicago Council on Global Affairs](#) suggests Americans are generally in favor of providing Taiwan support, at least short of direct military intervention.

At the same time, Steve Tsang of the School of Oriental and African Studies at the University of London says Trump has touted being against war and would not risk Chinese President Xi Jinping's "humiliation."

"I haven't seen any evidence that Trump cares much about Taiwan for being a shining example of a U.S.-sponsored democracy," Tsang tells TIME. "The evidence I have seen is that Trump is first and foremost for Trump, for which he would want to maintain a working relationship with Xi, so he could do some kind of a deal that would project Trump as a winner."

<https://time.com/7262281>

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How Trump's Attacks on DEI Are Hurting Communities That Voted for Him

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Clarksburg, West Virginia has [lead service lines](#) scattered throughout the city, which has caused elevated levels of lead in some children's blood, resulting in [health issues](#) like developmental delays.

In 2023, the environmental-justice division of the Environmental Protection Agency (EPA) introduced a new program designed to increase lead testing for local children and families so that officials could catch elevated lead levels early and prevent long-term health complications. Partnering with [cash-strapped state agencies](#), the EPA bought kits that could measure lead levels in children with just a finger prick, gave out gift cards to incentivize testing, and offered

testing opportunities in offices where families picked up benefits and received breast-feeding support.

The program invested \$150,000 in lead-testing kits for Harrison County, where Clarksburg is located, which raised testing rates in children from about 8% to 41%, says Camilla McMillen-Haught, director of Women, Infant, and Children (WIC) Nutrition in six West Virginia counties, including Harrison. Children with high levels of lead were then targeted for health interventions like dietary changes that would reduce their risk of long-term problems.

The future of the program is now uncertain, due to the Trump Administration's focus on rooting out efforts to prioritize diversity, equity, and inclusion (DEI) and environmental-justice initiatives. A proposed expansion of the lead-testing program to states like Ohio is threatened as well.

An EPA staffer connected to the initiative was put on administrative leave in early February as part of the Trump Administration's purge of federal government workers. The person told TIME they were pulled into a meeting and told they had 15 minutes to log out of their work email and settle their affairs. (The staffer asked not to be named for fear of being fired permanently.) An additional 167 members of the EPA's Office of Environmental Justice and External Civil Rights were put on administrative leave, according to the agency, many after receiving emails that said they were identified as spending more than half their time on environmental-justice initiatives.

These moves were part of President Trump's executive order, titled "[Ending Radical and Waste Government DEI Programs and Preferencing](#)," which he issued on his first day in office to target DEI and environmental-justice programs. (A Maryland judge on Feb. 21 [largely blocked](#) the Administration from carrying out much of the DEI executive order, though staff members and recipients of grants have not yet seen changes since then.) The Administration's

goal, it said, was to slash spending and end initiatives that single out minorities for help.

In the directive, Trump criticized his predecessor's own executive order seeking to advance racial equity and support for underserved communities as "illegal and immoral discrimination." New EPA Administrator Lee Zeldin said in a [video posted on X](#) Feb. 12 that "the days of irresponsibly shoveling boatloads of cash to far-left activist groups in the name of environmental justice and climate equity are over." [He added](#), on Feb. 22, "UPDATE: I just cancelled another 21 wasteful DEI and Environmental Justice grants, with the help of our amazing @DOGE team, racking up \$67m more in savings!"

But many of the environmental-justice programs targeted by the new Administration's staff cuts and funding freezes do not benefit minorities or left-leaning environmental groups, according to Adam Ortiz, who until January served as the EPA's Regional Administrator for Region 3, which includes Pennsylvania, Virginia, and West Virginia. Often they help poor, white communities in conservative areas—places that overwhelmingly voted for Trump.

Read More: [*Inside Elon Musk's War on Washington.*](#)

Clarksburg, a beneficiary of the West Virginia lead-testing program, is a former manufacturing hub that is 90% white and has a poverty rate of 23.2%, about double the national average. Harrison County, where it is located, voted for Trump by a margin of 40 percentage points in 2024.

"These are communities that had the most hope in this Administration and are now feeling the most suffering," says Jacob Israel Hannah, the CEO of Coalfield Development Corp., a nonprofit that does workforce development in 21 counties in West Virginia. Coalfield Development had won nearly \$700 million in federal funding for projects across the state. Over half of its budget

has come from federal grants in the past few years as the Biden Administration funneled “unprecedented” amounts of funding to Appalachia, Hannah says. But nearly all that money has been frozen by federal spending pauses targeting DEI, environmental justice, and clean-energy initiatives.

When asked about the idea that ending DEI and environmental justice activities hurts communities that supported Trump, an EPA spokesperson said in a statement to TIME that it is “working diligently” to implement President Trump’s executive orders. It placed the 168 Office of Environmental Justice employees on administrative leave after EPA career staffers determined that their functions “did not relate to the agency’s statutory duties,” the statement said. The agency is “in the process of evaluating new structure and organization to ensure we are meeting our mission of protecting human health and the environment for all Americans,” according to the statement.

Harrison Fields, a White House spokesman, wrote in an email to TIME that “protecting the civil rights and expanding opportunities for all Americans is a key priority of the Trump Administration, which is why he took decisive actions to terminate unlawful DEI preferences.”

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Funding freezes are another way that the Trump Administration has tried to weed out programs promoting DEI and environmental justice. One of the grants Coalfield Development Corp. won—worth around \$130 million—would have created 1,000 new jobs by training unemployed coal workers to become solar installers and then to install 250 megawatts of solar on closed coal mines, says Hannah. But now, he says, when Coalfield staffers log into funding portals for the Department of Energy, the EPA, and the Department of Labor, they receive a message that their grants are “under review” and that they are not able to access the money they were

promised. The grant applications included the term *environmental justice* because they would have helped underserved communities access jobs and clean power, Hannah says. If the grant goes away, “you will see the loss of what would have been over 1,000 new jobs in Appalachia,” Hannah says.

Read More: *The Major U.S. Companies Scaling Back DEI Efforts as Trump Targets Initiatives*

While some of the beneficiaries of environmental-justice projects have been low-income communities of color in cities, others are struggling white communities in Appalachia. The Biden Administration mandated that 40% of many of its climate and [clean energy funds flow to](#) “disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.” It also set aside \$500 million for Appalachian Community Capital to launch a Green Bank for Rural America that would have [prioritized investments](#) in 582 counties across the region.

“The important thing to understand about all the grants at the EPA is that they prioritized reaching the communities most overburdened by pollution,” says Zealan Hoover, who was until recently the Director of Implementation at the agency, overseeing \$100 billion in funding. “In every state, there was a wide range of communities receiving funding.” That includes Alaska Native communities, rural communities in the Southeast and Gulf Coast, and places across the country that have disproportionately high energy costs, Hoover says.

Another nonprofit that saw its federal funding frozen is LiKEN (Livelihoods Knowledge Exchange Network), which works in Kentucky and West Virginia to help people in rural areas join global markets for sustainable agriculture and carbon capture. LiKEN received \$3.1 million from the U.S. Forest Service’s Forest Landowners Support Program from the Inflation Reduction Act. It hired 10 staff to open satellite offices in eastern Kentucky and

southern West Virginia that were set to become local hubs where the community could gather, says Betsy Taylor, the group's executive director.

On Feb. 5, the organization received a form email from the U.S. Forest Service informing the group that its federal funds "are on hold until further notice." LiKEN had to borrow money from private donors and furlough five staff. Taylor says she has a suspicion of why the money was frozen: "Diversity, equity, and inclusion. It was about serving underserved communities." The vast majority of these communities were white, Taylor says.

Read More: *For Many of America's Aging Workers, 'Retirement Is a Distant Dream.'*

The Administration's funding freeze hits communities that would have benefited at a time of urgent need. Swaths of Appalachia suffered [devastating floods on Feb. 15](#). "One of the things that has been surreal is the contrast between the shock that the government would not be honoring contracts that were congressionally approved, and the heroism of people on the ground who lost income rushing to communities affected by the floods," Taylor says.

Many of the programs whose funding was paused or whose federal staff were placed on administrative leave focused on providing access to clean drinking water and functioning wastewater treatment plants, says Ortiz, the former EPA regional administrator. One project, spearheaded by a staffer now on administrative leave, according to Ortiz, sought to relocate a wastewater treatment plant in Richwood, W.V., that has been basically inoperable since a 2016 flood.

"Our environmental-justice work was really focused on places that historically didn't have the ability to match funds or pay loans back," Ortiz says. "For the first time since the 1930s and 1940s,

these communities were receiving serious investments to rebuild critical infrastructure.”

In Pennington Gap, Virginia, which is located in a county where 86% of voters supported Trump in 2024, the future of a grant to demolish an asbestos-filled grocery store, issued through the EPA’s Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program, is now in question. The nonprofit environmental group Appalachian Voices, which received the grant, can’t get in touch with its EPA program lead and can’t send out any more information to community members without EPA approval, says Emma Kelly, New Economy program coordinator for Appalachian Voices.

Other federal funding to Appalachian Voices that has been frozen includes money to support communities battered by flooding and monitor air quality, says Kelly. “These freezes, even if they are eventually overturned, are already having incredibly detrimental impacts,” she adds.

Many of the EPA environmental-justice staffers put on leave are eager to get back to work—even in an Administration that seems hostile to the very idea of the work that they do. “No economy is going to be restored,” says one staffer on administrative leave, who asked not to be named because they hope to be reinstated, “if you don’t have sanitation or clean drinking water.”

<https://time.com/7261440>

What Are Abortion Shield Laws?

Lee is a reporter at TIME. She covers U.S. news with a focus on health and reproductive rights.



In the aftermath of the U.S. Supreme Court decision [overturning Roe v. Wade](#) in 2022, many states have moved to protect the right to abortion, and several have turned to a new tool to do so: abortion shield laws.

The laws are intended to preserve abortion access by protecting multiple classes of people—abortion providers practicing in states where abortion is legal, as well as patients and people who help them access abortion—from civil and criminal actions taken by states with bans or restrictions on abortion. Now, these laws are being tested through two legal challenges in Texas and Louisiana, both involving a New York doctor.

So what are shield laws exactly, and what does the future hold for them? TIME spoke to experts to find out.

What are abortion shield laws?

Abortion shield laws are “novel protections” enacted in 18 states and Washington, D.C., says Lizzy Hinkley, senior state legislative counsel at the [Center for Reproductive Rights](#), which has helped draft some of these laws. The laws provide protections for doctors providing medication or in-clinic abortions in the shield state, according to Rachel Rebouché, dean and professor at Temple University Beasley School of Law. Every law is different, so the protections offered by each state vary, but can include the shield state refusing to comply with another state’s extradition order for a doctor who has provided reproductive health care that’s legally protected in the shield state, refusing to participate in another state’s investigation into the provider, and refusing to penalize the provider through professional discipline.

Connecticut was the first state to [pass](#) an abortion shield law, in May 2022, in anticipation of the Supreme Court’s overturning of *Roe*. “What we were motivated by was, there is going to be an intense interstate conflict,” says Rebouché, who worked with colleagues to draft the state’s shield law language.

“This is new territory,” Hinkley says. “Shield laws were a tool that states have been using in response to a change in how abortion rights are treated in the country. When there was still a federal protected right to abortion, states did not have to be concerned about whether a provider in their state was going to be criminalized for providing abortion care to a patient or resident of another state because states couldn’t criminalize that care. There was a right to abortion; there were guardrails that were federally protected.”

Of the 18 states that have shield laws, eight of them—including New York—include protections for doctors who are providing abortion pills through telemedicine to patients in other states, according to Rebouché. About 63% of all abortions in the American healthcare system in 2023 were [medication abortions](#), but anti-abortion activists and lawmakers have been [trying to restrict access](#) to the pills. After the Supreme Court’s decision in

Dobbs v. Jackson Women’s Health Organization, the Biden Administration made efforts to increase access to abortion pills by allowing them to be prescribed via telehealth and received via mail, but reproductive rights advocates are [concerned](#) that the Trump Administration will roll back those efforts. Hinkley says telemedicine abortion has been “a lifeline” for many people who live in states that have banned or restricted abortion.

Read More: [*How the Biden Administration Protected Abortion Pill Access—and What Trump Could Do Next*](#)

What are the current legal challenges to shield laws?

Texas, which has banned abortion in nearly all situations, filed a civil suit against New York-based Dr. Margaret Daley Carpenter for allegedly prescribing, via telemedicine, abortion pills to a 20-year-old woman in Texas. Texas alleges that the woman was hospitalized with complications. On Feb. 13, a Texas judge [ordered](#) Carpenter to stop prescribing abortion pills to Texas residents, and to pay a fine of more than \$100,000. Carpenter and her lawyers didn’t respond to the lawsuit, given New York’s shield law that bars cooperating with other states’ investigations into providers.

Louisiana, which also has a near-total ban on abortion, charged Carpenter with a felony for allegedly prescribing, via telemedicine, abortion pills to a minor who was pregnant. Louisiana officials claim that the patient was taken to the hospital after ingesting the pills because she was experiencing a medical emergency. New York Gov. Kathy Hochul said on Feb. 13 that she won’t extradite Carpenter to Louisiana—“not now, not ever”—per New York’s shield law. Louisiana [can’t constitutionally prosecute](#) Carpenter unless she’s physically present in the state for a court appearance, according to Rebouché.

The cases represent the first time shield laws are being tested in court. “I think they point to what we can expect moving forward for intense interstate conflict,” Rebouché says of the two cases. “I don’t think it’s surprising; I think this is where we were always going to land, given that *Dobbs* returned abortion to the state and a third of the country prohibits abortion from the earliest moments of pregnancy or before six weeks, just as many states have codified abortion rights in their constitutions and their state laws.”

Read More: *Here Are Trump’s Major Moves Affecting Access to Reproductive Healthcare*

What does the future hold for shield laws?

Because New York won’t cooperate with Texas and Louisiana, the future of the two cases is a little unclear.

“Those [cases] raise really profound constitutional, structural questions about interstate relationships,” Rebouché says. “They’re bound to end up before the Supreme Court because there’s a long, complicated history of mediating disputes between states when they don’t agree on public policy, and that’s where we are now.”

Hinkley says the intent of the legal challenges is to scare doctors who are providing abortion care, but that shield laws are working to provide access to people across the country. She adds that the laws “are squarely within states’ power to enact” and are constitutional.

“I’m sure that there will be continued challenges to the shield laws,” Hinkley says, “but I can say with certainty that [shield laws] were drafted with good care and with these legal challenges in mind, and they stand on solid ground, both within what states are allowed to do, as well as what they’re not allowed to do.”

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Scientists Have Bred Woolly Mice on Their Journey to Bring Back the Mammoth

Kluger is an editor at large at TIME. He covers space, climate, and science. He is the author of 12 books, including *Apollo 13*, which served as the basis for the 1995 film, and was nominated for an Emmy Award for TIME's series *A Year in Space*.



Extinction is typically for good. Once a species winks out, it survives only in memory and the fossil record. When it comes to the woolly mammoth, however, that rule has now been bent. It's been 4,000 years since the [eight-ton, 12-foot](#), elephant-like beast walked the Earth, but part of its DNA now operates inside several litters of four-inch, half-ounce mice created by scientists at the Dallas-based [Colossal Laboratories and Biosciences](#). The mice don't have their characteristic short, gray-brown coat, but rather the long, wavy, woolly hair of the mammoth and the extinct beast's accelerated fat metabolism, which helped it survive Earth's last ice age. Both traits are the result of sophisticated gene editing that Colossal's scientists hope will result in the reappearance of the mammoth itself as early as 2028.

“The Colossal woolly mouse marks a watershed moment in our de-extinction mission,” said company CEO Ben Lamm in a statement. “By engineering multiple cold-tolerant traits from mammoth evolutionary pathways into a living model species, we’ve proven our ability to recreate complex genetic combinations that took nature millions of years to create.”



Colossal has been working on restoring the mammoth ever since the company’s [founding in 2021](#). The animal’s relatively recent extinction—just a few thousand years ago as opposed to the tens of millions that mark the end of the reign of the dinosaurs—and the fact that it roamed the far north, including the Arctic, means that its DNA has been preserved in [multiple remains embedded in permafrost](#). For its de-extinction project, Colossal collected the genomes of nearly 60 of those recovered mammoths.

Recreating the species from that raw biological material is relatively straightforward in principle, if exceedingly painstaking in practice. The work involves pinpointing the genes responsible for the traits that separate the mammoth from the Asian elephant—its close evolutionary relation—editing an elephant stem cell to express those traits, and introducing the stem cell into an elephant embryo. In the alternative, scientists could edit a newly conceived Asian elephant zygote directly. Either way, the next step would be

to implant the resulting embryo into the womb of a modern-day female elephant. After 22 months—the typical elephant gestation period—an ice age mammoth should, at least theoretically, be born into the computer-age world.

But speedbumps abound. The business of rewriting the genome takes extensive experimentation with hundreds of embryos to ensure that the key genes are properly edited. The only way to test if they indeed are is to follow the embryos through gestation and see if a viable mammoth pops out; the nearly two years it would take for even a single experimental animal to be born, however, would make that process impractical. What's more, Asian elephants are highly social, highly intelligent, and [endangered](#), raising intractable ethical obstacles to experimenting on them. Enter the mouse, an animal whose [genome lends itself](#) to easy manipulation with [CRISPR](#)—a gene-editing tool [developed in 2012](#), based on a natural process [bacteria use](#) to defend themselves in the wild. What's more, mice need only 20 days to gestate, making for a quick turnaround from embryo to mouse pup.

In the current experiment, researchers identified seven genes that code for the mammoth's shaggy coat—identifying distinct ones that make it coarse, curly, and long. They also pinpointed one gene that guides the production of melanin—which gives the coat its distinctive gold color—and another that governs the animal's prodigious lipid metabolism. Relying on CRISPR, they then took both the stem cell and zygote approach to rewriting the mouse's stem cell to express those traits. The next steps involved more than a little hit and miss.

Over the course of five rounds of experiments, the Colossal scientists produced nearly 250 embryos. Fewer than half of them developed to larger, more-viable 200- to 300-cell embryos, which were then implanted in the womb of around a dozen surrogate females. Of these, 38 mouse pups were born. All of them successfully expressed the gold, woolly hair of the mammoth as

well as its accelerated lipid metabolism. The Colossal scientists see the creature they've produced as a critical development.

"The woolly mouse project doesn't bring us any closer to a mammoth, but it does validate the work we are doing on the path to a mammoth," Lamm tells TIME. "[It] proves our end-to-end pipeline for de-extinction. We started this project in September and we had our first mice in October so that shows this works—and it works efficiently."

There's plenty still to accomplish. A mammoth is much more than its fur and its fat, and before one can lumber into the twenty-first century, the scientists will have to engineer dozens of other genes, including those that regulate its vasculature, its cold-resistant metabolism, and the precise distribution of its fat layers around its body. They would then have to test that work in more mouse models, and only if they succeed there try the same technique on an elephant.

"The list of genes will continue to evolve," says Lamm. "We initially had about 65 gene targets and expanded up to 85. That number could go up or down with further analysis, but that's the general ballpark for the number of genes we think we will edit for our initial mammoths."



Colossal scientists see all of this work as just a first step in developing a more widely applicable de-extinction technology. In addition to the mammoth, they would also like to bring back the [dodo](#) and the [thylacine](#)—or Tasmanian tiger.

“Our three flagship species for de-extinction—mammoth, thylacine, and dodo—capture much of the diversity of the animal tree of life,” says Beth Shapiro, Colossal’s chief science officer. “Success with each requires solving a different suite of technical, ethical, and ecological challenges.”

The work can’t start soon enough. The company [points](#) to [studies](#) suggesting that by 2050 up to 50% of the Earth’s species could have been wiped out, most of them lost to the planet’s rapidly changing climate. The [Center for Biological Diversity](#) puts the figure at a somewhat less alarming 35%, but in either case, the widespread dying could lead to land degradation, loss of diversity, the rise of invasive species, and food insecurity for humanity. Arresting climate change and the loss of species that will result is a critical step away from that brink, but one that policymakers and the public are embracing only slowly. Restoring the species that will vanish—or fortifying the genetic heartiness of those that are endangered to help them adapt to a changing world—is one more insurance policy against environmental decline.

