

ALSO BY BEN EHRENREICH

NONFICTION

The Way to the Spring: Life and Death in Palestine

FICTION

Ether

The Suitors

DOES MY NOTEBOOKS

A ROAD MAP FOR
THE END OF TIME

Ben Ehrenreich

COUNTERPOINT
Berkeley, California

Of an evening the owls come out.

—ARTHUR BERNARD COOK

In the third week of November, one year and six days after the election of the Rhino, I went for a walk with two friends. It was late afternoon. The light was soft, the shadows long. We parked the car on a dirt road about a mile from my house, shimmied under the wire that marked the boundary of Joshua Tree National Park, and walked up through a wide sand wash that I had hiked many times before. As it ascended, the wash would become a canyon: walls of lumpy, reddish stone would rise to the east and west, narrowing as the canyon climbed south into the park. We were following in reverse the path the rain had carved over the centuries as it trickled and sometimes raged down from the rocky hills into the flat, sandy basin below.

Not far from there, in late July, a young couple had gone missing. They were kids from the suburbs, but even if you know the desert it isn't hard to lose your bearings. Canyons fork and twist. The landscape plays tricks on the eyes. The light shifts and familiar

terrain becomes suddenly alien. The summer had been a mild one, but most days it was still above 105. Search parties and helicopters scoured the area for weeks. The missing couple came up in every conversation I had in town: Maybe coyotes had already scattered their bones, or they had been abducted by some sinister stranger. Perhaps they had simply wanted to disappear.

In mid-October, searchers found them a couple of miles from my house, and maybe a mile from the wash in which my friends and I were hiking. The young woman's father led the group that found them. The corpses, the newspapers did not neglect to report, were intertwined, embracing even in death. A few days later the authorities revealed that they had found a pistol at the scene: the young man had shot the young woman before turning the gun on himself. Police didn't believe there was any malice in it. The pair appeared to have gotten lost and, having run out of food and water, chose to avoid a slower death. The fact that they had brought a handgun on a day hike was apparently so normal that few of the news reports considered it worth highlighting.

But the summer had passed, the monsoons had poured down in September, and though no rain had fallen since, the senna and brittlebush were still in bloom, smearing the sides of the wash a brilliant yellow. I don't remember what we were talking about—maybe Steve Bannon or the lost hikers or Roy Moore banned from the mall, or the elusive scent of the desert willows that thickened the floor of the wash—when K., walking ahead of A. and me, stopped. She pronounced a single word: "Owls."

They took to the air in a sudden rustling burst, and then went silent. I barely glimpsed the first one: a flash of wide, white wings as it glided by above us, too big a thing to be so quiet. It soared off in a broad arc and disappeared behind a hill to the west. The second one, though, passed low enough that for an instant I could see its

flat, rawny face, the mottled white and brown plumage of its belly, those bright, alien eyes. It circled once and flew out of sight to the east.

Eventually we breathed. With all their circling and swooping, K. thought maybe there had been three of them, but I was fairly sure there were just two. We kept walking, the wash narrowing as we went until we had to scramble over boulders to proceed. We turned a bend. The owls were there, perched on a rock. They saw us first and flew off up the canyon. Again they separated, one arcing right, the other left. We thought that was it and picked up the conversation again. I know at some point we talked about Lebanon and Saudi Arabia, Saad Hariri's strange flight to Riyadh, Jared Kushner's visit the week before. All of that had filled me with a panic that lasted for days, the contours of the next global conflict revealing themselves, requiring only the smallest flame. Who would play the role of the archduke this time? Who would kill him? K. stopped again. The owls had roosted in the rocks ahead of us, as if they were waiting for us there. They flew off and again we watched in silence.

So it went. We scrambled on, following the canyon as it twisted left or right, expecting to see the owls at every bend. Every hundred yards or so we caught up with them and everything we had been saying felt suddenly impertinent, and we fell silent until they flew off and then walked on until we caught up with them again. We talked more quietly now, still surveying the crises of the day, pausing to admire a paper-bag bush in unlikely late-autumn bloom or a particularly bold and healthy cholla. And then the owls shut us up again. We saw them five times in all, maybe six, before they soared off into some more distant canyon and disappeared for good. I knew that we had been annoying them, that they were only trying to avoid us, and it's foolish, I know, but this is what humans do—we turn the world into a story and put ourselves at the center of the plot—and I found

it hard not to imagine, or to want to believe, that they had been leading us onward all along, that they were trying to tell us something, or to show us a path, one that led deeper into the wilderness, away from the highway, away from the car.