“We do not argue that gene editing should be used instead of traditional approaches to conservation, but that this is a ‘both and’ situation,” says Shapiro. “We should be increasing the tools at our disposal to help species survive.”

<https://time.com/7264043>

NASA's New, \$4 Billion Space Telescope Will Unravel a Great Cosmic Mystery

Kluger is an editor at large at TIME. He covers space, climate, and science. He is the author of 12 books, including *Apollo 13*, which served as the basis for the 1995 film, and was nominated for an Emmy Award for TIME's series *A Year in Space*.



The giant, 40-ft. space telescope resting in the airtight, climate-controlled clean-room at NASA's Goddard Space Flight Center in Greenbelt, Md., wants nothing to do with the microscopic dust particles clinging to your clothing. So before you enter the room, you first must stand in a chamber that blows high-powered, compressed air at you from head to toe, sweeping you clean. Next you dress up in surgical scrubs—booties, head covering, mask, blouse, and pants—and pass through a series of doors that take you into successively more-sterile ante rooms. Only then, when your dust can pose no danger to the delicate machine in the center of the room, can you join the Nancy Grace Roman Space telescope on the factory floor. There, technicians are busy completing its assembly in preparation for its launch in May 2027 to a spot in space close to

1 million miles from Earth. From there it may transform our understanding of the cosmos.

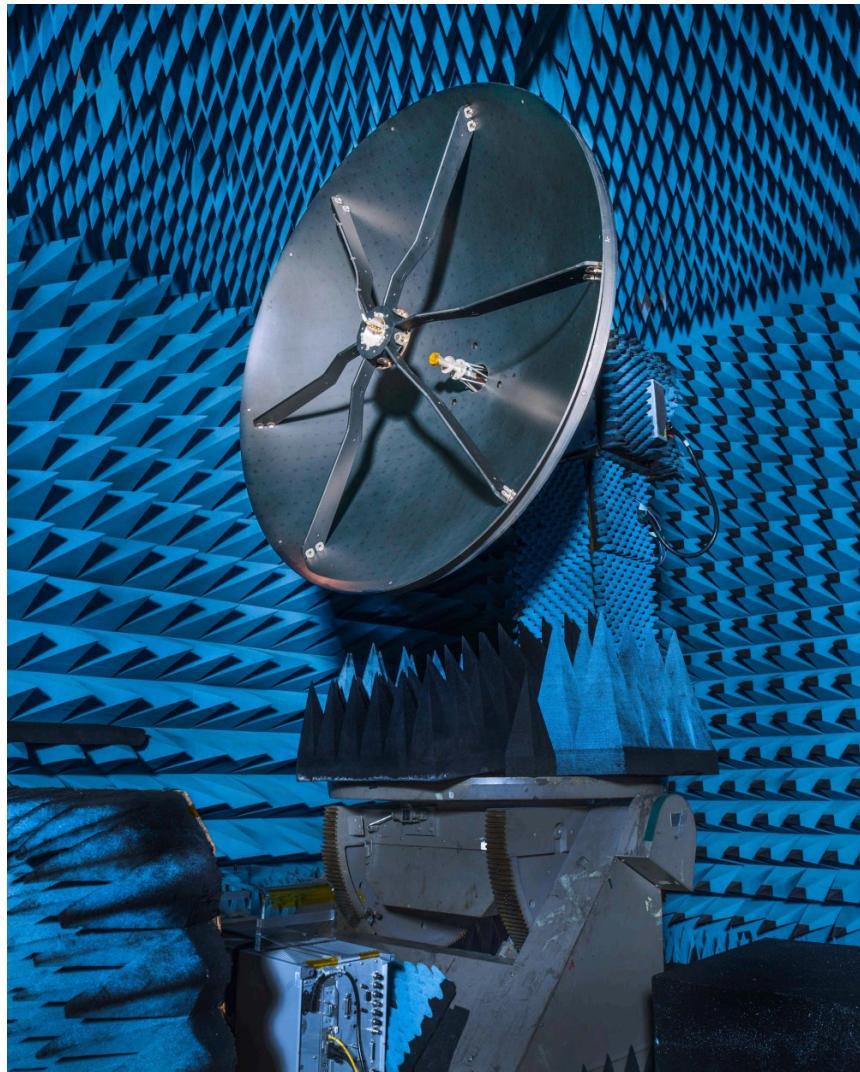
“The vast discovery power of this telescope is going to expand our window of knowledge by orders of magnitude,” says Jamie Dunn, the Roman telescope’s project manager. “You’re going to have a tremendous amount of data available to tens of thousands of scientists. It’s just mind-boggling.”

“We [will be able to] move quickly and map out very large areas of the sky,” adds Josh Schlieder, the telescope’s wide-field instrument scientist. “We [will] detect hundreds of millions of galaxies to very high accuracy with very deep imaging.”

Roman will indeed do all that and more. The telescope will be able to look at a patch of sky 100 times larger than both the [Hubble Space Telescope](#) and the [James Webb Space Telescope](#) can. It will be able to peer up to 13.2 billion light years away, collecting images of the 13.8-billion year old universe when it was just 600 million years old. The [18 detectors](#) in its wide-field infrared imaging camera are equipped with 16 million pixels each, providing exquisite image resolution. And its 5.6 ft. (1.7 m) high-gain antenna will be able to send a firehose of pictures and data back to Earth at unprecedented speed. What’s more, all of this data will be open-source—available to the world.

“Roman will deliver one terabyte of data a day,” says Rob Zellem, deputy project scientist for communications. “That’s the equivalent of one gaming computer a day.”

That gusher of findings will include new observations of exoplanets—or planets orbiting other stars; new surveys of the structure of the Milky Way; and new studies of [dark energy](#), the mysterious, invisible force that causes the universe to expand continuously at an ever-accelerating rate.



“Part of our core science for Roman is to do surveys that allow us to measure the properties of very large numbers of galaxies throughout cosmic history,” says Schlieder, standing just feet from the Roman telescope on the clean-room floor as bunny-suited technicians tend to it. “By measuring their positions, their velocity, how fast they’re moving toward or away from us and their shapes, we’ll be able to place new constraints on the properties of dark energy.”

The telescope has a lot of assembly and other work ahead of it before it finally takes to space atop a [SpaceX Falcon Heavy rocket](#) two years down the line and begins to perform that work. It may be getting pampered today but it will be punished before long as it goes through testing—set to begin late this spring—to ensure that it can tolerate the harsh conditions of deep space and the violent,

high-energy shaking that the Falcon will subject it to as its 27 engines light, putting out 5 million pounds of thrust.

“The testing includes electrical testing; vibration testing; acoustical testing, to simulate the sound of a launch; and a thermal vacuum test, [in which] we take it in a big chamber, pump out all the air, and go through warm to cold temperatures, to test out all of its components in a real space-like operating environment,” says Schlieder.

Only if the \$4 billion telescope survives that pounding will it get its chance to leave the planet. In keeping with the potentially epochal science Roman will perform once it’s in space, NASA has decided to fling its findings and discoveries open to the world. Typically, the data returned and the discoveries made by space observatories like Hubble and the Webb have a period of 6 to 12 months during which they are available only to the astronomers who did the work. Roman’s findings will be made immediately available to the public—lay people and scientists alike—on a universally accessible website. That’s because Roman’s huge field of view will allow many astronomers—and non-astronomers—at once to gather data from uncounted regions of the sky, with no single principal investigator directing the observation.

“We will not have individual teams that get proprietary access to the data,” says Schlieder. “The data will be obtained, it’ll be downloaded to the Earth, it’ll be processed, and it will be posted in an archive for anyone to go grab and do what they want.”

“Every single Roman observation will have huge and broad science return,” adds Julie McEnery, Roman’s senior project scientist. “The Roman surveys are defined collaboratively by the science community and collectively owned by the science community.”

A cosmic namesake

The Nancy Grace Roman space telescope did not always go by such a lyrical name. When it was first proposed, in 2010, it went by a decidedly more arcane, if more descriptive moniker: the Wide Field Infrared Survey Telescope (WFIRST). When cosmic objects move toward the viewer, the wavelength of visible light they produce is compressed like a spring toward the blue end of the spectrum. Objects moving away emit a light that is stretched toward the red end of the spectrum. The universe as a whole is largely red-shifted, since, as the celebrated astronomer [Edwin Hubble](#) discovered in 1929, it is forever [expanding](#), with the billions of known galaxies continuously receding from us. The WFIRST telescope, with its 18 infrared eyes, was designed to study that shift. [In 2020](#), when metal was at last being cut on the new telescope, then-NASA administrator Jim Bridenstine announced that it would be renamed in honor of [Nancy Grace Roman](#), NASA's first chief astronomer—and Roman clearly earned the honor.

Coming to work for NASA in 1959, Roman was tapped to serve as head of observational astronomy, the first woman of such rank at the fledgling agency. In that position, she spent 20 years leading NASA's efforts to secure funding for a space-based telescope—one that eventually became the Hubble. For her pains, she was affectionately nicknamed “the mother of Hubble.” It was under her decades of leadership that [observations made by the telescope](#) helped build on Edwin Hubble’s work, showing that the rate of the universe’s expansion is actually increasing over time, seemingly violating the laws of gravity, which ought to apply a brake on the cosmos’s growth. The engine of the accelerating expansion was said to be a still-unknown force dubbed dark energy, which is believed to make up 68% of the universe.

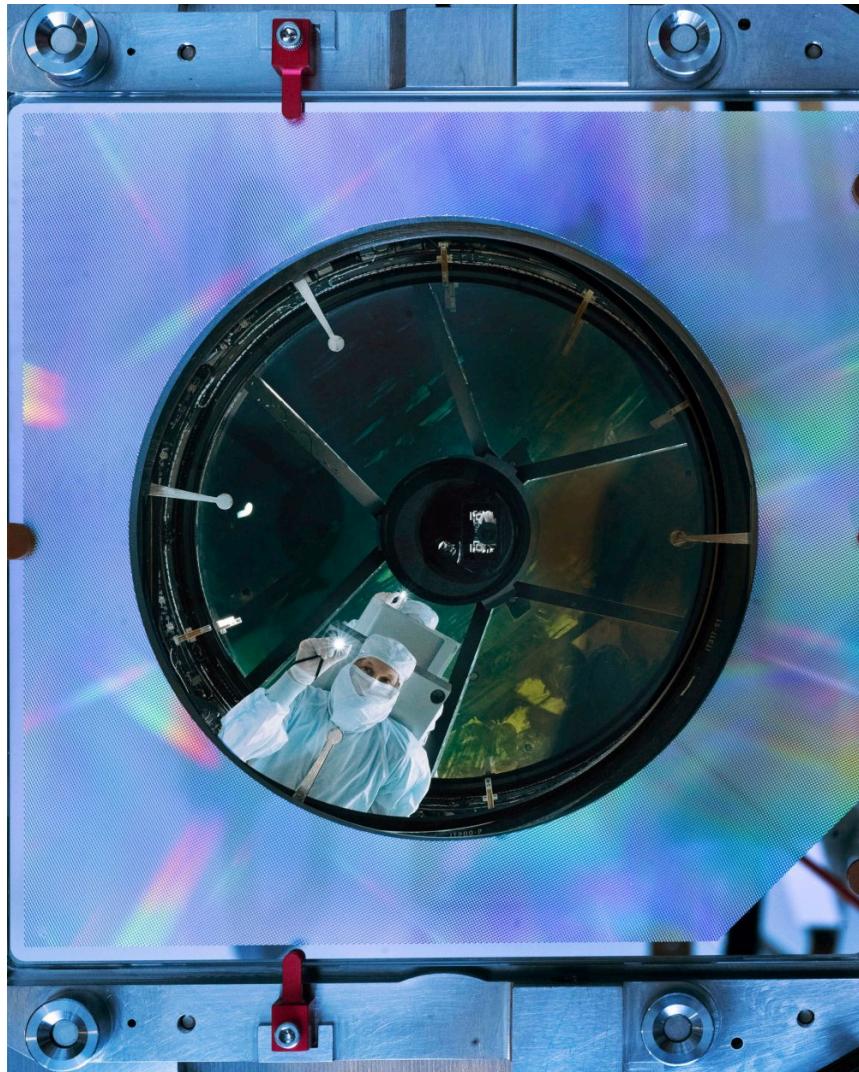
The theory of dark energy was [first promulgated in 1998](#), 20 years before Roman’s death. The telescope now named for her will help unravel the stubborn mystery surrounding it.

Planetary multitudes

Probing the secrets of galactic motion and dark energy won't be Roman's only task. It will also devote considerable attention to individual stars—specifically focusing on the planets that orbit them. Until now, it has been impossible to spot exoplanets directly, since the glare of their parent star washes out the far fainter pinpoint of the nearby planet—much the way a streetlight would blind you to a moth fluttering next to it. Instead, astronomers infer the presence of a planet, either by measuring the slight dimming of the star when the smaller body passes in front of it or the slight wobble the planet's gravity causes in the star. The Roman telescope will come at things more straightforwardly, thanks to a coronagraph—an array of flexible, piston-mounted mirrors and optical masks that block the light of the star, allowing the planet to pop into view.

"These optical elements allow us to beat down all of that noise in the system," says Schlieder. "It's very striking when you look at a star normally, and then you look at a star once it's gone through the system. In one of them, the star just looks like a big sort of fuzzy blob. And in the other one, it's blocked out and you see what's around it."

Adds Zellem: "You have the masks, the deformable mirrors, and post-processing [imaging] techniques that happen on the ground. You can then remove that star signal and extract that very small planetary signal."



The coronagraph won't be the only way Roman will find planets. It will also rely on what's known as gravitational microlensing. In 1912, [Albert Einstein posited that](#) when a foreground star drifts in front of a background star, the background star should briefly brighten, as the gravity of the one in front distorts and magnifies its light. [The theory was proven](#) during the total solar eclipse of 1919 when British physicist Sir Arthur Eddington measured the distortion of background stars near the limb of the darkened sun. Contemporary astronomers can make use of lensing to look for exoplanets. If a foreground star has no planets, it will distort the light of a background star in a relatively smooth up-and-down arc as the obstructing star passes by. If it does have planets, those smaller bodies will cause a bit of additional increase in the background light.

“That little planet that’s at the right location will cause a spike in that brightness, and then it will come back down and finish,” says Schlieder.

Roman will have a lot of those little signals to target. Until 1992, astronomers had not discovered any planets beyond the eight in our own solar system. Since then, they have spotted and confirmed more than 5,500, with thousands of other candidate planets that require more observation and examination. Roman will both be looking for its own newly observed exoplanets—mission planners predict it could discover hundreds of thousands of them—and possibly be revisiting some of the ones that are already in the catalog. Much of what they will be investigating will be the chemistry of the planets’ atmospheres, searching for signs of organic activity, especially on small rocky worlds like Earth. Roman will be particularly tuned to pick up the atmospheric wavelength consistent with methane, a molecule closely associated with life, and one that is being studied by NASA’s Mars rovers as well.

The wider view

Roman’s studies of the macro structure of the universe will be more complex, and partly explain why it will be parked in space so far from Earth. In order for the infrared imagers to work—measuring the red-shift of galaxies in the expanding cosmos—the telescope has to be shielded from stray heat, since that would wash out a thermal image the same way stray light would ruin an optical one. Roman, like the James Webb Space Telescope, will thus station-keep at a spot known as a Lagrange point, one of five places in space where the gravity of the Earth and the sun cancel each other out, allowing objects to circle the invisible point as if they were orbiting a solid body like a planet. Roman, like Webb, will be going to Lagrange Point 2, on the opposite side of the Earth from

the sun. Out in that distant remove, the temperature drops to about 90 Kelvin, or -298°F.

“That’s a really good operating temperature for our very sensitive infrared detectors,” says Schlieder.

Roman will be looking at the motion of the universe in the visible range too, thanks to what are known as type 1a supernovas—exploding stars that are part of a binary star system. All type 1a stars erupt with equivalent brightness. To the extent that one shines brighter than another it’s only because it’s closer than the other.

“You can think of them being like a standard candle, like a light bulb,” says Schlieder. “If you have a light bulb and you know the wattage, and you take it some distance away, it looks fainter.”

Measuring that brightness will allow Roman astronomers to determine the motion and distance of the supernovas, which will also provide clues to the speed of the expansion of the universe, both now and in the past, shedding more light on just what dark energy is and how it works.

Early in its stay in space, Roman will also conduct the most detailed survey of the Milky Way that’s ever been attempted. Our solar system’s region of space lies in the plane of the galaxy, out in one of its spiral arms. Looking toward the galactic center thus amounts to looking at a vast band of stars—which is what the Milky Way looks like to the naked eye in a very dark sky. Roman will stare toward the center of the galaxy for a surveying period that will last about a month, during which it will gather images of about 50 billion stars, in multiple wavelengths, including the infrared—or up to half of the stars in the galaxy. It will be the most extensive mapping of our galaxy ever conducted and will yield data about star formation, the dust in interstellar space, and the gravitational dynamics at the galactic center. The month that the survey will take is actually a breakneck pace—a thousand times faster than Hubble could conduct similar work.

“One month with Roman is about a thousand months with Hubble,” says Schlieder.

Just why the world needs a new, \$4 billion telescope only [four years after the launch](#) of the \$10 billion James Webb telescope is a question that actually has an easy answer. For one thing, Webb does not have the exoplanet coronagraph capability that Roman has. For another, the two telescopes’ image resolutions are very different. Webb’s cameras can see deeper into space than Roman’s can—about 13.6 billion light years distant, or 13.6 billion years in the past, compared to Roman’s 13.2 billion. But Roman’s wide-field gaze is much greater than Webb’s.

“Roman goes wide, Webb goes deep and narrow,” says Zellem. “Roman is context. It’s like a fisheye compared to Webb’s zoom lens.”



It is a good thing that Roman can conduct its surveys fast, because it won’t have all that long to live. The Hubble Space Telescope has been aloft for 35 years and is still at work—thanks in part to the [five servicing missions](#) astronauts made to the telescope before the space shuttles were retired in 2011. But Hubble flies in an easy-to-get-to low-Earth orbit. Roman, like Webb, a million miles away, is

out of reach of handyman astronauts. As a result, it has a nominal planned mission of just five years, with flight managers not ruling out extending that to 10 years, if the machinery holds up and the hydrazine fuel that powers its positioning thrusters lasts.

“Fuel is the only expenditure now that sort of limits the Roman timeline,” says Dunn. “Perhaps a future NASA robotic mission, which has yet to be planned and is not designed at all, could go out to Roman and refuel it.”

But that’s for the indeterminate future. For now, Roman is still in its assembly phase, with much more work ahead of it. Exiting the clean room and leaving the telescope behind is a little like exiting an operating room, passing back through successively less sterile chambers, doffing mask and outer garments, and rejoining the world of dirt and dust and grit and grime. Roman will barely touch that world, eventually leaving its home in Maryland and traveling as sealed cargo to the Kennedy Space Center for its launch. From there it will go to live in space—where it will dramatically widen humanity’s eye on our universe. “Today,” says Schlieder with a final backward glance at the telescope as he exits the clean-room, “we are making sure that the instrument—as it’s being built, tested, and ready to go—is going to deliver on the science it has to deliver.”

<https://time.com/7212527>

Michelle Trachtenberg Radiated Vulnerability and Joy

Zacharek is the film critic at TIME. She is the recipient of a Newswomen's Club of New York award and was a 2015 Pulitzer Prize finalist.



When Michelle Trachtenberg suddenly appeared among the already-familiar cast members of Joss Whedon's much-loved turn-of-the-21st-century TV show *Buffy the Vampire Slayer*, at the beginning of the fifth season, no one knew what to make of her. For one thing, her character, Dawn, was a young teenager who'd emerged from nowhere, though the implication was that she was the younger sister of the show's heroine, Buffy Summers, played by [Sarah Michelle Gellar](#), and that she'd been there all along. Who knew Buffy had a younger sister? Exactly no one, and yet suddenly there Dawn was, eager to be accepted by her older, cooler sister and that sister's gang of older, cooler friends. I remember that first episode with Dawn: she was an outsider, an interloper, among a group of characters who already meant a great deal to me. She was annoying. *I didn't want her hanging out with Buffy and her friends.* I wanted her to just go away.

That feeling didn't last long, and Whedon's gamble—that we too would come to accept this character as family—paid off.

Trachtenberg's Dawn was so full of life, so adorably awkward and insecure, so meltingly vulnerable, that no matter how aggravating she could be, it would have been unthinkable to shut her out. If you were Dawn's age, you related to her; if you were older, you felt, as Buffy did, protective of her. That was the magic of Michelle Trachtenberg, who [died on Feb. 26 at age 39](#). Her presence in early 2000s TV—later, she would play the scheming socialite Georgina Sparks on *Gossip Girl*—exemplifies the hold that even secondary characters can have on us. You don't have to be the star of the show to earn viewers' affection and loyalty, as Trachtenberg did.

Read more: [Michelle Trachtenberg's Co-Stars Pay Tribute in the Wake of Her Death](#)

Her career had begun long before she found her way to *Buffy*: She'd been doing TV commercials since the age of three, and had been a regular on the Nickelodeon show *The Adventures of Pete & Pete*. At 10, she made her film debut in *Harriet the Spy* (1996). Post-*Buffy*, she played supporting roles in films like Greg Araki's *Mysterious Skin* (2005), Burr Steers' *17 Again* (2009) and Kevin Smith's *Cop Out* (2010), though her finest hour in the movie realm may be Jeff Schaffer, Alec Berg, and David Mandel's delightful teen comedy *Eurotrip* (2004), a seemingly throwaway picture upon its release that's now considered a not-so-secret classic.

Trachtenberg plays Jenny, one-half of a set of twins who, along with some boisterous male buddies, sets off on a summer tour of Europe. The mishaps pile up: the kids get their money stolen, and realize they're stuck in Prague with only \$1.83, in American dollars, between them. Whatever will they do? Cut to Trachtenberg's Jenny in a luxurious spa bubble bath, making the most of a preposterously favorable exchange rate.

Trachtenberg, with her sunny demeanor and sly timing, was a marvelous presence in *Eurotrip*—it's a shame she didn't get to do

more comedies. And if her years on *Buffy* were the high point of her career, in retrospect they carry a sting: several of Trachtenberg's fellow actresses on the show, among them Charisma Carpenter, have in recent years accused Whedon of behaving inappropriately, and often cruelly, on set. (Whedon has [denied these allegations](#).) Trachtenberg said that it became a rule among the women that she, the youngest of them, must never be left alone with Whedon. They felt protective of her, just as the rest of us felt protective of her character. Even so, as a performer Trachtenberg radiated more than just vulnerability. She was a joyous presence too. As Dawn, she was rapturous reminder of our own adolescent enthusiasms, our eagerness to figure out our place in the world, our frustration at not being included in the activities of our older, cooler siblings and their friends. Trachtenberg spent the bulk of her teenage years playing Dawn: some *Buffy* fans grew up with her, while others, like me, merely watched her grow up. Either way, those years are a reminder of the gifts actors leave with us, even if, in those years of just showing up on set one day after another, they were unaware they were giving us anything at all.

<https://time.com/7262111>

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The Miracle of Gene Hackman

Zacharek is the film critic at TIME. She is the recipient of a Newswomen's Club of New York award and was a 2015 Pulitzer Prize finalist.



Actors want nothing more than for us to believe in them. But to watch Gene Hackman, who died on Feb. 26 at age 95, almost always meant wrestling with the creeping feeling that no one or nothing could be trusted. He [gravitated toward characters](#) whose core of lies came wrapped in the truth, or the other way around. Either way, no matter what character he was playing, you had to keep an eye on him every millisecond, to detect infinitesimal shifts in tone or feeling, sleight-of-hand elisions, a sly but peppery sense of humor that could hit you like the kickback on a shot of cheap single-malt. Put him in a cheap Santa costume, as a dogged narcotics cop hoofing through scrubby New York City streets in pursuit of a two-bit drug dealer, and you could see and feel his entropic rage busting through the chintzy red velour. That's just one

small example of what Hackman could do. His greatness is the kind you measure in molecules, the building blocks of everything.

Though he'd had small roles in movies and on television throughout the early 1960s (he'd been a Marine before that, and had studied journalism and television production on the G.I. Bill), Hackman was 36 before anyone really took notice. In Arthur Penn's 1967 *Bonnie and Clyde*, Hackman played Buck Barrow, older brother to Warren Beatty's Clyde; the performance was robust, nuanced, quietly shattering—Buck's death scene is a [moment of savage grandeur](#).

After that, Hackman worked so steadily—through the 1970s, '80s, and '90s—that it's hard to summarize his screen credits in even the most cursory way: In the junky yet compulsively watchable disaster film *The Poseidon Adventure* (1972), he plays a man of the cloth who challenges God to take his life and spare others (he gets his wish). He was fantastic at comedy, playing a [blowhard conservative senator](#) in *The Birdcage* (1996), and a cigar-smoking, chaos-inducing blind man in *Young Frankenstein* (1974). He appeared in westerns (among them *Wyatt Earp*, *The Quick and the Dead*, and *Unforgiven*, for which he won a Supporting Actor Academy Award). He showed the kid, [Tom Cruise](#), how it's done in Sydney Pollack's *The Firm* (1993), and played a Mississippi sheriff-turned-FBI agent in [Alan Parker's true-life Civil Rights drama](#) *Mississippi Burning* (1988). Younger audiences may know Hackman best for one of his later roles, as the cantankerous, hell-raising patriarch in [Wes Anderson's](#) *The Royal Tenenbaums* (2001): the sight of him crouched on a tiny racecar, virtually cackling with joy as he zooms along a stretch of concrete with his grandchildren, is one of the most delightful visuals of early-2000s cinema.

Hackman was great at playing bad guys, too: no one's chuckle was more unnervingly, thrillingly wicked. He turned Lex Luthor into a wonderfully supercilious dandy in several *Superman* movies. One of my favorite Hackman villains is the conniving country-boy

crime boss Mary Ann in Michael Ritchie's sublimely caustic satire *Prime Cut* (1972). Mary Ann runs a heartland meat-packing plant as a coverup for his deeply unsavory human-trafficking business; he has no qualms about chopping up his enemies and stuffing their pulverized remains into sausage casing. He's a snickering, back-slapping gladhander, so ingratiating he's repugnant—you can't tell if no one in his small rural community knows what he's up to or if *everyone* knows what he's up to. Hackman revels in it all: he loved going deep inside his characters, even the seemingly not-very-deep ones, and shaking them down for their secrets, which he'd then spread before us like a wealth of pennies.

This was an actor with a marvelous, pliable face, not necessarily movie-star handsome but made up of bits and pieces of star quality: the cleft chin, the ready smile, the slightly doughy nose that somehow made his face look comically regal. He was great-looking; he was average. He won his first Academy Award for his role as single-minded narcotics detective Jimmy "Popeye" Doyle in William Friedkin's 1971 film *The French Connection*. The movie features one of the [most famous, and greatest, car-chase scenes ever put on film](#), but the scene's extraordinary editing aside, Hackman is the human element that makes it sing. There's Popeye, behind the wheel of a car he's grabbed from an ordinary citizen, racing to outrun a subway train clattering along an elevated track. He sideswipes cars and trucks, narrowly avoids barreling into oncoming traffic, swerves to avoid a young woman pushing a baby carriage: there's both fear and ruthlessness in his eyes. Forget the dumb [mating of car and human](#) in Julia Ducournau's *Titane*; in *The French Connection*, Hackman and his runaway bride of a vehicle represent a far truer merging of man and machine. He's not just driving; there's some unnamable force driving *him*, filling him with its ferocious, angry power.



Yet Hackman's greatest performance, and one of the greatest given by any actor of any era, is that of the guilt-ridden surveillance expert Harry Caul in Francis Ford Coppola's *The Conversation* (1974). No actor has ever made paranoia so poignant. In the movie's seductive, unsettling dream sequence, Harry follows a mysterious woman—a version of the woman he's been trailing in his latest job, played by Cindy Williams—and begins revealing secrets to her that he has shared with no one else. He's trying to warn her of danger, but she can't seem to hear him. As she, along with the dream, begins to dissolve into mist, Harry says, "I'm not afraid of death," and though you think that's the end of the monologue, a beat later he adds, "I am afraid of murder." It's the afterthought that says everything.

At the end of the film, Harry tries to get on with the pleasures of life—or rather, the pleasure, singular, as he appears to indulge in only one: he unwinds by playing along with jazz records on his tenor sax. But the sounds he spins out can't dissolve the aural ghosts that haunt him. The phone rings. He answers and gets nothing but a dial tone. It rings again, and this time he hears the squeal of tape rewinding, and a voice warning him that *he's* now being surveilled. He begins dismantling his apartment, at first

systematically and then with increasing violence, in search of a bug he never finds. As a last resort, he busts open a statue of the Virgin Mary, the one knickknack on his shelf that his Catholic reverence had, until that moment, rendered untouchable. In the film's final shot, he's playing that horn again, amid the lonely wreckage of his apartment. Harry is a man who listens in because joining in isn't an option. He's the perennial outsider, and Hackman makes you feel it, like a cold, whooshing wind that reaches your bones.

That's just one example of the miracle of Gene Hackman. To watch him, in any one of his almost insanely varied roles, often meant sitting there with your jaw hanging in disbelief. *What* was he doing? *How* was he doing it? *Why* am I buying it? Great actors are also great salespeople, and Hackman was the kind of performer who'd have you metaphorically driving off the lot, happily, in a Cadillac you could hardly afford. Yes, you bought it. And you'd do it again.

<https://time.com/7262470>

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The Healthiest Way to Clean Your House

Matt Fuchs lives in Maryland and writes about health, science, and technology. Follow him on [X](#).



The pandemic inspired new vigilance about germs, including more frequent and thorough house cleaning—changes that [stuck with many of us](#) years later. But while cleanliness is a virtue, germ fixation is not. Cleaning your house too thoroughly, or with the wrong kinds of products, can be harmful to health.

Of particular concern is the overzealous use of potent disinfectants that kill 99% of common bacteria. “The pandemic has had a long-term impact, and people use stronger disinfectants now,” says Orianne Dumas, a respiratory epidemiologist at the French Institute of Health and Medical Research.

“We’re cleaning more than we ever have, for both good and bad, depending on how people do it,” says Jill Heins Nesvold, senior director of indoor air quality at the American Lung Association.

Here's what researchers know about the risks and how to clean house effectively while protecting yourself and those around you.

Concerning ingredients

Studies [reveal](#) that the air inside our homes is more polluted than the air outdoors, and a portion of these toxins come from household cleaners. They contain scores of chemicals linked to health problems, including those that affect breathing. However, these risks depend on the dose.

In 2023, the nonprofit Environmental Working Group [researched](#) 30 common cleaning products and found that all together, they contained 193 chemicals hazardous to health. Many are volatile organic compounds, or VOCs, such as acetone, methanol, and glycols like 2-butoxyethanol. These evaporate easily into the air, where they can be inhaled, trigger allergic reactions, and irritate the eyes, nose, and throat. Too much irritation can inflame and damage the airway, potentially resulting in breathing issues. Higher asthma rates have been observed in people who [clean professionally](#) and even in ordinary people exposed to these irritants as infrequently as [once per week](#).

There's also an association with lung weakness. One study found professional cleaners have a [43% higher risk](#) of developing chronic obstructive pulmonary disease than the general population. Dumas says that more research is needed to establish this COPD link in people who just clean their own houses, who have less exposure.

Read More: [Are ‘Broken Skin Barriers’ a Real Thing?](#)

The potential impacts go beyond the respiratory system. Once inhaled, VOCs can mimic the activity of hormones, [disrupting](#) the endocrine system. Such disruptions may [increase](#) cancer risk. As with COPD, some [studies suggest higher cancer rates](#) among

cleaning professionals, but research hasn't shown the same link among casual household users, Dumas notes.

Overexposure can mean different things. Big doses of harsh disinfectants can disrupt health rapidly, while lower amounts used too frequently over the years can also be harmful. "You could use a cleaning product once per week for 10 years, or two times per day for one year, and get the same exposure," Heins Nesvold says. "With a lot of use, you'll have the effects more quickly."

Use just a few high-quality products

To protect yourself while cleaning your house, start by using fewer products to limit contact with lots of chemicals. You could select a multi-purpose cleaner instead of the specialist approach: one for glass, another for the bathtub, a specific floor product, and so on. "Reevaluate your product arsenal to find places to cut back," advises Samara Geller, senior director of cleaning science at EWG.

Another easy swap: Instead of a kitchen-specific cleaner, use dish soap and water on your counters. "You don't necessarily need a unique kitchen product," Geller says.

Disinfect only when necessary

Don't overdo it with bleach and other strong disinfectants. "Cleaning should not be synonymous with disinfection," says Doug Collins, a chemist at Bucknell University who studies cleaning products.

You want the cleaning horsepower of a disinfectant when up against serious filth like bacteria, viruses, mold, and fungi. That's why hospitals use disinfectants daily. For your home, though, plain soap and water will often work just fine. "Soap is really good at grabbing greasy stuff," Collins says. He suggests alcohol-based

products—ones without added chemicals for killing germs—as another example of basic cleaners that do the job.

Improper use of bleach is especially harmful. Bleach is a great disinfectant because it's a strong oxidant, but this quality also makes it potentially dangerous. The body has antioxidants that “tamp down on bleach’s oxidative potential and counteract it,” Collins explains, but if you’re exposed routinely, “there’s leakage through that defense mechanism that can cause damage.”

Read More: [*Is Intermittent Fasting Good or Bad for You?*](#)

Collins’s two small children have a knack for turning his bathroom into a crud-filled wrecking zone. When they do, he reaches for bleach, but that’s the rare exception.

“We do need to disinfect, but not every day, and maybe not even every week,” Dumas says. A few times per month only, recommends Asa Bradman, an environmental health scientist at the University of California, Merced.

If there’s an immunocompromised person in the household, “that’s a different circumstance,” Geller says, warranting more disinfectant. Another example from Heins Nesvold: if an ill house guest sneezes repeatedly, a thorough cleaning is probably wise.

When you disinfect, do so in a targeted manner. Focus on high-touch surfaces like faucets and doorknobs, advises Akiko Iwasaki, professor of immunobiology at Yale University.

“While excessive use of cleaning products and disinfectants containing synthetic chemicals may harm the human body, when used properly, they can reduce transmission of infections,” Iwasaki says.

Consider bleach alternatives

You could opt for other bleach alternatives besides soap and alcohol, such as hydrogen peroxide. “We recommend hydrogen peroxide because it’s effective, and pure forms break down into water and oxygen,” Bradman says. It’s easy to remove from surfaces, he adds, whereas bleach often leaves an irritating residue lasting several days after cleaning.

Vinegar [breaks up dirt](#) with less risk than bleach, too, though it’s not as powerful. Collins recommends distilled white vinegar and other acid-based cleaners like lactic or citric acid. You still have to be careful, though. Inhaling vinegar directly could cause “respiratory triggers,” says Bradman.

Read More: *[6 Things to Eat to Reduce Your Cancer Risk](#)*

Avoid mixing products. Never combine bleach with vinegar, [ammonia](#), or products that have hydrogen peroxide, such as toilet bowl cleaners. The resulting chemical reactions release gases that are toxic and damaging. One large exposure to chlorine gas—produced from mixing bleach and acidic cleaners—can cause [reactive airways dysfunction syndrome](#) (RADS), an irritant-induced form of asthma, Geller says.

Follow directions on the bottle that spell out safety precautions, including dangerous mixtures. “It’s key to choose the right product for the right job and follow the label,” says Nicholas Georges, senior VP of scientific and international affairs for the [Household and Commercial Products Association](#), which represents companies making these products.

Go fragrance-free

Products labeled fragrance-free may be preferable. This is a tricky one, as we often take satisfaction in cleaners with fresh scents, like pine or lemon—a reward for battling the dirt.

However, some of the chemicals responsible for these smells, such as limonene, are the very VOCs that groups including EWG have identified as potentially problematic. Research shows that 35% of Americans using fragranced products report [symptoms](#) like breathing issues and migraines.

Fragrance-free cleaners release fewer VOCs. “They’re healthier,” says Bradman, who steers clear of strong scents.

Georges notes that companies perform risk assessments on cleaners to [ensure safety](#) and reduce liability. Products must meet fragrance-ingredient standards for protecting health developed by the [International Fragrance Association](#).

Try certified “green” cleaners

Several organizations certify specific cleaning products as better for health. The American Lung Association and EWG recommend looking for cleaners certified as [Safer Choice](#), a label created by the U.S. Environmental Protection Agency. “We’re big supporters of Safer Choice,” Georges says.

In 2019, EWG developed its own [EWG Verified](#) certification for cleaning products. Specific ingredients can also be checked for toxicity against lists [compiled by EWG](#) and [the EPA](#).

Another consideration is whether a product is advertised as “green,” suggesting it uses natural ingredients. Separate studies by EWG and [Bradman](#) found that green products tend to have fewer hazardous VOCs.

The [quality of these products varies](#), though. “There’s a lot of diversity in these green products,” Dumas says. Some government regulations aim to control false product claims about being green, but there’s a [lack of enforcement](#). Dumas has found that some green cleaners contribute to asthma risk, partly because natural

ingredients aren't necessarily good for you. For instance, some green cleaners include essential oils, which "may be natural, but could still be volatile" and therefore irritating, Bradman explains.

Read More: [*Green Tea Is Even Better For You Than You Think*](#)

Make sure to check the product's chemical ingredients on its label and online. "Transparency is critical," Georges says. When products have at least one chemical that's an allergen—meaning it could affect people with sensitivities, such as asthma—the label has to disclose this, Georges explains. And the specific ingredients, both allergens and other ingredient types, must be listed on the company website or product-specific sites, in addition to on the label, he says.

In its 2023 study, EWG found some chemicals in the air that weren't listed on product labels. "Oftentimes the label is only scratching the surface of what's contained in the formula," Geller says. This discrepancy doesn't necessarily mean that companies are being deceitful. Rather, it's hard to predict the byproducts of chemicals once they're "in the bottle and co-mingling," Geller says.

Another unknowable factor is what substances the chemicals will encounter after they're released in people's homes, such as particulate matter. These secondary reactions can form new substances like formaldehyde, a known carcinogen, Geller explains.

Air things out

People can further reduce their exposures by circulating the air during cleaning and immediately after. Open windows, run fans, and keep the HVAC system on. "Really get that air circulating to move the chemicals out of the space," Geller says. Collins runs the

bathroom fan for at least 15 minutes after he's cleaned his kids' mess.

You can also reduce your chemical exposure by protecting your skin and airways while you clean. For heavy-duty cleaning, consider wearing gloves and an [N95 mask](#). Limit use of sprays that contain chemicals called quaternary ammonium compounds, Collins says. These "quats" differ from VOCs in that they don't evaporate quickly into the air, but when sprayed they're easily inhaled, risking irritation and endocrine disruption. Even sprays without quats could harm health if they're breathed in too much, so try spraying into a cloth first and then wiping surfaces with the cloth. This should reduce how much spray a person inhales, especially if they wear a mask, Collins says.

Read More: [6 Health Myths About Oils](#)

Those who are especially sensitive to chemicals, including [kids](#) and people with asthma, should go outside during cleaning if possible. In a 2025 [study](#), Dumas found that the overuse of cleaning products in daycares is associated with wheezing symptoms in children under age three. Bradman helped to develop a [toolkit](#) on safe cleaning protocols for daycare providers. [Pregnant women](#), too, should take precautions, since some research shows a link between exposure during pregnancy and childhood asthma.