Before we said goodbye that night, in the parking lot of the town's one Indian restaurant, the conversation turned to writing. A. and K. are both writers. It was getting harder, we agreed, to muster faith in any of it, to care at all about lit-world battles that had once seemed so important. Or even, in the face of real, planetary disaster—glaciers melting, oceans rising, droughts and fires and famines and floods—to care about something we had once confidently called literature. No matter how pointless things may have felt at any given moment, A. said, you could always tell yourself that you were taking part in a conversation, an exchange that stretched back into the immeasurable past and on into a future that you couldn't yet imagine. That was the conceit. Not progress but continuity, at least. You could tell yourself that it was the conversation that mattered, this stream of voices flowing through the centuries, this ancient, almost sacred thing that is bigger and deeper than any of us alone. But what if it's going to end soon? What if someone in a generation, perhaps two, will write the very last word? What if the future does not include enough human beings to keep the conversation going? What if it drifts off like a party at the end of the night, with only a few drunks left mumbling in the corners? What if the humans who remain are too busy surviving to tend to the books and the servers? What if literacy has a horizon, and it's near? Isn't it all just noise then?

I should add that we were laughing, or smiling, at least. We were still high from the walk and it felt good to say these things aloud. The astounding vanity of it, I added, had never felt clearer, this hope that someone in a hundred years would hear you, that you might be able to give that person something, just like all the times you had been

lified and redeemed by the whispers of the dead rustling through the pages of books. How painful and absurd, this fantasy that your own labors might in turn be redeemed by strangers centuries and perhaps continents away who would need to hear what you had to whisper, this delusion that you were doing anything other than babbling because you like the sounds it makes, like a child blowing bubbles into milk. But without those strangers waiting for you, what is the point? Even if *The New York Times* loves you and everyone reads your books today and tomorrow and even next summer, what is any of it worth? Gossip squeaked between lemmings racing for the cliffs. Why bother to write when there will be no one left to read?

Really, I mean it when I say that we were smiling. We were talking about the end of time and the increasingly probable destruction of everything we knew and loved. We didn't relish any of it, but in the context of the walk we had just taken, time took a different shape. The desert enforces its own perspective. It shrinks you and puts eternity in the foreground. If you're open to it, and don't mind a diminished role in this drama, it insists, quietly, on the surging beauty of all things and non-things living and dead and not-formally-alive.

I felt an unfamiliar gladness, soft and pressing, bubbling up. I've thought about it many times in the months that have passed since then: the strange, buzzing joy I felt standing in that parking lot saying goodbye and then driving home alone. Even at the time it felt crazy, like I really was high, though I was entirely sober. It was as if I knew—though I couldn't have known—that I was stepping onto the path that these pages record, as if the joy of discovery preceded the exploration and I were grateful for a journey that I had not yet undertaken, that I didn't even know I was on. I wouldn't start writing until at least a week later, and when I did I had no idea it would become this book. I didn't intend to write a book at all, much less to