If you're craving that fresh-as-morning-dew smell after you tidy, you can create it without fragranced cleaners. Geller recommends simmering a pot of water with your favorite herbs and spices.

Just don't shy away from disinfectants when you're looking to banish unhealthy mildews and other tough-to-clean causes of malodor. "The Lung Association isn't anti-cleaning product," Heins Nesvold says. "We just want people to be really knowledgeable about what they're putting into the air they breathe."

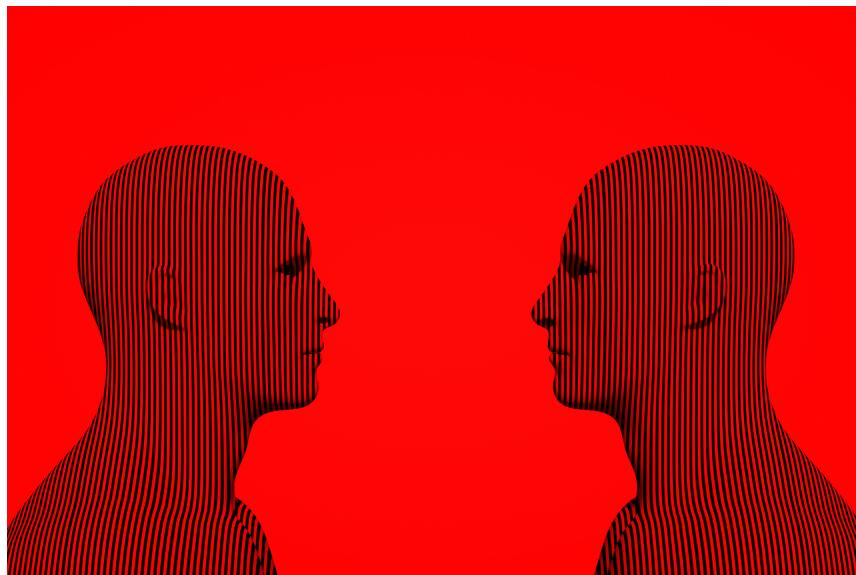
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The Nuclear-Level Risk of Superintelligent AI

Hendrycks is the director of the Center for AI Safety

Schmidt is the former CEO and Chairman of Google



January's unveiling of [DeepSeek R1](#), China's most advanced AI model to date, signals a [dangerous inflection point](#) in the [global AI race](#). As President Donald Trump warned in his recent address on technological security, this development represents nothing short of a "[wake-up call](#)" for American leadership. What's at stake isn't merely economic competitiveness but perhaps the most geopolitically precarious technology since the atomic bomb

In the nuclear age that followed Oppenheimer's creation of the atomic bomb, America's technological monopoly lasted roughly four years before Soviet scientists achieved parity. This balance of terror, combined with the unprecedented destructive potential of these new weapons, gave rise to mutual assured destruction (MAD) —a deterrence framework that, despite its flaws, prevented catastrophic conflict for decades. The stakes of nuclear retaliation

discourage each side from striking first, ultimately allowing for a tense but stable standoff

Today's AI competition has the potential to be even more complex than the nuclear era that preceded it, in part because AI is a broadly applicable technology that touches nearly every domain, from medicine to finance to defense. Powerful AI may even automate AI research itself, giving the first nation to possess it an expanding lead in both defensive and offensive power. A nation on the cusp of wielding superintelligent AI, an AI vastly smarter than humans in virtually every domain, would amount to a national security emergency for its rivals, who might turn to threatening sabotage rather than cede power. If we are heading towards a world with superintelligence, we must be clear-eyed about the potential for geopolitical instability. We map out some of the geopolitical implications of powerful AI and propose a cohesive "Superintelligence Strategy" in a new [paper](#) released this week.

Let us imagine how the U.S. might reasonably respond to rival states seeking an insurmountable AI advantage. Suppose Beijing established a lead over American AI labs and reached the cusp of recursively-improving superintelligence before us. Regardless of whether Beijing could maintain control over what it was building, U.S. national security would be deeply and existentially threatened. Rationally, the U.S. might resort to threatening sabotage in the form of cyberattacks against AI datacenters to prevent China from achieving its goal. We might similarly expect Xi Jinping—or Vladimir Putin, who has little chance of obtaining the technology first—to respond in a similar fashion if we approach recursively-improving superintelligence. They would not stand idly by if a U.S. monopoly on power was imminent.

Just as the destabilizing pursuit of nuclear monopoly eventually gave way to the stability of MAD during the nuclear era, we may soon enter a parallel deterrence dynamic for AI. If any state that attempts to seize AI supremacy can expect the threat of preemptive

sabotage, states may be deterred from pursuing unilateral power altogether. We call this outcome Mutual Assured AI Malfunction (MAIM). As nations wake up to this possibility, we expect it will become the default regime, and we need to prepare now for this new strategic reality.

MAIM is a deterrence framework designed to maintain strategic advantage, prevent escalation, and restrict the ambitions of rivals and malicious actors. For this to work, the U.S. must make clear that any rival destabilizing AI project, especially those aiming for superintelligence, will provoke retaliation. Here, offense—or at least the credible threat of offense—is likely the best defense. That means expanding our cyberattack capabilities and enhancing surveillance of adversary AI programs.

While building this deterrence framework, America must simultaneously advance on two additional fronts: AI nonproliferation and domestic competitiveness.

For nonproliferation, we should enact stronger AI chip export controls and monitoring to stop compute power getting into the hands of dangerous people. We should treat AI chips more like uranium, keeping tight records of product movements, building in limitations on what high-end AI chips are authorized to do, and granting federal agencies the authority to track and shut down illicit distribution routes.

Finally, to maintain a competitive edge, the U.S. should focus on building resilience in its supply chains for military tech and computing power. In particular, our reliance on Taiwan for AI chips is a glaring vulnerability and a critical chokepoint. While the West has a decisive AI chip advantage, Chinese competition could disrupt that. The U.S. should therefore step up its domestic design and manufacturing capabilities. Superintelligent AI poses a challenge as elusive as any that policymakers have faced. It is what theorists Horst Rittel and Melvin Webber called a “wicked

problem,” one that continually evolves with no final formula for resolution. MAIM, supplemented by robust nonproliferation and renewed investment in American industry, offers a strategy grounded in the lessons of past arms races. There is no purely technical fix that can tame these forces, but the right alignment of deterrence, nonproliferation, and competitiveness measures can help the United States navigate the emerging geopolitical reality of superintelligence.

<https://time.com/7265056>

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The Case for Returning U.S. Public Lands to Indigenous People

Whittle is an enrolled tribal citizen of the Caddo Nation of Oklahoma and a descendant of the Delaware Nation of Oklahoma. Whittle's cultural teachings guide the work that he does as a storyteller. Whittle tries to weave his Indigenous teachings of reciprocity into his creative process. Every story shared with him is a gift, and he strives to treat them that way



Since the start of Trump's second term, his administration has [fired thousands of federal workers](#) across multiple public lands agencies, including the National Park Service, the Forest Service, the Bureau of Land Management, and the U.S. Fish and Wildlife Service. The effects of this are vast: It's going to have a profoundly negative impact on the environment and the way millions of Americans enjoy public lands, cause immeasurable harm to America's wildest places, and devastate the [economies](#) built around them.

After serving 12 years as a backcountry wilderness ranger for the U.S. Forest Service, I'm convinced there is an alternative: the U.S. needs to return its public lands to Native Americans. In fact, I

believe that might be the only way to save our parks and forests from corporate privatization and destruction, as well as preserve public access to them. If the U.S. won't properly care for its public lands, why not return them to their original caretakers?

This isn't a new idea. Native Americans argued that treaty law required "abandoned" federal land to be returned to tribes during the occupation of Alcatraz Island by the American Indian Movement in the 1960s. In more recent years, the Landback Movement has given rise to increased calls for the return of territorial land to Indigenous Nations, and the return of land management based in Traditional Ecological Knowledge—expertise gathered from thousands of years of having deep relationships with specific environments. There's a strong legal argument that land return is constitutionally required as damages due for hundreds of treaty violations. However, there's also a lot of data showing Indigenous land management is more ecologically sound than government or industrially managed land. For instance, Project Drawdown, a global leader in science-based climate change solutions, estimates that returning 1,000 million hectares of land to Indigenous tenureship by 2050 would sequester over 12 gigatons of carbon dioxide.





Public lands are responsible for over 20% of U.S. annual carbon emissions thanks to countless oil and gas leases across millions of acres of land and waterways, in addition to many other kinds of industrial leases. Returning those lands to Indigenous Peoples could eventually return them to being a net carbon sink—ecosystems that absorb more carbon dioxide from the atmosphere than they release—by massively reducing industrial extraction and increasing protection and restoration. This can be done while preserving the ability of all people to have access to healthy relationships with the land.

Nobody proposes that Indigenous management will always be perfect, or that every extractive practice will automatically cease. However, there is more than sufficient evidence that the land, and all those who value and depend on its well-being, would benefit immensely from its return. I've seen it personally, as an enrolled tribal member of the Caddo Nation and a descendant of the Delaware Nation, and in my work as a wilderness ranger. Year after year, I've been frustrated watching the government deny our department the funds we need to fully serve our duties to the land and public because it's at the bottom of their priority list. I was taught by my Indigenous elders that nothing is more important than caring for the land; not just because the land also cares for us, but because we are part of the land and our identities are rooted within it.

Sustainability begins by following what many Indigenous communities refer to as the [Natural Laws](#). They include principles such as: *never take more than you need; always leave something for those who come behind; and always give back for what you receive*. The laws teach us that nature builds order into the ecologies we are a part of, and it's our job to follow it no matter how we utilize nature's gifts. They also teach us the difference between taking from nature and receiving from nature. Taking something without reciprocity is an act of violence. To receive and give a gift is an act of love and respect. Indigenous People seek to

emulate that in our relationships with nature. Our cultures view the natural world as our relatives rather than our “resources.” This creates reciprocity and sustainability with nature and each other.



Indigenous civilizations have proven that societies can thrive sustainably for thousands of years through application of the Natural Laws. Those principles can even be applied to large-scale endeavors such as agriculture and trade. Native American agricultural technologies provide over [60% of the world's food supply today](#). Imagine a world without potatoes, tomatoes, or corn, for instance. Indigenous societies developed thriving civilizations around our relationships with plants and animals, working with

nature to support human communities while following the Natural Laws.

Many of those practices are becoming more widely known today as “regenerative agriculture.” Better yet, they can still be used on public lands to [sustain local communities](#) in place of harmful industrial extraction. [Localizing food production](#) can not only replace fossil fuel extraction on public lands, it can also reduce dependence on it for shipping.

The climate benefits of Landback go beyond reducing our use of fossil fuels. Indigenous history shows us that the Natural Laws can be applied to the way our communities trade resources with each other to build economies of reciprocity. For example, the [Wampum Economy](#) built a process of trade and exchange that [facilitated living in sustainable abundance](#) with nature in the Eastern Woodlands. Wampum (a quahog shell bead) is not a monetary currency, though it's often been mischaracterized as such. Rather, it is representative of a familial bond formed in the exchange between communities, be they human or otherwise.





Wampum built an economy modeled after the ecology itself and the reciprocal relationships woven into it. Returning economic use of the land to a model of engagement that follows the Natural Laws can rectify the harm that extraction and consumption have done to our climate. Indigenous people learned from the land and its older communities of life that the land manages us—we do not manage the land. The impacts of climate change are showing everyone that now.

That's why I think tribal members from all nations should enjoin a class action [lawsuit](#) for damages due for treaty violations—and settle for the return of federal lands. Not just because justice and Constitutional law demand it, but because Natural Law does, too.

Landback will be good for every American, regardless of their race, politics, or religion. For instance, many tribes already offer areas for [public recreation](#). Not only that, there's a long history of [Natives leasing land](#) to non-Native families. The public land leasing system is set up to benefit big corporations over the working class families who also utilize it. Tribal entities are more likely to level the playing field by preferencing smaller family operations who are not seeking to take more than they need from the land, but simply to provide for themselves.

Trump's attacks on America's public land management agencies are simply the culmination of a decades-long [political assault](#) on the ability of federal land managers to properly care for the land sustainably. There's good reason to believe they are setting land management agencies up to fail so they can justify [privatizing America's public lands](#). The Republican Party platform [says](#) they will, "open limited portions of Federal Lands to allow for new home construction." One can imagine what real estate development on federal land might look like under Trump.





The many hardworking civil servants who've lost their livelihoods to politics do apolitical things like clean bathrooms and maintain facilities in campgrounds, enforce regulations, fight fires, clear trails, issue grazing permits and timber leases, conduct ecological research, remove litter and refuse, restore environmental damage, protect archeological sites and Indigenous treaty rights, educate and inform visitors, and a long list of other important land management duties.

Who's going to do all that now?

I have never seen the government come close to providing the care and protection the land needs in over a decade of service as a

federal ranger. Not just because of the constant budget shortfalls, but because of the constant political pressures on policy making, as well. It's not the fault of the people on the ground who are passionate about their jobs and who care for the land, but rather that of a system, which will never let them do what is best for it.

So why not return the land to those who've demonstrated over thousands of years they will care for it sustainably? Why not return the land to those whose identities are defined by it?



<https://time.com/7262838>

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‘The Party Is As Weak As I’ve Ever Seen It.’ Jared Golden’s Tough Message For Democrats

Alter is a senior correspondent at TIME. She covers politics, social movements, and generational change, and hosts TIME's Person of the Week podcast. She is also the author of *The Ones We've Been Waiting For: How a New Generation of Leaders Will Transform America*. Her work for TIME has won a Front Page Award from the Newswoman's Club of New York and has been nominated for a GLAAD Media award.



*This article is part of [The D.C. Brief](#), TIME’s politics newsletter.
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Jared Golden knows a thing or two about how swing voters think of the Democratic Party. First elected to represent Maine’s 2nd congressional district in 2018, Golden has managed to keep his seat ever since in a red-leaning district that President Donald Trump carried by nearly 10 points in November. Golden predicted Trump’s victory, and the self-described “progressive conservative” has since tried to spread a message of tough love for his fellow Democrats.

In an interview with TIME, Golden discussed how the party should speak to swing voters, how to rebuild trust, and how to reposition the working class at the core of the Democratic coalition.

This interview has been edited and condensed for clarity.

Can you give us your brief take on what went wrong for the Democrats, and why?

President Biden ran as someone who was going to kind of bring the norm back, right? And by the time he took office, it was like a swapped narrative, where it was not a return to normalcy, but instead a mandate for revolutionary change, and he was going to be the next FDR. I think it was a misreading of the mandate that's been given to the party from voters.

What's the tough-love message you have for your party?

I think the party is as weak as I've ever seen it. A lot of people are talking about our need to win back the working class, and there seems to be a growing consensus that it's not as it was described in 2017, as a *white working-class* problem, but rather as a *working-class* problem. And while we're searching for answers about how to re-engage with working-class people, perhaps we shouldn't start by attacking something that President Trump is putting forward that is broadly popular with the working class, which is tariffs.

I'm not saying that there aren't trade-offs involved potentially. But I think that for working-class people that live in communities that have been on the losing side of globalization and free trade, that is a stand-in for letting them know: we hear you. We see the effect of 20, 30, 40 years of policy, and we're committed and open-minded to trying things to fix it.

As one of the only Democrats left representing an Obama-Trump district, what do you wish your party understood about

your voters?

My district went Obama in '08, Obama in '12, and Trump in every consecutive Presidential election [since]. My perspective is that there are still a lot of swing voters, even though the national narrative is that there are none. I don't think that either party is loved by a lot of these voters. And so anyone that suggests that the pathway forward is to just kind of turn our back on voters like those that I represent is wrong. They're very much up for grabs, but not if we are out there saying we're not interested.

I've worked really hard to establish trust with people. And I think as a result I have some leeway, for people to say, 'I don't agree with Jared on this one particular issue, but I trust him in general.' Early on in my time here in Congress, people were telling me, you'll never get Trump supporters to support you. You can try, but it will never bear fruit. I kind of rejected the premise that you just have to play to your base.

If you had a magic wand, and you could remake your party in a way that would appeal to the swing voters who elected you, what would that party be?

There's a lot of things about the Democratic Party that are very good and that play very strongly with the American electorate. The Democratic Party is the party of the New Deal, and we should stay committed to that. That's a way of saying Social Security, Medicare, Medicaid. I think part of the problem of the moment is that the New Deal contract with the American people has been eroding. And instead of focusing on piecing it back together and strengthening it, we are often trying to talk about new things. So, let's double down on our past commitments to the American people: we're gonna make sure you have a secure retirement. We're gonna make sure that you have affordable healthcare.

I am very pro-union, and I think that is key to my success, and key to the well-being of the country as a counterbalance to economic forces. But I've started taking a slightly different tone than in the past. I will say we should tax the rich to reduce the deficit. The state of our budget and our debt is bad for the country and bad for working families. I'm just acknowledging that. It seems like a lot of people in the Democratic Party want to brush that aside.

What should be the core that the party rebuilds itself around?

We need big reform, not tinkering around the edges. I think we should get serious about class. Use that as our starting place, and then ask ourselves, which class do we want to represent? My thesis would be the working class. They live everywhere. We have to go compete everywhere, and we have to find new candidates. I think we should think really long and hard about who we're recruiting and why.

We have to ask ourselves hard questions about what we are putting forward that is not popular, and be willing to back off of those things. We should ask, what's the Republican Party putting forward that is? And maybe we should make those things ours.

What does “progressive conservative” actually mean?

I personally reject the whole left-right debate. I reject words like *centrist* or *moderate*. I don't think those terms really mean much to voters. I think about things very much along class lines. And I think the party has obviously been judged on being very focused on identity politics, and I think that cuts up the working class rather than unifying it.

Think about abortion. I think there's a lot of people who really think that choice is the right starting place, but that doesn't mean that they are going to be for no limits. The war in Ukraine: I think that people are comfortable understanding that Russia has been an

antagonist of American interests, that they have tried to attack and undermine American society and democracy, view them as a national security threat, and still be skeptical of American foreign policy. Essentially, you can see Russia as a threat and still question whether or not we should be risking getting drawn into a war. I'm only describing what I think a lot of people are thinking.

At its core, it's about nuance and attention to details. Getting it right, unshackling yourself from a loyalty to ideology. And instead loyalty to place in representation, not just of the people that voted for you, but everyone that you represent. I'm just rejecting the idea that I have to be one or the other.

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Weight-Loss Drugs Like Ozempic Can Help Alcohol Addiction

Park is a senior health correspondent at TIME. She covers the COVID-19 pandemic, new drug developments in cancer and Alzheimer's disease, mental health, HIV, CRISPR, and advances in gene therapy, among other issues in health and science. She also covers the Olympics and co-chaired TIME's inaugural TIME 100 Health Summit in 2019. Her work has won awards from the New York Press Club and recognition from the Deadline Club. In addition, she is the author of *The Stem Cell Hope: How Stem Cell Medicine Can Change Our Lives*. Follow her on Instagram at [@aliceparktime](#).



Since [weight-loss drugs](#) that target the hormone GLP-1 have surged in popularity, some [additional health benefits](#) have emerged. Beyond helping people shed pounds, they also [lower the risk of heart disease](#) and [sleep apnea](#)—and the U.S. Food and Drug Administration has acknowledged these benefits by approving changes to the drugs' labels.

Now, one type of weight-loss medication is proving helpful with another health issue. In a [study](#) published Feb. 12 in *JAMA Psychiatry*, researchers report that semaglutide, better known as Ozempic or Wegovy, helped people with alcohol addiction reduce their craving and drink less.

The trial involved 48 people with alcohol-use disorder, which reflects a pattern of disruptive drinking and included heavy drinkers, which for men means consuming more than 14 drinks a week, with two or more heavy-drinking events during the week; for women, it means consuming more than seven drinks weekly with two or more of these drinking episodes. No one in the study was receiving treatment for their drinking, and most were overweight or obese.

Researchers divided people into two groups and compared weekly injections of semaglutide to placebo, while tracking differences in the amount of alcohol people drank and how often they drank over 2.5 months. The study was uniquely constructed: Participants came into a lab designed to look like a living room, where they could relax, watch TV, and drink as much of their favorite alcoholic beverages as they desired for about two hours. The researchers recorded how much they drank at the beginning of the study—before they received any medication or placebo—and then again at the end of the study. In between, participants came in for weekly visits to receive their injections and answer detailed questions about their alcohol consumption over the previous week.

Read More: [*The Health Risks and Benefits of Weight-Loss Drugs*](#)

While people taking the drug didn't drink any fewer number of days than people in the control group, they did drink less alcohol at the end of the study, says Christian Hendershot, professor of population and public health science and director of clinical research at the USC Institute for Addiction Science, and the lead researcher of the study. This suggests that the rewarding and

addictive appeal of alcohol might have been diminished for them—similar to the way food is less enticing for those taking semaglutide for weight loss. “These medications don’t make people stop eating altogether, but reduce the urge to eat so there is appetite reduction and satiety,” he says. “I think this is very much analogous.”

Hendershot says he expected to see an effect of semaglutide on alcohol-use disorder, but not to this extent. Drugs like semaglutide affect the GLP-1 hormone, which works on the reward and satiety regions of the brain. [Previous studies](#), mostly in animals, showed that these drugs could dampen addiction and cravings for substances including alcohol. Non-scientific, anecdotal reports from people taking semaglutide to treat diabetes or for weight loss also suggested that the medications curbed the desire to drink.

“The magnitude of the effect, specifically at these doses, was somewhat surprising,” Hendershot says. People in the study receive the two lowest doses of semaglutide; the dose used for weight loss is about four fold higher.

Read More: [*Why, Exactly, Is Alcohol So Bad for You?*](#)

The reduction in craving that people reported, and the reduction in the amount they drank in the living-room lab at the beginning of the study vs. the end, is similar to the effect of existing prescription treatments for alcohol-use disorder, such as [naltrexone](#), Hendershot says. But while the FDA has approved three such treatments, they are “[underutilized](#)” for reasons including stigma and a lack of awareness, he says.

That’s where GLP-1 medications could have an advantage, since they are widely popular and familiar to many people in both the public and in the medical community. But while his small study is encouraging, Hendershot says it’s too early to use GLP-1 drugs off label to treat alcohol-use disorder. “We know people are prescribing GLP-1 receptor agonists off label for this purpose, but

it's best to recommend instead that they use FDA-approved treatments that are already available," he says. "We really would need a handful of larger clinical trials to address that question, and we are still pretty far out from that level of conclusiveness."

More questions remain about the best dose of these medications to potentially treat alcohol addiction, as well as whether drugs that target multiple weight-loss-related hormones—like [tirzepatide](#), sold as Mounjaro and Zepbound—could have even better results. Hendershot's team is researching these questions.

"Right now, this data points to a fairly consistent picture across animal studies, and now early human findings, of GLP-1's effect on alcohol-use disorder," he says. "The next task is to generate more human data from larger clinical trials."

<https://time.com/7221684>

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I'm a Disabled Woman. Is That My Brand?

Taussig is the author of [Sitting Pretty: The View From My Ordinary Resilient Disabled Body](#)



My son Otto started preschool this fall. The previous year, during every daycare pickup, our reunion was routinely punctuated by the same questions from the other 3-year-olds in the room: *Why are you in that wheelchair? What happened? How do you get in a car?* I am used to questions. I've answered them my entire life with little fanfare. But these kinds of interactions started to feel different as soon as my son was there to bear witness to them, over and over again.

As we prepared for this fresh start with a new group of people, it felt like a chance to move out of autopilot and reset the terms with intention. I wanted an approach that felt better than the previous year's, but I struggled to imagine what that might look like. What would it take to shift a dynamic that felt so innate and inevitable? Was it even possible for me to call the shots in a room full of all-consuming curiosity? And what exactly were my goals here?

I mulled it over with anyone who would listen. Some people thought I should have a class visit where I explained my disability to the kids, maybe read a relevant book, and answered all their questions. To be fair, I am a good candidate for this kind of conversation. I started using a wheelchair when I was 6 years old, and when I discovered disability studies in my late 20s during graduate school, I understood, for the first time in my life, disability as an identity. This changed everything for me. Suddenly, I was rethinking an entire meaty part of my life that had remained relatively unexamined. I started creating what I called “mini-memoirs” on social media that brought readers into my firsthand experience of disability – the feeling of being stared at as I grip the side of my car and drag my feet across the pavement every time I fill my tank with gas, of being prayed over by strangers for my healing, of realizing as a little girl that none of the princesses looked like me.

Read More: [*A Lawsuit Threatens the Disability Protections I've Known My Whole Life*](#)

My wheelchair became a prominent feature on my Instagram page. When I was younger, I took care to keep my disability out of photos, frequently cropping my wheelchair out of the image. On one occasion, I took out a pair of scissors and cut my legs off a print because they looked “too paralyzed.” As I took the reins on my account, I relished the chance to pull disability back into the frame – to throw more images into the world that disrupt and expand the stories and emotions so often put upon disability, to show my paralyzed legs and wheelchair existing in the middle of graduations and cute couple selfies and pregnant bellies. But also, somewhere in the soup of motivations, I started to understand the wheelchair as part of my brand – the image people recognize as they scroll. Over time, I rarely deviated from posts directly tied to disability. Even if it wasn’t at the center of the story, I made sure to connect the dots with a bold line for readers. These lines weren’t untrue, and they highlighted connections so often missed, but as a

collection, they inevitably drew a portrait missing some dimension. Still, by definition, brands aren't meant to capture every layer. They're curated.

While disability is a newer identity to be included under the banner of marginalized groups, this embodiment catapulted my writing into the public conversation in 2020. It was a time when industries and algorithms sought to amplify overlooked voices like never before. Companies started disability affinity groups, and diversity, equity, inclusion, and accessibility (DEIA) programs had funding to bring in folks who could educate on their distinct experiences. It was within this landscape that my book, *Sitting Pretty: The View From My Ordinary, Resilient Disabled Body*, made its way into the world. The book captures large swaths of my life, focusing the narrative through the sharp lens of disability. Five years after its publication, I still travel around the country speaking about disability, ableism, accessibility, and inclusion. It's a dream to do this work.

Which might explain why I was surprised this fall when I realized I wasn't eager to visit my son's class to educate on disability. This is my brand, my wheelhouse, my area of expertise! What was this hesitation? And yet I found myself much more excited to talk to the kids about their pet kitties or the sparkles on their shoes than my legs or my wheelchair. I understand my difference is unavoidably visible, and it might be unfair to expect these kids to accept that difference without question, but I noticed the longing. If every other parent who entered the class was allowed to be just another human in the room, I wanted that, too. I wanted these kids, and especially my son, to see that our family embodied one splash of difference in a sea of differences.

To be very clear, I'm not interested in being seen as "more than my disability." I am deeply rankled any time someone says, "Disability doesn't define you." Disability is not an unfortunately

placed pimple I need to hide or a tragedy I need to triumph over. I claim the titles disabled mother and disabled writer joyfully. So I don't hold up my new, complicated emotions with pride or point to them as a revelation of the "right" way to feel. I hold them up – for you and for me – as an exercise in paying attention. Can a longing help us clarify the goals? The long-haul, one-day dream?

This longing didn't stay contained within the walls of my son's classroom. About a month after the school year started, I launched a [podcast](#) with my friend Caitlin Metz. At the top of the show, Caitlin and I introduce ourselves with our identities at the forefront: "I'm Caitlin Metz, a nonbinary illustrator and designer. And I'm Rebekah Taussig, a disabled storyteller and writer." During our weekly recordings, I'm not thinking about branding – I'm looking at my friend across a screen, giggling and aching at the impossible project of being a parent and a person. So many times, as I pull off my headphones at the end, I realize, yet again, disability had been left somewhere in the background of the discussion, even in conversations where this particular point of view would be quite relevant, like our episode "Should We Have a Second Baby?" or our interview with cartoonist Sacha Mardou, "An Ode to Therapy." In both, I mentioned disability only in passing. It was only in retrospect that I wondered, *Did I miss the mark? Should I have talked more about disability today? What ideas are worth sharing with a public audience? Am I failing to offer the content people want from me? Am I doing a disservice to my career?* Soon the angst pressed deeper than branding or career building.

Read More: [*The Cruelty of Medicaid Work Requirements*](#)

I thought back to a few weeks before Otto started at the new school when I got a call from the director. Her voice sounded a bit nervous as she explained that they were going through their building, trying to make sure everything would be easily accessible for me when they realized they didn't always know what to look for. "You're the

expert on what you need,” she said. “Would you mind coming to campus for a quick visit so we can move through the spaces together and see if anything isn’t working for you?” This school is the third place we’ve taken Otto for childcare and the first that asked me what I need as a parent who uses a wheelchair. I started to cry. “Thank you for asking me,” I said. It was a vulnerable, brave question that exposed them to my potential criticism. What if I didn’t like them calling attention to my difference or was upset because they didn’t already know what problems needed to be fixed or what the solutions might be? But the biggest message I took from the call was that they recognized my needs would be different from the other parents’, they wanted me to experience the ease of inclusion, and they knew it was important to ask the question: What can we do to make you feel at home here?

The truth is, many of us with disabilities aren’t just another parent in the room, [person on the plane](#), or [citizen trying to evacuate a fire](#). Do we have the luxury of being seen with dimension when so many people still don’t even know what ableism means? When [interabled couples](#) are still looked at with skepticism, when we’re still fighting for inclusion in [schools](#), [housing](#), and [workplaces](#), when physicians across the country [still perceive disability as a direct diminishment to quality of life](#)? When 67 people die in a plane crash and the President of the United States baselessly suggests the tragedy is a result of the [FAA’s willingness to hire disabled employees](#)? I have a microphone, a platform, that so many people don’t have. Am I squandering the power of my voice when I speak about anything else?

I tell my podcast co-host I’m worried I’m not bringing enough disability into our conversations. I trip over my words trying to explain the competing feelings – the desire to talk freely about all kinds of things, the fears about blurring the edges of a brand that has brought good things to me and those who’ve followed along, and the very real weight of this greater responsibility to represent a group of people. Again and again, Caitlin asks, “Why do you have

to choose?” Why must it be a conversation with one big, bold spotlight on disability or a conversation that ignores disability? Why isn’t there space for an organic unfurling, a messy tangle of threads that overlap and deviate? Where does this mandate come from?

When my parents moved our family to Kansas City in the middle of the school year, I showed up to a new second-grade class in my hot-pink wheelchair and sat next to my mom at the front of the room. “It’s a miracle that Rebekah is alive,” she explained, filling in the details of my childhood cancer and subsequent paralysis. “But now she has to do things a little bit differently than other kids.” The students stared, looking back and forth between my mom and me. I bowed my chin, peering up every few moments. “She just wants to be treated like everyone else,” she concluded emphatically. “Now, does anyone have any questions?” The hands shot up. It’s only 30 years later, considering how I want to show up to my son’s classroom, that I notice the irony of insisting that one person “wants to be treated like everyone else” when that person is the only one with a designated time for Q&A.

As an adult, I’ve learned approaches to educating folks on disability that are more informed and reflective, connecting my personal experience to a larger history and social patterns. Still, I learned my job early. My body inspired a response in those who saw me – fear, heartbreak, confusion, dismissal, curiosity – and I was there to help them understand, answer their questions, shift their thinking, make them feel better, insist again and again that I was a human just like them. There was no need to grapple with what I wanted to bring to the world; it felt clear what the world wanted from me. Learning to read those cues wasn’t just a neutral process. When you live in a disabled body, your care, your survival often depends on your ability to know what the people in the room – doctors, teachers, caregivers, peers – want from you. *How can I ensure you’ll actually listen to me? Stick around? Advocate on my*

behalf? By the time I was 9 or 10, I started giving talks to auditoriums and sanctuaries full of people, providing them with a narrative of disability that could smooth out the wrinkles in their furrowed brows.

What happens when that body intersects with social media? Algorithms, likes and shares, podcast analytics, downloads per episode? With this kind of data, the mandate is made even more precise. Explain, educate, alleviate, illuminate, and crush my experience into little gems of wisdom I can throw out like candy over an audience. There is a voice in my head who represents the career coach or a best-practices-for-personal-branding article shouting from the sidelines. *You're losing your audience! Focus your content! Stick to your expertise, your unique POV! Stay consistent and cohesive!* Five-step plans for building brands are pulled together from clear, observable patterns. Audiences are more likely to gather when you follow these rules and more likely to drift when your content veers too far from what they've come to expect. I'm certain there are a host of algorithmic reasons that drive this outcome, but I'm most interested in what the pattern does to our brains as we sort out how to represent ourselves online.

Read More: [*Judy Heumann Insisted Disabled People Like Me Belong*](#)

As I grapple with how to hold my identities – in my son's school, online, within myself – I watch the landscape shift in front of me. It's not a new shift, but it gains speed in a matter of months, then weeks, then days. I hear about another university, another business, then the federal government cutting DEIA programs. I learn about [*Texas v Becerra*](#), a lawsuit filed by 17 states that seeks to make Section 504 of the Rehabilitation Act unconstitutional. This law has protected disabled people in schools, workplaces, hospitals, and out in their communities for over 50 years. I'm under no illusion that all DEIA programs or 504 accommodations are executed perfectly. Meaningful reassessment and revision are always important to

better reach the goals we set out to accomplish, but the swift toppling of these programs is not about getting better at creating a more inclusive world. The goal is to end the project.

I understand the longing for a world where humans aren't organized into tidy identity boxes. I'm grappling with it in my own tiny universe. There are ways we are the same, and also it's vital we understand the ways we experience life differently. I'm weary of a world that decides my brand for me – sees my body and expects explanations, solutions, one kind of story about one kind of thing – and also we can't belong in a world where our inclusion is up for debate. It can feel almost impossible to embody both of these realities at once. We trade one for the other, erasure or spotlight – "I don't see you as disabled" or "I follow you to learn more about disability."

No one is standing over me, ordering me to choose, but brands demand focus, politics demand action, and yes, I've found, kids demand answers. The river moves in one direction. But where does that current take us? What parts of us get lost when our lives, stories, and selves are shaped only in reaction to the world outside of us? What stories remain untold? What happens to subtle stories? Unresolved stories? Surprising stories? Stories that hold no teaching moments or call to action but are no less real? What remains unimagined? As I look at my son and his little friends, sucking up the great wide world at alarming speed, I keep wondering about the end goal. When do we get to stop insisting that we're whole humans and just get to *be* whole humans? How do we build that world while we're still living in this one?

Read More: [*My Pandemic Baby Is Pulling Us Out of Our Cozy Cave. But How Will the World See a Disabled Mother Like Me?*](#)

There is a little whim, a flickering spark in me that sizzles toward silliness and frivolity, wishing to blur the edges of a fixed brand and play freely in the wide open spaces of discovery. Following

this impulse can feel self-indulgent to me, but I'm starting to notice something else. Unlike the never-ending work of looking out and reacting – to misconceptions, questions, injustices – the flickering whim comes from within me. No one is asking me to pay attention to it. There is no guaranteed audience if I do. But perhaps that is the power of it. Surely there is something revolutionary about a disabled woman learning the skill of listening to and protecting the glow that exists only deep in her gut.

In the end, I visited my son's class as a reading buddy, which meant I was one parent among many popping in for an afternoon to read with kids one-on-one or in small groups. I brought a bunch of our favorite books and let the kids choose the one they wanted to read with me. Some of them included depictions of disability, most did not. One kid picked Caroline Cupp's and Jessica Slice's new book *This Is How We Play*, and we got to chat about learning to play checkers with their parents and building forts in our house. Two kids asked why I use a wheelchair. I answered briefly: "This is how I move through the world – how do you move through the world?" The conversations quickly turned to the cars and scooters and bikes they use to get around.

To be honest, this afternoon didn't flip any sort of switch for an entirely new dynamic. It's still not unusual for kids to ask me about my wheelchair. But showing up in this way gave me an image I keep coming back to. As we read together, one girl leaned in close, her side against my wheel, her elbow on my tire, a comfort and intimacy with a wheelchair that mirrored my own son's. One wheelchair present, included, and integral within a larger scene unfolding in a larger context. One disabled parent figuring out how to set her own terms at a school invested in building a meaningfully inclusive community.

And maybe this is a glimpse at the long-term goal I dream of – disability as a living part of a greater whole. Neither hidden in the

shadows nor forced into the spotlight, but integrated into a community, accepted as one valuable part of our shared humanity. I don't know if that world is possible, but I'm looking for windows of space – in a classroom, a podcast conversation, my own creative interiority – to just be, to just exist as fully, absurdly human, disabled and everything else. This is not a project to minimize disability or ignore the reality of this world at this time, but a sideways route to play with resetting the terms – an embodied storytelling that practices the showing alongside the telling. Because I think I need new strategies for the days ahead. It's feeling too easy to assume that all of the teaching and naming and advocating may all be for naught. Could following the whim be part of the deep collective work of imagining a different world? I'm trying to believe it could be just around the corner.

<https://time.com/7225536>

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The Scientific Search for Youth

Park is a senior health correspondent at TIME. She covers the COVID-19 pandemic, new drug developments in cancer and Alzheimer's disease, mental health, HIV, CRISPR, and advances in gene therapy, among other issues in health and science. She also covers the Olympics and co-chaired TIME's inaugural TIME 100 Health Summit in 2019. Her work has won awards from the New York Press Club and recognition from the Deadline Club. In addition, she is the author of *[The Stem Cell Hope: How Stem Cell Medicine Can Change Our Lives](#)*. Follow her on Instagram at [@aliceparktime](#).



Later this year, a handful of people with a rare eye condition will receive a novel injection that is designed to quite literally turn back time.

Nonarteritic anterior ischemic optic neuropathy—known as NAION—can cause sudden blindness when blood flow to the optic nerve is blocked. It's not clear what causes the condition, although diabetes, high blood pressure, and smoking are known to be risk factors. Some early evidence also suggests GLP-1-based weight-loss drugs such as Wegovy, Ozempic, Mounjaro, and Zepbound might also make patients twice as prone to the condition compared with those not taking the medications. Whatever its cause, there are no treatments for NAION. And if it strikes one eye, there is a good chance it will also affect the other, leading to complete blindness.

Scientists hope to change that with what is potentially much more than an eye treatment. The injection will test a new gene therapy that, instead of targeting specific genetic mutations that cause NAION, attempts to return certain optic-nerve cells to their pre-NAION state. It would be the equivalent of pressing a biological rewind button that takes the affected cells back to a younger condition—one in which they haven't yet been struck by NAION or any other disease.

To some scientists, this sounds wildly ambitious. To others, extremely unlikely. Either way, it is just the kind of big—and controversial—swing that is emblematic of the growing field of science devoted to untangling and reversing what is a central fact of life: aging.

The particular therapy behind the NAION treatment is based on the work of David Sinclair, a professor of genetics at Harvard Medical School and director of the Paul F. Glenn Center for Biology of Aging Research. He has spent decades trying to understand the wear-and-tear processes that age our cells and is convinced that many conditions that plague us—from joint issues to metabolic

processes that break down as we get older—could be avoided and even reversed.

Read More: *Your Personality Could Add Years of Healthy Living*

“The real stroke of brilliance is the notion that you make the cell younger, and then it would be more resilient to injury,” says Dr. Joseph Rizzo, professor of ophthalmology at Harvard Medical School and Mass Eye and Ear, who is leading the study. “To me, that was the winning concept.”

Rizzo’s team will give the treatment to three volunteers, all of whom have NAION in one eye. Each will receive an injection of three genes designed to reprogram the targeted optic-nerve cells.

If successful, the treatment could potentially be used for more common age-related eye conditions like glaucoma—and even other chronic diseases like dementia, arthritis, and heart disease. And it is only one of a growing suite of potential treatments designed to address aging, as scientists race to reverse time at a cellular level.