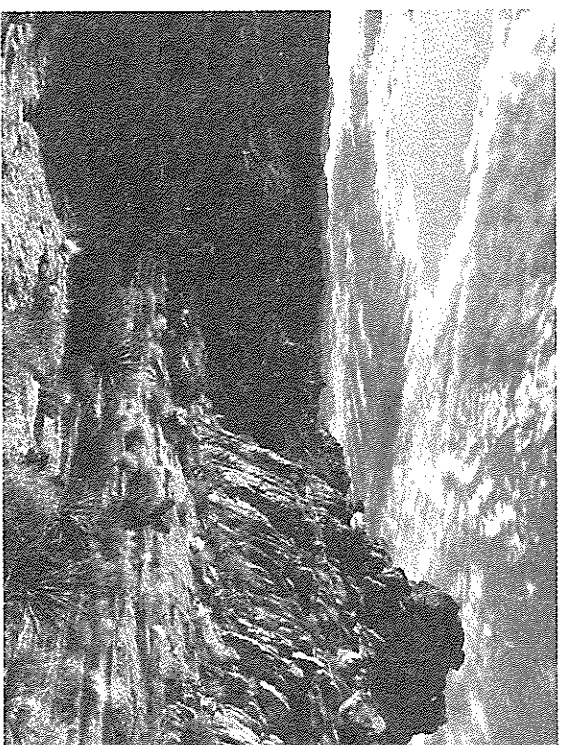
wage a battle against time, or at least against a certain conception of it, the one that still rules most of our lives and determines how we live them, how we conceive of what has passed before us and of the futures it might still be possible to build.

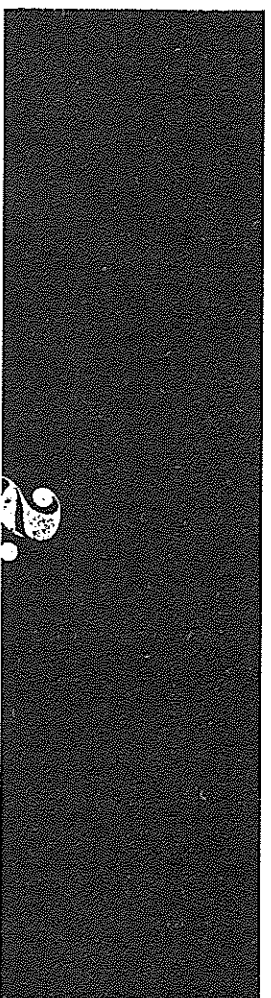
But that is what I did. That is where those owls would lead me. To fight against that notion of time, I would have to understand how it came to be shaped the way it is, and why we experience it as we do. I would have to ask what histories had to be erased and what new narratives invented for time to rule our lives this way. To figure out, if I could, how those omissions and accretions led us to precisely this perilous moment, in which everything, time included, appears to be on the verge of collapse.

When I did start writing, all I wanted was to remember the owls. I wanted to pin them down like any other memory, so that they wouldn't fade too quickly. One day, if it occurred to me, I wanted to be able to read back and remember what it had felt like: the uncanny beauty of their flight, those late-autumn flowers, the violet light of dusk. But they didn't let me. They wouldn't stop flying. They disappeared behind the rocks and kept reappearing again and again. Weeks after I had left them, they led me to the Maya realm of the dead—you'll see it soon enough—and from there to Hegel and Athena, and to the people who lived where I lived before I arrived there. I won't tell you the rest but I kept following them because I was trying to understand not just time but writing too, and I realized that time and writing are inseparable. Writing extends us in time. It tries to. So that things won't fade too quickly. And by writing I mean something more basic than what gets called literature: the act of inscribing, typing, scribbling, carving, or painting pictographs or glyphs or letters just like these, lines and arcs and loops that stand in for sounds and combine to form words capable of preserving thoughts, ideas, memories, impressions, histories, myths,

all the immaterial substance of a culture, its battles over its own past and its present, and its battles over time, and over what it will fight to become.

In any case, I couldn't have known, but there it is: somehow I knew, and I felt happy. Some part of me understood, and didn't know how to tell the rest of me. Sometimes time moves like that, not straight but sideways, backward even, and, like the owls, in silence, in broad and looping arcs.





Yesterday I came upon an article about something called “marine ice cliff instability.” The idea being that as ocean temperatures rise and icebergs break away from the glaciers that cover West Antarctica, they reveal higher and higher cliffs of ice. If the cliffs reach a certain height, the ice will no longer be able to support its own weight and will begin to crumble off in giant shards. Enormous, skyscraper-sized icicles will splash into the sea, each one rendering the cliff behind it taller and more unstable and prone to collapse. In other words, it could all go very suddenly.

“The destruction would be unstoppable,” the article pronounced. This could happen before the century ends. In the next twenty years even. It could mean that in our children’s lifetimes, if not our own, the oceans would very swiftly rise eleven feet or more, nearly four times as much as previously projected. Mumbai would be inundated. So would Hong Kong, Shanghai, New Orleans, Jakarta, Lagos, south Florida, and Bangladesh. New York and London would not fare well. Not millions but hundreds of millions of people would be displaced.

I read an article like this almost every week. I don’t look for them. They show up on my Twitter feed in the morning over coffee, with the day’s eruptions from the Rhino and funny alpaca GIFs and the latest

in police killings. From last week, November 15: climate scientists forecast that temperatures are likely to rise 3.4 degrees Celsius by the end of the century, more than twice the 1.5-degree target agreed to in Paris by every country in the world except the United States. From November 2: a new report—I have come to fear the words “a new report”—predicts climate change will push tens of millions of people from their homes in just the next decade, “creating the biggest refugee crisis the world has ever seen.” On October 30 there was another new report: global emissions of carbon dioxide, which had appeared to be tapering off, leaped in 2016 by more than 50 percent over the previous year, reaching a level not observed since the mid-Pliocene era, approximately three million years ago. Whatever happens, there is no reason to doubt that human civilization, and all life on the planet, will be radically reshaped. On October 13: French scientists announce that thousands of penguins have starved to death in Antarctica. In a colony of forty thousand Adélie penguins, only two chicks survived.

I finished my coffee. I took a shower, got dressed, and thought about those owls.

I remember, when I was a kid, staring at road maps, the kind you bought at gas stations and carried in the glove box, and that were, for me at least, impossible to properly refold. I remember looking at all those intersecting lines representing roads laid over and carved through the earth, dirt tracks and superhighways, the insolent grids of the cities. I wanted to follow them all to the end. I remember thinking that if you could get hold of all the maps for the entire country, or even the hemisphere, and spread them out side by side, it would be obvious that every road leads to every other road, that everything is connected. The dull suburban lane on which I lived would carry me eventually to rocky paths in Patagonia and the

rutted logging roads that cross Alaska. There were dead ends, of course, lots of them, but assuming you were free to backtrack, it was impossible, really, to get lost. You could follow any road in any direction and eventually, by however circuitous a path, get where you needed to go. Oceans notwithstanding.

I don't remember talking to anyone about this. As a child you learn to guard your thoughts, to hold close to ideas that seemed simple and self-evident and that you knew adults would scoff at. What counted as education seemed to mainly involve learning to walk in single file and otherwise keep quiet. School meant grown-ups telling you that things had to be done in a certain way, and in no other, that however many obvious and inviting paths might lead from one point to another, only one of them was right. The rest might as well not exist at all. To do well, to earn praise, you had to learn not to see them anymore.

I've had some time to think it over and I'm convinced I was correct. For decades we have been told that political maturity meant accepting that there were no alternatives to the world in which we lived, that no deviation was possible from the path that we were on. That economic growth was limitless and democracy would advance alongside it, and prosperity, equality, freedom, and endless high-tech toys. That to question this, to strive to imagine any radically different way of going about things, was a childish and even dangerous endeavor. That our society had evolved over the millennia via the straightest route available—the only one, at that—from a pitiable primitive infancy to the heights of rational civilized society, and that our only option was to continue to climb the same path. That was the story, and somewhere along the line most of us began to believe it. It helped us to forget that there were always other roads, other ways to see things, other stories, other routes. We didn't see, most of us, that the path we were on would lead us here, into this cul-de-sac. Now the asphalt is melting, and falling away beneath our feet.

We have no choice but to scramble to retrace our steps and to try, in a hurry now, to imagine things differently: other worlds, other ways of thinking, living, seeing. Other ways of writing, and of reading. By "we" here I mean nearly all of us, no matter where we started, or where we've ended up. This means telling other stories, and listening to them—perhaps especially to the ones discarded long ago, and to the ones told by people whose paths collided with that of the society in which we live and who did not make it through that encounter intact. It's not because anyone else was so much better or smarter that we should listen—though some of them may have been—but because they are not us, and we need all the help we can get to become something else.