Some, including Dr. Valter Longo at the University of Southern California, support the idea of periodic fasting regimens to stress cells into a more resilient, younger state, while others, like Dr. James Kirkland from Cedars-Sinai Medical Center, are developing drugs to remove older cells that refuse to die but damage healthy cells around them, contributing to age-related conditions.

Their ultimate goal? To uncover something that has long fascinated humanity: the key to defeating—or at least slowing—old age.

Even if it works, the NAION study would only be a first step on the road to fulfilling that fantasy. The genetic and molecular science making the trial possible has advanced by leaps in recent decades—but it remains a good way off from delivering a pill or injections

to erase the damage we inflict on our bodies by just living. Stress, exposure to pollution, drinking, and hours on the couch—there's no easy way to undo it all. But that's not hindering the search for a quick fix. Everywhere you look there is evidence of a voracious interest in clearing away the layers of daily life and somehow rediscovering the elusive fountain of youth—whether by popping anti-aging supplements touted on social media (even David Beckham sells one) or adopting some of the often extreme treatments depicted in billionaire [Bryan Johnson's](#) Netflix documentary, *Don't Die*.

This public frenzy has unlocked a flood of investment from venture capitalists—funding for longevity startups is up by 75% over the past year, according to CB Insights—and pharmaceutical companies. The opportunity for them, if they can create new drugs or pioneer techniques to slow or reverse aging, is potentially colossal. “Every single person on the planet is aging,” says Dr. Mehmood Khan, CEO of the aging philanthropy Hevolution, which is based in Saudi Arabia (one of the largest funders of aging research in the world). “This affects every organism. It’s personal.”

But longevity scientists working today temper this enthusiasm with a sobering reality. Their focus is not on immortality, or even adding a few more years to people’s lives. It’s ensuring that they spend those final years in as healthy a condition as possible.

They are in the business of increasing health span, not lifespan. “We are not focused on trying to work on longevity,” says Kirkland, director of the Center for Advanced Gerotherapeutics at Cedars-Sinai. But it could be a welcome side effect. “Hopefully we live to 100 or something like that, completely functional, and just not wake up one morning.” The goal is to extend the number of years (however many they may end up being) during which people can live independently, actively, and without being encumbered by serious disease.

That's not just a matter of semantics; improving health span would have substantial economic and societal benefits. Researchers estimate that increasing health span by just one year in the U.S. would lead to a \$38 trillion boost in the economy due to increased productivity from a larger, more vital workforce and savings in health care costs in treating age-related diseases. Reframing longevity in these terms is catalyzing a renewed interest in researching aging.

“Everybody recognizes that at this point of increasing prosperity and increasing life expectancy all around the world, the burden of caring for older adults suffering from chronic diseases has emerged as one of the most pressing global challenges of our times,” says Dr. Shalender Bhasin, professor of medicine at Harvard University and director of the Claude D. Pepper Older Americans Independence Center at Brigham and Women’s Hospital.

By 2030, the cost of chronic diseases like diabetes and heart disease, measured in lost productivity and health care expenditures, is expected to reach \$47 trillion worldwide. “We have an historic opportunity and imperative for governments, companies, academic, and regulatory agencies to work together to modify the life trajectory,” he says. “Extending health span will be even more important than extending lifespan.”

For decades, antiaging strategies have largely been confined to the beauty and supplement industries, where the promises were grand but the evidence scarce. Science took longer to wade into the field, held back by the assumption that aging was inevitable. It wasn’t until the 1930s, when scientists first demonstrated that rats that ate drastically less tended to live longer, that scientific efforts to crack the aging conundrum attracted more scientists’ attention. But dramatically cutting calories isn’t practical for most people. So researchers shifted instead to restoring specific organs or tissues—

but those efforts weren't guided by a deep understanding of how cells and tissues age.

Advances in genetics and molecular biology, including critical discoveries about stem cells and how they develop to become different cells in the body, began deconstructing the black box that had cloaked aging for so long. There are currently dozens of studies testing whether certain compounds can slow down the many cellular signs of aging, like the DNA damage and oxidative stress you collect from too much time in the sun or exposure to pollution or toxic chemicals in the environment. Damage is also caused by tobacco and poor diets, not exercising, and diseases like obesity and Type 2 diabetes. Some of the studies are exploring how the diabetes drug metformin, for example, might help slow down (and therefore preserve) the metabolic system. Researchers are also exploring ways in which the microbes that live in our guts and skin contribute to the balance between health and disease, and whether specific types of so-called microbiomes are more or less linked to health span.

Kirkland focuses on yet another area: senescent cells, or cells that have stopped dividing and are on their way to dying, and the destructive signals they send as they expire. He's developing drugs called senolytics that target these signals, which could minimize some of the damage that we all recognize as aging. Senescence is one of the fundamental processes of aging, Kirkland says, and each of these "can impact literally hundreds of conditions."

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Positive results from such studies could potentially lead to medicines that may help chip away at the time people spend in poor health. No such products have emerged yet, but promising results from animal studies suggest that it may be possible for certain tissues and organs.

Sinclair, for one, believes that there is a more unified, efficient way to confront aging. The NAION trial is among the first to test his idea that aging is the end product of years of assaults on our genes brought on simply by living, as well as certain lifestyle habits. The net effect on our genes—which scientists call epigenetics, or the way genes are turned on or off within particular cells—is what is aging our cells, he thinks, so to address it, we should start treating aging like a disease. With that approach, he believes we can figure out how to erase the epigenetic changes that build up over time, and give our cells their youth back.

“Time does not go away,” says Sinclair. “We’ll still age.” But the challenge is to control the rate at which that happens as much as possible, so older age starts to look drastically different than it does today—without the extreme frailty, loss of muscle and bone strength, and deterioration of mental and metabolic processes that currently contribute to chronic conditions.

Sinclair caused a stir in 2023 when he [claimed to have reprogrammed old cells in mice](#) that he had epigenetically aged, and found that their muscle and kidney cells were acting young again. (Not everyone in the scientific community agreed that he had effectively aged, then rejuvenated, the mice.) He used a technique for which the Japanese stem-cell scientist Shinya Yamanaka had won a Nobel Prize. Yamanaka discovered a set of four genes that could, when delivered by an inactivated virus using gene therapy, revert adult cells to their embryonic forms, so that they could theoretically develop into any of the body’s hundreds of different cells. Before being treated with three of these genes, the mice in which Sinclair accelerated aging were grayer, frailer, and suffering from a number of age-related diseases, compared with normal mice. Once the aged mice received the reprogramming therapy, however, the genes in their muscle and kidney cells began working like those in young mice.

“We saw reversal of gene-expression patterns back to a more youthful state,” Sinclair says. He used the same process to reverse age-related blindness in mice as well. Currently, his lab is testing a chemical cocktail that mimics the gene therapy but doesn’t require injections. It’s still early, but so far, older mice fed the cocktail for four weeks have less frailty and younger-looking coats.

The way he explains it, as mice age (and humans, he believes), the “information” that cells accumulate over time starts to become biological noise. It’s similar to being among the first to arrive at a cocktail party—it’s relatively quiet, you can see who’s there, and probably eavesdrop on a conversation or two. As more people join, the noise level rises, and the sum of everyone’s conversations becomes a cacophony. Similarly, as cells age, their epigenetic blueprint bears the legacy of what they’ve endured. Those effects don’t necessarily alter their genome, but they do change the way genes are activated and suppressed, and how well cells can repair themselves. Sinclair theorizes that cells accumulate these changes over time, and the burden of these alterations ultimately causes them to falter or function abnormally—a sign of aging.

Sinclair calls it the “information theory of aging” and is dedicating the remainder of his career to proving it. But he and his research have their critics, who question whether Sinclair truly rejuvenated the cells since he didn’t show the animals’ muscles or organs actually functioned like younger versions even if their gene activity was changed, without signs of aging. Not to mention the obvious question: What does any of this mean for people?

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Part of the controversy centers on the fact that the aging field is still trying to establish the standards by which it defines and ultimately measures success. “Where we are right now is that we’ve got three or four leading classes of interventions that people think may be worth exploring in larger human studies,” says Bhasin. They

include senolytics, as well as metabolic drugs like metformin and compounds that boost nicotinamide adenine dinucleotide (NAD), a molecule critical to how cells use energy. But “there is very vigorous debate over what will be the primary end point for the clinical trials of these candidate drugs, and how we define the success or efficacy of the drug.”

Ideally, Bhasin says, what researchers should measure aren’t changes in a specific health metric, such as blood sugar or blood pressure, but a broader range of chronic disease incidence that better captures the overall ability of older people to thrive. “If we can show that the onset of these age-related diseases, which is a quantifiable indicator, or their incidence, is reduced, then that would be very strong evidence of health-span extension,” he says. But such studies would be expensive and require long periods of follow-up, which have hindered the field.

Sinclair, however, remains convinced that his approach does slow aging, and stands by the metrics he used. “Two hundred thousand people die each day from age-related diseases, and I’m not going to wait 15 years,” he says.

Sinclair has long been a lightning rod of controversy in the field because of that defiance—among other things. Depending on whom you ask in the scientific community, he is either a pioneering scientist pushing the limits of our understanding of aging, or a snake-oil salesman. He has a tendency to make grandiose claims about what science can do to slow aging. (The title of his best-selling 2019 book is *Lifespan: Why We Age—and Why We Don’t Have To.*) He recently resigned from a professional group of aging researchers that he had helped to create after tension arose when he was quoted in a press release claiming that a company he had created had reversed aging in dogs. (Sinclair blames the sloppily written press release and has reworded the statement.) “I probably agree with 80% of what David says about the importance of the

field and what it could be, and with the excitement and enthusiasm about the future and discoveries being made,” says Matt Kaeberlein, co-director of the University of Washington Nathan Shock Center of Excellence in the Basic Biology of Aging. “But in my personal opinion, he often gets ahead of his skis and sometimes says things that are not true.”

It doesn’t help that Sinclair is also a serial entrepreneur, which some believe creates a conflict of interest between pursuing commercial interests and objective scientific principles. None of the companies he has helped to create, based largely on work from his lab, has led to a commercial product to slow aging, and some have shuttered before conducting critical studies. That includes his first venture, which GSK bought in 2008, to develop his finding that the red-wine compound resveratrol helped yeast and worms live longer. GSK dropped the project, but Sinclair stands by his findings. What others see as failures, he describes as perhaps before their time.

He and others are now focused on studying the effects of NAD, a jack-of-all-metabolic-trades enzyme involved in determining how well the cell functions.

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“You could call them the crown jewels of metabolism,” says Charles Brenner, professor of diabetes and cancer metabolism at City of Hope, of the NAD co-enzymes. “But while the crown jewels of any country in Europe are inside a safe inside of a vault inside of a castle patrolled by armed guards, the crown jewels of our metabolism are exposed to the elements of metabolic stress. When we go outside, get a sunburn, or live life in an oxygenated environment, we generate DNA damage and reactive oxygen species that attack the NAD system.”

The more the NAD system is perturbed, the less able it is to perform its critical functions in regulating a cell's energy, among other things. Some scientists, including Sinclair, believe that boosting the body's stores with a NAD supplement is a promising way to slow aging. And Sinclair has created a company, Metro International Biotech, that is manufacturing a precursor molecule that the body turns into NAD; human testing began in March. "Every-one who's been dosed is doing fine so far," he says.

Brenner—one of Sinclair's critics—takes NR (nicotinamide riboside), a precursor that the body turns into NAD, that he discovered in 2004. But he says it's not because he thinks it will help him live longer or age more slowly. "I don't make any extravagant claim that NR is a longevity drug," he says. "The idea of NAD boosting, in my opinion, is to essentially equip people to have higher resiliency in the face of conditions like metabolic stress."

Brenner believes it's nearly impossible to truly do a trial that tests NAD boosting's role in extending life, since too many factors contribute to aging, lifespan, and health span. "There is no way to do that trial, and people who think they can, using biomarkers, are probably fooling themselves," he says.

That's not stopping researchers from trying. Bhasin is currently recruiting healthy, fit people to test NMN, another precursor that the body converts to NAD, with a version made by Metro International Biotech. Everyone will be put under physical stress with an intensive exercise regimen and randomly assigned to take the pills or a placebo. They'll then undergo physical and psychological tests: running on a treadmill, having their respiratory function and muscle tone checked, and having their cognitive skills evaluated. The study will shed light on how boosting NAD affects people under physical stress, which is one of the factors that can indirectly contribute to cell aging.

More research—and replication of results—is needed before any of this will help us all live to 100. But “we are now living in an era where we have the tools to accelerate [the] pace of research,” says Khan. “There is a recognition that with early intervention, we can change the trajectory of health span.”

<https://time.com/7266835>

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Seth Rogen's Hollywood Satire The Studio Is the First Great New Show of 2025

Berman is the TV critic at TIME. Along with reviewing current television, she writes about the ways in which entertainment and pop culture intersect with our larger social and political realities. Her TIME essay on [Ted Lasso and modern masculinity](#) won a New York Press Club award in 2022.



“If it was up to me,” an idealistic Hollywood executive played by [Seth Rogen](#) assures his assistant in the series premiere of *The Studio*, “we’d be focusing on making the next *Rosemary’s Baby* or *Annie Hall* or, you know, some great film that wasn’t directed by a f-ckin’ pervert.” Then, suddenly, it is up to him. Upon arriving at the offices of his employer, the fictional Continental Studios, Rogen’s Matt Remick learns his boss has just been fired. The studio’s mercurial CEO ([Bryan Cranston](#)) offers him the job—but only if he agrees to make a Kool-Aid movie. Matt doesn’t hesitate before replying in the wall-smashing affirmative: “Oh! Yeah!”

Ten minutes into the Apple TV+ comedy, just about everything we need to know about the new head of Continental is apparent. Movies are Matt’s world. As we soon discover, he has no significant other, no kids, no real social life. His knowledge of

cinema, from action franchises and Oscar winners to obscure indies and the international art house, rivals that of any film geek. And, for the most part, he has good intentions; when he gets his promotion, he keeps a promise to make his assistant (Chase Sui Wonders' Quinn) a creative exec. Yet he's so desperate to succeed in an industry that is now, itself, desperate to succeed in the face of technological upheaval, labor unrest, audience fragmentation, and a post-pandemic slump in theater attendance, that he is in effect no better than any other spineless suit. Which is precisely how the filmmakers and actors Matt reveres see him. Worse still, he's insecure enough that this constant rejection sends him into a spiral of self-loathing buffoonery that gives *The Studio*, created by Rogen, Evan Goldberg, Peter Huyck, Alex Gregory, and Frida Perez, the rhythms of a *Curb Your Enthusiasm, Studio Head Edition*.

The Studio is a timely, funny, and exuberantly—though not uncritically—cinephilic panorama of a business caught in the latest battle of a war between art and commerce that has raged since studios like Warner Bros. were still run by their namesakes. It's also 2025's best new show to date, and one of Hollywood's sharpest self-portraits in ages—which is saying something, considering how much the entertainment industry loves to celebrate and satirize itself.



Auteurs dabbling in television love to frame their shows as six- or 10- or 13-hour films, as though there's something inherently superior about the cinematic form. But, as proudly as *The Studio* wears its love for movies—specifically the good, old-fashioned, non-IP-based ones—it is also unapologetic about being built for TV. Delightfully episodic, it throws Matt, his underlings, and the famous people who are always guest-starring, often as themselves, into a new debacle in each half-hour. There's a kinetic L.A. noir riff, in which the studio head, donning a trench coat and fedora, takes it upon himself to investigate the disappearance of a reel of the *Chinatown* rip-off [Olivia Wilde](#) is directing. Another episode, set at a work gala for the pediatric oncologist ([Rebecca Hall](#)) Matt is dating, finds him struggling to convince her physician colleagues that the scatological [Johnny Knoxville](#) zombie movie he's working on is just as important as their life-saving profession and features a particularly *Curb*-esque escalation of his insecure antics.

Matt makes a great antihero in part because he's the perfect foil for everyone around him. His creative compromises can be devastating to the ambitious Quinn, who has yet to become fully jaded. His sleazy work buddy Sal ([Ike Barinholtz](#)) couldn't care less about art but is, to Matt's eternal consternation, beloved by the talent because he's fun and chill. The cynical, trend-chasing marketing executive Maya ([Kathryn Hahn](#), playing refreshingly against type) makes Matt look principled by contrast. Some combination of his guilt and his craving for the approval of a maternal figure drives him to offer a lucrative producing deal to his embittered predecessor and mentor, Patty ([Catherine O'Hara](#), hilarious as ever but not onscreen as much as you'd hope the second-billed cast member would be). Matt may be a selfish, cowardly fool, but his sincere love of film makes it impossible to root against him—especially when the alternative is letting Sal or Maya fill Continental's slate with a whole Powdered Drink Mix Cinematic Universe.



Indeed, the barrel-scraping KoolAid project—which Matt stupidly tries to reshape into a self-aware, *Barbie*-style masterpiece by buying a [Martin Scorsese](#) script about Jonestown’s Kool-Aid-drinking suicide cult—is not the only thing the studio has in development. Rogen and his co-creators round out the season with an Indiewood period drama, directed by [Sarah Polley](#) and starring [Greta Lee](#), that Matt can’t stop himself from messing with during an unwanted set visit that puts the entire crew on edge. The executives laugh, cry, and rejoice as they screen a crime drama written and directed by [Ron Howard](#), only to nod off during an incongruous, mind-numbing coda that brings the run time to nearly three hours. The problem is, Howard has final cut, and no one at Continental has the guts to confront him about his terrible ending.

For all its madcap humor, one serious question *The Studio* raises—a question relevant not just to Hollywood, but also to media, publishing, the music industry, and other creative fields—is: Can the time-honored “one for them, one for me” approach, often associated with Scorsese and [Steven Soderbergh](#), which uses popcorn fare to fund artistically fulfilling projects, still work amid the economic pressures of the 2020s? Or must the Matt Remicks of the world keep greenlighting another and another and another one for them, while delaying the “me” script that’s supposed to justify such schlock until a more financially favorable moment that might never come? Who is this philistine “them,” anyway, if not the executive who, instead of defending Scorsese’s vision, placates his

boss with a slapped-together promo clip of an animated Kool-Aid Man doing a TikTok dance? To put it in terms Matt might understand: The call is coming from inside the office.



The Studio draws on film knowledge as encyclopedic as Matt's own, shouting out film-school staples like the 1964 propaganda masterpiece *I Am Cuba* while sending up such current phenomena as [Christopher Nolan](#)'s outsize influence and the [horror franchise](#) *Smile*. Yet what makes the show feel so contemporary is its understanding that Hollywood isn't just in decline; it has now fallen so far that the industry has become nostalgic for the human-scale action spectacles and contrived Oscar bait (Howard's *A Beautiful Mind*, for example) it was making at the turn of the millennium, amid an earlier wave of nostalgia for the revolutionary New Hollywood of the '70s. In that respect, its most important reference point is [Robert Altman](#)'s beloved 1992 film *The Player*.

Another profile of a dangerously stressed studio executive, *The Player* takes the form of a satirical thriller. Tim Robbins stars as Griffin Mill, a linen-clad striver driven mad by his one-sided rivalry with a new colleague and a series of threatening notes apparently sent by a jilted screenwriter. By the end of the movie, Griffin has gotten away with murder—and his descent into violence has been rewarded with a promotion to, yes, studio head. Listen carefully in *The Studio*'s premiere, and you'll notice that Cranston's gonzo CEO character is also named Griffin Mill.

Whether he's meant to be literally the same person as *The Player*'s protagonist or just a callback to the movie isn't clear. (Cranston dresses and acts more like the notoriously debauched '60s and '70s Paramount head Robert Evans.) Either way, it's a choice that implies the previous generation's monsters failed upward to become the brain-dead, pandering bottom-line obsessives of today. That Kool-Aid TikTok dance? Mill can't get enough of it.



As bleak as its perspective on movie-making circa 2025 can be, *The Studio* is never a bummer. Its rapid-fire wit, Rogen's exquisitely neurotic lead performance, and the verisimilitude of plots driven by insider-y podcasts and sales pitches at conventions for theater owners, along with all those endearingly self-effacing celebrity cameos (another echo of *The Player*), certainly keep things interesting. Most compellingly, the show balances frustration with affection in a way that few recent Hollywood self-portraits have done. Period dramas, from [Damien Chazelle](#)'s chaotic *Babylon* to [Quentin Tarantino](#)'s wistful *Once Upon a Time . . . in Hollywood*, play like eulogies for a medium that's already dead. Contemporary satires like HBO's already-canceled, low-hanging-fruit 2024 Marvel spoof *The Franchise* paint a likeness so empty and unflattering, you might come out convinced that there's nothing of value left in American cinema to salvage.

The Studio knows that the war for the future of movies is worth fighting, even if the generals are weak and the conditions on the

ground miserable. “I got into all this because, you know, I love movies. But now I have this fear that my job is to ruin them,” Matt confesses to Patty in the premiere. It’s true, she concedes: His new job is a “meat grinder.” And yet, “when it all comes together and you make a *good* movie, it’s good forever.”

<https://time.com/7264756>

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The 25 Best Stand-Up Specials on Netflix



Netflix has been producing and distributing original stand-up specials for well over a decade, with no indication that they are slowing down. In 2024 alone, the streaming service released more than 40 original specials, six of which are included on this list. As of February, Netflix seems to be on a similar pace for 2025, with five new specials airing since the start of the year.

But a healthy comedy diet requires one to look beyond the new. For the best laughs, peer into the past to discover some specials for the first time, or revisit old favorites to discern their staying power. The great stuff never goes out of style.

From seasoned pros like Chris Rock, Ali Wong, and Adam Sandler, to relative newcomers like Nicole Byer, Dusty Slay, and Jacqueline Novak, here are the 25 best stand-up specials to watch on Netflix right now.

Sam Jay 3 in the Morning (2020)

Great specials often belie the craft at the root of their creation. Some comics are so adept at making us feel as though we are in a private, casual conversation with them, that it is easy to overlook the careful structure of their material and the mastery with which it is delivered. Such is the case with Sam Jay in *3 in the Morning*. The throughline of the special is Sam's relationship with her girlfriend, a line on which she is able to thread jokes about running into men she used to sleep with, fights while traveling, and not wanting to have children. All of this is delivered like the frustrated musings of a friend. But Jay deviates from the personal to offer her thoughts on a range of topics: Carrying her girlfriend's bag? "I have no chivalry in me." #MeToo allegations against Aziz Ansari? "We gotta teach girls to fight." Greta Thunberg? "Annoying." Everything is fair game for Sam Jay. To watch this special is to see the debut of one of the best comics working today.

Bill Burr *Paper Tiger* (2019)

In *Paper Tiger*, Bill Burr describes his marriage as such: "We're always working on me." But the sentiment could also be used to describe the relationship between Burr and his comedy, and by extension we in his audience. Over the years, the comic has emerged as one of the most self-reflective of his generation, commenting on his race and gender, and the privilege they provide. *Paper Tiger* begins with the comic launching into a tirade against political correctness, sounding like the average (albeit much funnier) white dude comic. But then Burr flips the script, and begins to deconstruct his own anger, his own inability to communicate and deal with his emotions. He remains, to this day, a dude just trying to figure it all out. It's in this special where one sees that process truly begin to flourish.

Adam Sandler *Love You* (2024)

Few comedians feel so singular. It's not just that Adam Sandler wears what he wants, sings when he wants, and performs where he wants (including in this special). It's his unrelenting sincerity in a time where pessimism is king. With guitar in hand, Sandler sings and does baby talk in the way that audiences have come to expect from his work. Yet in this special, he pairs the act with reflections on his own age and life's work. He ends the *Love You* with a beautiful tribute to the history of the comedy, naming, citing, singing his appreciation for the dozens of comics who have shaped him and us. And we all get to feel sincerely grateful, together.

Hannibal Buress *Comedy Camisado* (2016)

Comedy Camisado came after the routine that launched a thousand ships. It was in 2014 that Hannibal Buress went [viral for a routine included in his stand-up act](#) about sexual assault allegations made against Bill Cosby. Buress addresses the fallout here, along with the unexpected fame it brought him. “Who knew that an off-hand joke about Cosby raping would lead to me having amazing consensual sex across the country?” Buress says, to enthusiastic applause from the live audience. But the special is about a whole lot more, with Buress showing himself to be a wonderful plate-spinner, seamlessly jumping from one disparate topic to the next, from gambling and LASIK surgery, to child actors and deviled actors. There is no subject from which Buress cannot draw out a laugh.

Chris Rock *Tamborine* (2018)

“The American justice system should be just like Walmart,” Chris Rock says in *Tamborine*. “If you can find a lighter sentence, we’ll match it!” So much of Rock’s masterful special has to do with fairness. This ranges from the structural racism of the criminal justice system, to the unfair ways that parents try to protect their children from the harshness of the world: “We need bullies!” It is

classic Rock, bringing to the stage his own internal logic — “George Bush is a Black revolutionary.” — and somehow assembling all together in a completely sensical way. The special is at its best when Rock gets personal talking about his then-recent divorce. He admits to cheating and discusses the fear he felt while in child court. It’s a moving, hilarious piece of work by a stand-up master.

Hannah Gadsby *Nanette* (2017)

Hannah Gadsby’s special feels as real, raw, and fresh as ever. The special, [rightly celebrated at the time of its release](#), features Gadsby’s reflections on art, both their own and the art world writ large. In the special, Gadsby gives a master class in the tonal shift, going from goofy to deeply serious, all while keeping their audience fully captivated. Among the special’s finest moments is when Gadsby considers an exit from comedy, or, rather, closing the chapter on an era of comedy that foregrounded self-deprecation over healing. *Nanette* came at the height of the #MeToo movement and immediately following the first election of Donald Trump, but its themes contain a degree of universality that make the special just as essential a watch now as eight years ago.

Trevor Noah *Where Was I* (2023)

[Trevor Noah](#) released *Where Was I* the year after he vacated the host chair of *The Daily Show*. In the special, he comes back to prove why he helmed one of the most venerated news program in America, providing the ultimate outsider-insider commentary on American life; a man who had lived close enough to see the country for all it is, but retained his distance just enough to see that to which so many are blind. He comments on America’s complete abdication of history, the country’s obsession with bathrooms, and the even more intense obsession over the national anthem. “Only country in the world where you’re allowed to sing the anthem

however you want,” he says, before going into a long bit about live performance and elaborate renditions of the anthem, including giving one himself. “Why are you trying to make the anthem sexy? What are you doing? I never understand that.”

Lucas Brothers *On Drugs* (2017)

Brothers Keith and Kenny Lucas begin *On Drugs* by declaring war on Richard Nixon, who, in 1971, declared a war on drugs, leading to the incarceration of millions, disproportionately impacting Black Americans, including members of the identical twins’ own family. Flanked by cardboard cutouts of the 37th U.S. President bowling, the brothers discuss much more than their hatred of the man, including dropping out of law school, pro sports, and credit cards. Beyond their commentary, delivered in a deadpan style, the special is one of the finest examples of a duo working in perfect tandem, never missing a beat. Take for example, when the Lucas brothers (who never identify themselves by first name) share a story about smoking weed at work and facing “twin discrimination.” “One time the boss caught us and he fired us. And the weird thing is he fired us at the same time for the same exact reason,” one Lucas brother says. “And you don’t want to get fired like that,” the other Lucas brother replies. “Because not only are you getting fired, but it’s kind of like you’re watching yourself get fired in 3-D.”

Ronny Chieng *Love to Hate It* (2024)

Many will know Ronny Chieng best from his work behind the desk and in the field at *The Daily Show*. In that job, he is most often seated, or standing still. In *Love to Hate It*, Chieng gets to show off his physical comedy chops, like when he impersonates Baby Boomers or recounts running home and back to the hospital in order to complete his end of the embryo freezing process. He pairs this commanding stage work with the insightful societal commentary that has made him one of the faux news program’s

standouts. Among his best bits is a riff on how the internet algorithm so easily manipulates men looking for guidance, taking them from workout videos to storming the capitol faster than the click of a mouse. “That’s why fucking Mark Zuckerberg is trying to MMA fight Elon Musk right now,” he says. “Even the good guys in this room, we’re on a razor’s edge to being a piece of shit, okay?”

Anthony Jeselnik Bones and All (2024)

No one delivers a punch-line like Anthony Jeselnik. His shocking twists and turns of the mind have made him one of the most beloved characters of stand-up in the last twenty years. In this special, Jeselnik does more of the same, while getting surprisingly sentimental, or, as sentimental as his persona can be. He starts by noting his two-decade anniversary in comedy, and ends with memories of working with his self-described hero, Norm MacDonald. While perhaps at first a bit jarring against his otherwise ruthless act, it pairs well with the sense of humanity that truly underpins all of Jeselnik’s work, especially the darkest bits of his gallows humor. “I’m against cancel culture,” he says in the special, to cheers. “Thank you. That’s my impression of a shit comic trying to get on Rogan.” To watch Jeselnik is to witness a nearly peerless craftsman, who understands that whatever lesser comics complain about today is, in fact, an excuse for their poor art. “What I am sick of are comedians complaining about cancel culture. It’s not that hard. Do your job,” he says. “Comedians are supposed to be unparalleled badasses. I know this because I have a fucking mirror.”

Marc Maron End Times Fun (2020)

Great comedy transcends time and place. This becomes eerily true while watching Marc Maron’s special, which was released on March 10, 2020. Need more be said? In the special, Maron comments on everything from society’s obsession with turmeric, to

the end times of Trump, and the cultish, religious vibes of Marvel superfans. “I think it should be noticed or recognized that both the story of Jesus and the Marvel Universe: created in Jewish writer rooms,” he says. Like much of Maron’s work, the special carries a healthy mix of pessimism and a pinch of hopeful optimism. He sees all the bad out there—and there’s a lot of it. But there is something so deeply human about Maron’s delivery and way of explaining, that it can’t help but inspire a little bit of hope: at least someone is processing all this stuff.

Patton Oswalt *Annihilation* (2017)

The last thirty minutes of Patton Oswalt’s *Annihilation* are among the most moving, funny, devastating you will find. That’s not to say the rest of the special is lacking—it begins with some jokes about Donald Trump’s first term that feel particularly poignant right now. But it is in this portion of the special that Oswalt discusses the unexpected death of his first wife, [crime writer Michelle McNamara](#), and the process of grieving with their young daughter. “I’m just killing time,” he says after bantering with members of the live audience. “This next section is very hard for me to get into.” Oswalt, a master storyteller, then gets into it, talking about everything from the worst day of his life, from actually having to tell his daughter the news, to the superheroes who have failed him in his grief. On Batman visiting the cemetery at night in comics he says: “Cemeteries close at 6:00. I know this. That’s bullshit. If they’re doing that, that means they climbed over the fence like an asshole.”

Ali Wong *Baby Cobra* (2016)

Time has only been a friend to *Baby Cobra*. With its release, [Ali Wong](#) became the first stand-up comic to record a special while pregnant. “You become like a vampire when you’re pregnant: your senses are so sensitive and your emotions are so heightened,”

Wong [said in an interview at the time](#). “That helps with performance because you really feel things.” The visceral physicality of Wong’s performance here, her first Netflix special, is singular, and her honest commentary on topics like sex, relationships, race, and, of course, pregnancy remain fresh and biting nearly a decade later. Since then, Wong has gone on to record three more specials for Netflix, *Hard Knock Wife* (2018), *Don Wong* (2022), and *Single Lady* (2024). All are worth checking out, but it is in this first one where Wong breaks out as a star, and it remains one of the best comedy specials of this century.

John Mulaney *The Comeback Kid* (2015)

Few tell a story as well as John Mulaney. And truthfully, one can’t go wrong with any of his specials. But in revisiting this first one, [*The Comeback Kid*](#), it remains a masterclass in personal narrative. Here, Mulaney feels like a surgeon, dissecting the memories of his life with comedic precision. No word or beat feels out of place. He flies across the stage with gusto, covering a range of topics on middle age, like becoming a homeowner and loving to use the phrase “my wife.” Mulaney is at his best, though, when he reflects on his childhood, including growing up Catholic, the progression of “childrens’ rights” today, and, best of all, the story with which he ends the special: meeting Bill Clinton at a fundraiser when he was ten-years-old, and his father’s decades-long, personal grudge for the former president.

Maria Bamford *Old Baby* (2017)

In *Old Baby*, Maria Bamford draws our attention to the very nature of the stand-up special itself. The conceptual work begins with Bamford in her home talking to herself, then performing for just her husband, only to then begin cutting in and out of spaces, including an outdoor restaurant, bowling alley, and red-curtained, then glimmering, velvet-curtained theater stage. The constant

remains Bamford and her act: the tone, the stream of consciousness delivery style, and the topical threads of the show, which includes topics like unconditional love, sex in a marriage, aging, and Hollywood ghosting. “Can’t happen in a small town,” Bamford says. “The person will just say, ‘I see you over there.’” It is in *Old Baby* that Bamford takes her roots in the alt-comedy scene to a new level, inviting us to understand that the throughline of the special is not place, audience, or even continuity editing, but the act itself, wherever it might take us, literally and figuratively.

Tig Notaro *Happy to Be Here* (2018)

With her [signature deadpan-style](#), Tig Notaro remains a unique voice in stand-up comedy. Among Notaro’s great gifts is her ability to somehow simultaneously draw the audience into her often deeply personal stories and command our attention, while in the same breath deviating to offer meta commentary on the actual show she is performing in that moment. In *Happy to Be Here*, for example, she often riffs on a joke she is about to tell or has just told. “Listen, laugh all you want. I’m not trying to be braggadocious,” Notaro says while talking about a temp job she once held. “I don’t know if that’s the best thing to say in a special, ‘Oh, yeah. Laugh all you want.’” Notaro deals with a range of topics in the special, from marriage and children, to her own celebrity. The show ends with a remarkable bit that becomes an exercise in seeing just how famous she is in the eyes of her audience. Notaro promises a mystery musical guest is waiting backstage, and plays out an extended joke about whether they are, in fact, behind the curtain.

Nicole Byer *BBW (Big Beautiful Weirdo)* (2021)

Ordering a single bottle of ranch for delivery, hookups on the road, and the turmoil of birthdays are just some of the myriad topics Nicole Byer covers in her hilarious debut stand-up special. “A

crying white woman with a birthday is literal kryptonite to common sense,” Byers jokes in *BBW*. “And I’ll tell you guys something: I enjoyed watching Krista cry.” Such is the great simultaneity of Byer’s special. She proves herself to be a keen observer of contemporary society, without ever placing herself above it, nor does she take on the role of judge. Instead, she is down in the muck with us, discussing personal moments, reenacting them with fantastically hilarious physical comedy, and offering her own way of just trying to make sense of the world post-2020, from COVID and the Black Lives Matter movement, to the ubiquity of online “Karen Gone Wild” videos. “Like, is your kid sitting on the couch, scrolling through Instagram being like, Mom?!” Byers asks. “You come in wearing the same shirt and they’re like, Did you come directly from the hate crime?!”

Hasan Minhaj *Off With His Head* (2024)

Off With His Head is not just a title. The special includes a series of jokes about *The New Yorker*, which, the year before, had published an [article fact-checking](#) some of the stories told by Hasan Minhaj in his previous comedic work. The article came with controversy, with many criticizing the comic, and others coming to the defense of both him and the artistic process. But the special is a whole lot more than that—in fact, Minhaj moves on quite quickly. He seems to indirectly respond to his critics by moving away from the epic storytelling style of his previous specials, instead showcasing his skills as a political and cultural observer, finding the absurdity of our current moment, no matter your persuasions. “Sometimes Biden fans get mad at me. But here’s my thing. Why are you a fan?” he asks. “Imagine walking through downtown San Jose and seeing some loser with a T-shirt. Just like, ‘Citibank!’ You see another guy, ‘No, fuck you, bro! Wells Fargo!’”

Taylor Tomlinson *Look at You* (2022)

For more than a year, [Taylor Tomlinson](#) has hosted *After Midnight*, the late night comedy game show occupying the hour on CBS immediately after Colbert. Followers of the show this season (its second) will know that one of the best parts of the show is Tomlinson's often too short monologue. But if you want more of Tomlinson's own musings on modern life, thankfully, the comic has released a trio of stand-up specials for Netflix. In *Look at You*, Tomlinson reflects on everything from a recent bipolar diagnosis, to the cost of therapy and losing her mother at a young age. "She's in heaven, I'm on Netflix, it all worked out," Tomlinson says. "That is a real thing I said in therapy, to which my therapist responded, 'You should come in twice this week.'"

Jacqueline Novak *Get On Your Knees* (2024)

Jokes about male genitalia are often the textbook example of a comedy cliche. In *Get On Your Knees*, tackles this challenge head on, proving that not all the jokes have been told—not even close. To quote Novak's special is a futile enterprise. Its greatness comes from its totality, from the way that Novak commands each inch of the stage as she analyzes the subject of oral sex for more than 90 minutes, offering stories of personal experience, anatomical analyses, and philosophical musings. "To me, the blow job, it was just a conquered thing," she says in the special. "It was an art form I had mastered in a basic way, I had a working definition of, and now I can think about how I might eventually wanna meaningfully subvert that art form." Such work is certainly achieved in this special.

Mike Birbiglia *The Old Man and the Pool* (2022)

Mike Birbiglia's *The Old Man and the Pool* began as a Broadway show, one that translates seamlessly into the format of a stand-up special, blurring the lines between the two forms in ways that mask just how hard it can be to make up for the distance wrought by the

camera. But here, [Birbiglia's raw humanity](#) reaches through, as he discusses aging, death, health, and learning to swim. He acts as a kind of planter, placing seeds of deeply personal information throughout his act, only to pivot, letting the weight of them grow until he is ready to return. Much of the special concerns Birbiglia's struggle to breathe in a variety of contexts: when a doctor asks him to blow in a tube, when learns he has Type 2 Diabetes, and when he takes swimming lessons in his "drowner's body" for the first time. The special is about the act of survival, of carrying on. All of this Birbiglia delivers with the perfect blend of the sincere and silly. "If you haven't seen a nutritionist, you're not missing too much. They know the same stuff as us," he says of trying to get healthy. "Imagine your most annoying friend, and then imagine they start charging you."

Dusty Slay *Workin Man* (2024)

Smoking. Drinking. Working as a stand-up. Dipping and driving. To Dusty Slay, all of that, in his words, is the best. Slay's act is, simply, charming. He feels like a throwback, performing with nothing more than a stool, a glass of water, and minimalistic set design, swaying all the while and occasionally gives the cheering crowd a small wave. He even has a catch-phrase, "We're having a good time." A beautiful sentiment for a catch phrase, one of most underappreciated verbal traditions in comedy. Like many of the comics on this list, Slay is a great storyteller, able to both keep the narrative engaging and make jokes about himself and the very act of telling. "I love dipping," he says. "I didn't dip Skoal. I dipped Kodiak Wintergreen, but not everybody knows that name brand, so I like to say Skoal 'cause it's got brand recognition."

Beth Stelling: *If You Didn't Want Me Then* (2023)

It's always fun when a comic goes home. In *If You Didn't Want Me Then*, Beth Stelling returns to Dayton, Ohio, to offer reflections on

the Wright Brothers, field hockey, splitting time as a child with her father in Orlando, and sneaking into frat parties as a teenager. “I feel like the only time men believe women is when we’re lying about being 18,” she says. “Frat dudes are like, what am I supposed to do? Check her ID? I’m like, Check... check her face. Is it underdeveloped and over-contoured? Does it look like she still believes in Santa?” Stelling’s set is a textbook trip down memory lane, which the comic then turns into reflections on her life now, all of which she delivers with a mix of biting material and raw honesty, precisely landing each punchline. “I might still want kids,” she says. “I just know I won’t have time to come home and let them out.”

Catherine Cohen *The Twist ...? She's Gorgeous* (2022)

“Look at me!” Catherine Cohen declares and sings at the outset of her special, in case the title was not clear enough. In *The Twist ...? She's Gorgeous*, Cohen (or her persona) bursts into wonderfully hilarious songs at a moment’s notice. She basks in the audience’s gaze and makes it known. Any personal story she shares contains a spin of self-congratulations. “My ex and I lived together for three years. And we actually kept living together two months after we broke up,” she says. “Which is, of course—say it with me—good for the environment. Oops, I just ran for office. Oops, I just won.” Cohen transitions between stand-up and song are seamless, with each feeding the overall structure and throughlines of the other. One could imagine each part expanded into a show of its own. But together, they make up an engaging, original special.

Natalie Palamides *Nate – A One Man Show* (2020)

Natalie Palamides’s show is unlike anything else on this list. Playing a male character named Nate and dressed in drag, Palamides offers a commentary on masculinity, engaging with the

audience to explore topics like consent and jealousy. Nate wrestles with an audience member after he spots him with his “ex-girlfriend.” He showers naked before the audience. Shouts out for his best friend until an audience member answers, only to then invite the “friend” on stage and ask to be spanked dry with a towel. He goes on a date with Miss Jackson, his art teacher (and a mannequin) to his own show, and then has a drunken, sexual encounter with her overlooking Niagara falls. It is a tense moment that further complicates the show’s broader exploration of consent. “Is what I did wrong?” he asks the audience, who give a range of quiet answers upon Nate’s insistence. The special does a fantastic job in capturing the general thrill and unease of the room, but most of us can only wonder what it must have been like to witness live such a brilliant, singular performance.

<https://time.com/7260458>

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Steven Soderbergh's Black Bag Is a Satisfying Little Morsel of a Spy Drama

Zacharek is the film critic at TIME. She is the recipient of a Newswomen's Club of New York award and was a 2015 Pulitzer Prize finalist.



Familiarity breeds contempt, maybe especially in marriages. How do you keep a close partnership fresh? Perhaps married spies, like the ones in [Steven Soderbergh's](#) silky spy caper *Black Bag*, have the answer.

George Woodhouse ([Michael Fassbender](#)), an experienced operative at Britain's National Cyber Security Centre, receives a list of five colleagues who are suspected of being moles, capable of activating a cyberworm designed to wreak nuclear havoc. No problem there—except his wife, fellow high-level spy Kathryn St. Jean ([Cate Blanchett](#)), to whom he's devoted, is on the list. The trust between these two is unshakable; George isn't too worried. His first move is to invite the other four suspects to the couple's house for dinner, the better to ferret out the traitor. "Avoid the chana masala," he casually informs his preternaturally self-possessed wife as she slips into a column of liquid charmeuse

before the guests arrive. He's dosed that particular dish with truth serum, the better to get tongues flapping around the dinner table.



The potential traitors—played by Tom Burke, Naomie Harris, Regé-Jean Page, and Marisa Abela—also happen to be two sets of couples. Because, as one of them laments, who else can a spy really date? But if the party, a chic gathering around a low-lit table in the couple's *Architectural Digest*-ready London abode, yields some juicy cyberspy gossip—this is a crowd who will tell you what they really think of Edward Snowden—it doesn't tell George much about what his wife might be up to. The two talk about their work at home, but only up to a point. Any question too delicate to answer is met with a two-word code intended, politely, to get the other to back off: "Black Bag." And that's the response George gets when he asks Kathryn about some troubling evidence he finds, post-party, while emptying the trash. (This is a spy-spouse who not only does all the cooking, but also all the tidying up.) Meanwhile, Kathryn purrs an invitation from the bedroom. George may be wild about her, but his trust in her is shaken.

Read more: [Steven Soderbergh on Sex, Stripping, and Consent in Magic Mike's Last Dance](#)

The great thing about the way [Soderbergh makes movies](#)—generally swiftly, and for [relatively few pennies](#)—is that he seems to have a great deal of fun doing it. The result is that his pictures don't feel fussy or over-serious. That's *Black Bag* in a satin-gold nutshell. The script is by David Koepp (writer of the best *Mission: Impossible*, the 1996 Brian De Palma iteration), and it's filled with

shimmery red herrings and liberal lashings of phony-baloney techno-spy stuff. (One agent compliments the work of another with buttery superlatives: “It’s a very sexy piece of code.”) The picture is sultry and understated, almost like a Sade song in movie form, though in some ways that’s a liability. *Black Bag* is over before you feel you’ve really gotten a hold of it; maybe it’s more of an amuse-bouche rather than a whole meal.

But then, would you rather have a well-crafted little morsel served up on a perfect porcelain square, or a heaping plateful of mashed nonsense that bores you before you’ve even finished it? *Black Bag* succeeds on its chilly wit, and on the cool, nervy appeal of its two stars. Blanchett strides through the movie with lioness grace; Fassbender makes George’s robotic use of logic seem like an aphrodisiac. Like all married couples, George and Kathryn have their things, those little daily annoyances, the occasional doubt about what the other may be thinking, or doing, in their private hours. But in the clinch, they’re a united front. What God hath joined let no man put asunder. That goes for pesky little cyberworms too.

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Exclusive: After an Unparalleled Career, WNBA Star Diana Taurasi Announces Her Retirement

Gregory is a senior sports correspondent at TIME. His work has been cited in the annual Best American Sports Writing anthology nine times. His stories have won awards from the U.S. Basketball Writers Association and the American Academy of Orthopaedic Surgeons, and his work was named a finalist for Deadline Club and Mirror awards for excellence in magazine writing and reporting on media, respectively.



Diana Taurasi, the all-time leading scorer in WNBA history and a [six-time Olympic gold medalist](#), usually starts preparing for her upcoming season on January 1. She gives herself four months to work on all facets of her game before training camp with the Phoenix Mercury begins. This New Year's Day, however, hit different. "I just didn't have it in me," Taurasi, 42, tells TIME from her home in Phoenix. "That was pretty much when I knew it was time to walk away."

In an exclusive conversation with TIME, Taurasi reveals publicly for the first time that she's retiring from basketball. "Mentally and

physically, I'm just full," says Taurasi, who played all 20 of her WNBA seasons for the Mercury. "That's probably the best way I can describe it. I'm full and I'm happy."

Taurasi leaves the WNBA with a strong claim to the title of women's-basketball GOAT. "I have a resume," says Taurasi. "It's not up to me to grade it." Besides her record number of points (10,646 in the regular season, nearly 3,000 clear of the runner-up, Tina Charles), Taurasi hit more three-pointers than anyone in WNBA history and is fourth all-time in assists. She won a trio of WNBA championships (in 2007, 2009, and 2014), three in the NCAA, six Euroleague titles during her 12-year overseas career in Russia and Turkey, and the six Olympic golds, an all-time record for a basketball player. She was the 2009 WNBA MVP, a two-time WNBA Finals MVP, a three-time Euroleague MVP, and a three-time Russian League Player of the Year. "Until someone comes along and eclipses what she's done, then yes, she is" the GOAT, says Geno Auriemma, who coached Taurasi in college and at the Olympics in 2012 and 2016.



"My scoring record, or the six gold medals, someone's going to come around that has the same hunger, the same addiction to basketball, and put those records in a different way, a different

name,” says Taurasi. “That’s what sports is all about. That’s going to be fun to watch. Hopefully not soon.”

She leaves a [WNBA](#) on stronger ground than when she entered. Her excellence played a key role in the league’s survival and success. “You can’t tell the story of the WNBA without Diana,” says NBA commissioner Adam Silver. “She helped build the league into what it is today and inspired generations of fans and players, including many who have gone on to play in the WNBA. Diana had an outsized role in the growth of women’s basketball.”

During Taurasi’s peak years on the court, you couldn’t keep your eyes off her. She played the game with a confidence and fluidity that appeared unmatched in the women’s game. Every time she touched the ball, you expected her to make something happen: perhaps a no-look pass over a smaller guard whom the 6-ft. Taurasi towered over, or a spin move around a taller player who couldn’t keep up with her, or a three-pointer going to her left, to her right, off the dribble, standing still. “It’s just the full package,” says [Sue Bird](#), the WNBA’s all-time assists leader and Taurasi’s teammate in college, on five [Olympic teams](#), and for seven seasons in Russia. “You add on some swag to that, some sh-t talking to that—the more you piss her off, the better she plays, people are entertained by that.”

“Just seeing her transcend the game, watching little girls want to play like her, her style, her flair, her bravado, you know, her swagger, it’s been an unbelievable treat,” says the [NBA’s all-time leading scorer, LeBron James](#). “She’s one of the all-time greatest, and she will leave her mark on the game of basketball the moment she ties those shoes up and throws them over the pole line. It’s been an honor. All love.”

Taurasi carried a cool quotient that the WNBA needed in its formative years. “Dee is the one that did have street cred,” says Bird. “You walk around airports, you’re in different cities, you’re

over here, there, people knew Dee everywhere you go.” Bird has her biases in the whole GOAT discussion, but when she makes her best effort to disassociate her close relationship with Taurasi in the debate, she still lands on her friend. “There are players that have full games,” says Bird. “You can talk about [Maya Moore](#) in this conversation, [Candace Parker](#), Lisa Leslie. You could talk about all these great names. The difference is the way she makes her teammates feel. The way she raises the level of her teams. That, to me, is the separator.”

Taurasi's boisterous personality was clear from her earliest days, growing up in Los Angeles and in Chino, Calif., where she moved when she was 8. The daughter of immigrants—her mother Liliana is from Argentina, and her father Mario was born in Italy and raised in Argentina—Taurasi hung up bullhorns in her house that her parents brought back from their home country. She used the open end as an indoor hoop. “I don’t know how many times my mom was like, ‘Go outside, stop bouncing the ball,’” she says.



“As a little kid, being a kid of immigrants coming to this country, basketball always made me feel a part of something,” says Taurasi. “It always made me feel comfortable. It brought me to a place

where, you know, I could love others. I could love myself. It really is, to me, the one thing that always loved me back.”

Her parents sacrificed for her pursuit of basketball, once skipping out on the light bill when she was in eighth grade to buy her a new pair of Nikes she so badly wanted. College hoops power UConn offered Taurasi, who starred for Chino’s Don Lugo High School, where she graduated in 2000, a scholarship. Before Taurasi’s recruiting visit, the UConn coaching staff gave players a scouting report. “The message that came through was, ‘This kid likes to have fun,’” says Bird, who is two years older than Taurasi and won a pair of championships as UConn’s point guard. “So make sure she has a good time. Wink wink.” Bird found Taurasi charismatic, and someone you felt like was already part of the team. The players took her to Huskies, a UConn bar.

“She was a baby, but we got her in and she was in the middle of the dance floor doing all kinds of West Coast dance moves,” says Bird. “She had some sort of, like, robot situation happening.”

Auriemma pushed Taurasi, and the two stubborn competitors could clash. Taurasi was loath to draw offensive fouls, so in one practice, Auriemma told Taurasi to stand in the lane: he ordered each player to dribble down from half-court and run into her, and for Taurasi to take the hit and fall to the floor and take a proper charge. “I didn’t fall once,” says Taurasi. “I was like, ‘Nah, I’m good.’” Auriemma tossed her out of practice.

She told Auriemma she wanted to wear No. 0 at UConn. Auriemma objected; he didn’t like the negative implications of that number attached to a player of Taurasi’s caliber. “She goes, ‘OK, I’ll wear double zero,’” says Auriemma. “So that’s what we’re dealing with.”

He called her a double dumbass for the wisecrack and pushed her to wear No. 3., because Auriemma believed she could be the Babe

Ruth of women's basketball. She wore that number throughout her college and pro careers, and delivered three straight national titles to UConn, from 2002 through 2004, while also winning back-to-back Naismith College Player of the Year awards and Final Four Most Outstanding Player honors.



"I wish I had \$1 for every time I heard a guy say, 'She's the only reason I would ever watch a women's basketball game,'" says Auriemma. "And this was 25 years ago, right? Obviously, we've evolved as men. But she had the ability to bring people to the game that otherwise would not think about watching a women's basketball game." And many of them stuck with it, giving some new thunderbolt—like, say, a [Caitlin Clark](#)—a solid base to expand.

"If I had an opportunity to play basketball and compete, that's what I was doing," says Taurasi. "At the end of the day, the work and being able to compete, those are the things that I love the most out of anything. Those are the only things that resonate with me. Even now when I watch sports, 'Are you competitive? Are you willing to do the work? Are you willing to evolve?' Those are all the things that the game of basketball gave me."

The Mercury selected Taurasi with the top overall pick in the 2004 WNBA draft. She more than met the sky-high expectations

for her pro career. That same year, she also began her storied Olympic odyssey, helping the U.S. win gold in Athens by providing punch off the bench. “She rolls up to the first game, we get ready, we’re putting our stuff on to go warm up, and she brought two left shoes,” says Bird, who shared a Team USA backcourt with Taurasi in Athens, Beijing (‘08), London (‘12), Rio (‘16), and Tokyo (‘21). The team was staying on a cruise ship, the *Queen Mary 2*.

“Somebody had to haul ass back to the boat and get her other shoes so she could play,” says Bird. “Just like, dumb sh-t. She did that a lot.”

Taurasi won a lot too: she’s 42-0 in Olympic basketball games. “She can’t wait for the big game,” says Bird. “Can’t wait for the big moment. When you look next to you and see someone giving off that vibe, that aura, for a lot of people, it calms them. Because you’re like, ‘Oh, she’s going to play great.’”

At the Beijing Olympics in 2008, Taurasi spotted her hero, Argentine soccer icon [Diego Maradona](#), in the stands at a men’s basketball game and asked Silver, then the NBA’s deputy commissioner, if he could help arrange an introduction. Someone escorted her to Maradona’s seat at halftime. “I think Diana was probably a little nervous,” says Silver. “But she would never let you know it, just like she never shied away from a big moment on the court.” She gave Maradona two kisses and a hug, told her she loved him, and snapped a photo with him. “That was the only person I’ve ever asked to get a picture with,” she says.

During the 2016 Rio Olympics, the women’s and men’s U.S. basketball teams again stayed on a cruise ship. Players from both teams, a group of NBA and WNBA stars, were sitting around one night, having a few laughs, a few drinks, and talking some serious smack, as is the habit of super competitive and successful athletes. Draymond Green, a noted NBA rabble-rouser known more for his defensive instincts, physicality, passing skills, and penchant for drawing technical fouls and suspensions than his shooting and

scoring ability, was going on about something. Taurasi said, “Hey, Draymond, how does it feel to be the only person in this room who’s never been double-teamed?”



James and Taurasi spent time together at four Olympics, starting in Athens in 2004, the first for both of them. They've become good friends. "She's just super-duper, down-to-earth, supercool, super witty, talks her sh-t too," says James. "It's always fun being around her. She keeps you on your toes. She's just a super competitor. No matter men or women, she's one of the fiercest competitors that I've ever spent time with. She's a champion. She's a warrior."

Taurasi also won three World Cups, in 2010, 2014 and 2018. In the 2010 World Cup final in the Czech Republic, the U.S. faced the home team in the gold-medal game, and the Americans couldn't quite shake off the Czechs. At one point Auriemma, the national coach for that tournament, ordered the team to switch from man-to-man into a 2-3 zone. A Czech player hit a shot from the corner. "We inbound the ball, we go down there, Diana stops like 32 feet from the basket and drains a three," says Auriemma. "She turns around, runs all the way across the court to go past our bench, to look me in the face, in front of the entire Olympic team, and go, 'Get the f-ck out of this zone.'"

Auriemma started screaming “man, man.” The U.S. won by 20. “And the rest of the guys on the team, the look on their faces,” says Auriemma. “I had to go, ‘Yo, guys, don’t get any ideas.’”

Taurasi calls herself a “kind asshole,” a descriptor Bird insists fits. “In certain scenarios, especially on the court, that’s really where it comes out,” says Bird. “She can be an asshole. She can poke fun at people and this and that.” She’ll also often make sure that there are no hard feelings afterward. “The kindness, it oozes,” says Bird. “You go to dinner and it’s a big group, guaranteed she’s gonna pay the check. There are just these ways in which she’s incredibly generous and kind.”

When Taurasi first went to play in Russia, she noticed right away that people there didn’t smile much. “Once you’re in with them, you’re in for life,” says Bird. “But they can give you a little cold shoulder at first.” Taurasi announced a goal—make a Russian smile every day. She’d give people nicknames or say silly stuff. “Spasibo,” pronounced “spa-see-ba,” means “thank you” in Russian. Taurasi would say “spa-see-ba deeba.”

“Deeba is not a word,” says Bird. But Taurasi would “spa-see-ba deeba” to her teammates, the workers in the grocery store they shopped in almost every day, anyone she could. And they’d laugh. Mission accomplished. “It’s so stupid,” says Bird.



Taurasi relished her time in Russia. These days, WNBA players have been afforded opportunities to make more money in the offseason, so they're less likely to have to leave home to play professionally in far-flung places like Russia, Turkey, and China. For example, [Unrivaled](#), the new 3-on-3 league launched by [New York Liberty's](#) Breanna Stewart and the Minnesota Lynx's Napheesa Collier, whose inaugural season began in January, offers an average salary of \$222,222. (The WNBA average salary clocked in at \$119,590 last season.) "If you asked the 22-year-old me, 'Would you rather play in Moscow or Miami?' I think I would have picked Miami," says Taurasi. "But you asked the 42-year-old me, and those 12 years I spent overseas, especially the 10 I spent in Russia, I learned lessons that you can't learn anywhere else. It made me know I can live anywhere in the world with anyone, get along with any type of person, whether there was a language barrier, a mindset barrier, a political barrier, you name it, you had to make it work. I'm really grateful I got to do that." (This, of course, was before the [arrest and incarceration of WNBA star Brittney Griner](#), with whom Taurasi played on both the Mercury and Russia's UMMC Ekaterinburg—not to mention the last three Olympic teams—and the current political situation in Russia.)

Taurasi even sat out the 2015 WNBA season, at the request of her Russian team, to rest. The team was paying her some \$1.5 million;

she was making \$107,000, the league maximum at the time, in the WNBA. (The WNBA maximum was \$241,984 in 2024.) “Russia was the place where I really dug in and changed where my career was going,” she says. “Not only did I want to be the best player in the world, I wanted to be the highest-paid player in the world. You can only do that in a free market. And that’s what overseas gives us.”

She’d sometimes, however, forget to bring her jersey to games. “One time I wasn’t playing in the game, I had to f-cking go back to her apartment to get it,” says Bird. “You’re like, What happened to your brain?”

Taurasi had no use for a victory tour—you know, the thing where athletes go into a season announcing it will be their last and are honored and showered with gifts at their final games in arenas or stadiums. “I felt like 20 years of opposing arenas was enough,” says Taurasi. “All I need is another pair of sneakers.”



So what’s next? “That’s the question that I still don’t have an answer for,” says Taurasi. “I really enjoy taking my kids to school, being home when they’re home, not leaving for a week at a time.”

Taurasi and her wife Penny Taylor, a former teammate with the Mercury who played internationally for Australia and is member of the international basketball federation (FIBA) Hall of Fame, have two children, Leo, who turns 7 on March 1, and Isla, 3. Leo has started playing hoops. Penny coaches his team. “I’m the disgruntled assistant mom coach,” says Taurasi.

She says she just needs a “sabbatical.” But when I point out that people return to their jobs after one of those, she clarifies. She’s not going to pull a [Tom Brady](#). “I’m definitely retired,” Taurasi says. The game and all its fans will miss her. And vice versa. “I’m going to miss the competition,” says Taurasi. “I’m going to miss trying to get better every single offseason. I’m going to miss the bus rides, shootarounds. I’m going to miss the inside jokes. I’m going to miss the locker room, the things that come with being on a basketball team. All those things, I’ll deeply miss.”

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