There's not much time, but remember that all roads are connected. If we hurry, we could follow almost any route, really any road we want, so long as we pay enough attention along the way. If you saw a crow fly by the window as you were reading just now, you could follow it and see where you end up. If you saw a plastic bag blow past you on the wind, you could follow that too. But I live in the desert now, and I saw owls, so I will follow them.



As far as I can figure they were short-eared owls. The drawings in my copy of the *Sibley Field Guide to the Birds of Western North America* looked just like them. They had the same dark-rimmed eyes and dusky, mottled faces. The internet, however, suggests that no short-eared owls reside anywhere near Joshua Tree, California. But none of the owls that are supposed to be native to the area look like the ones we saw. So maybe they were migrating. Or they were some other kind of owl. Or I dreamed it all. Or the owls dreamed me.

Later A. told me that he saw them again in that same wash and that he was confident they were barn owls. Maybe so, but when they

first flew over our heads and we were standing, jaws at our navels, gawking, among the willows in that wash, he had mentioned another kind of owl. A. lived for a while in Guatemala and has read almost everything. His first thought that afternoon was of the *Popol Vuh*, the so-called “Council Book,” which records the creation tale of the K’iche’ Maya. “Remember the owls in the *Popol Vuh*?” he said, still grinning. “Messengers from the lords of the dead.”

I had skimmed it years before, or thought I had, but I didn’t remember any owls. Later I looked them up, and kept looking things up. I was curious, though that may be too polite a word for the hunger that I felt. I wanted to know where the owls would take me. I started with the *Popol Vuh*. I read it twice, in two translations, and I kept reading everything I could, following whatever paths opened themselves up to me. The *Popol Vuh* mentions four kinds of owls. Or better put, four owls. They served as messengers for the Lords of Xibalba, the Maya underworld. The Lords were a nasty bunch, devoted to the torment of humans. There were two whose work it was “to make men swell and make pus gush forth from their legs,” two who made men “waste away until they were nothing but skin and bone and they died,” two who caused men to suddenly begin vomiting blood until they died on the road as they walked.

Xibalba was not quite Hades or Hell, but an entire dimension of terror with its own detailed geography of punishment: awful mountains and rivers of blood; a house through which a cold wind blew, “where everybody shivered”; another filled with giant, murderous bats squeaking and screaming and flying frantically about; another teeming with knives that could dart through the air without a hand to hold them; a “house of gloom” in which there was only darkness. This was not metaphor. Xibalba was a real place, somewhere in the West. You could get there through a cave or a *cenote*, one of the underground springs that dot the Yucatán

Peninsula, or by following the “Black Road,” the dark cleft at the center of the Milky Way, all the way to the horizon.

But the owls. They make their first appearance in the *Popol Vuh* when the Lords of Xibalba become annoyed with two brothers named One-Hunahpu and Seven-Hunahpu, who, like many young men, did not like to do anything but throw dice and play ball. One day the brothers were playing ball on the road to Xibalba. They were making lots of noise. The Lords, furious at this show of disrespect, dispatched the owls with a message for them, at once a summons and an invitation: “They must come here to play ball with us so that they shall make us happy,” the Lords told the owls.

The brothers obeyed. What else could they do? The Lords of Xibalba amused themselves with a series of unpleasant tricks, like inviting the brothers to sit on a bench of burning-hot stone—they found this quite hilarious. Then they murdered them. Before they buried them, though, they took One-Hunahpu’s head and hung it from a tree that had until that day always been barren. Instantly the tree was heavy with fruit. The Lords of Xibalba issued an edict: no one should ever eat from the tree or even sit beneath it.

Such edicts are inevitably defied. Word got around. A young girl named Xquic, which means Blood Moon, heard about the miraculous tree. Imagining that its fruit must be impossibly sweet, she decided to seek it out, to taste it. They are rare, but there are people like Xquic everywhere, fortunately, people who defy the edicts of the powerful, whose curiosity rejects all constraints. When at last she found the tree, and stood beneath it, the skull of One-Hunahpu, which still hung from its branches, asked her what she wanted.

“These round things hanging from the branches are nothing but skulls,” it said. “You don’t really want those?”

“Yes,” she said. “I do.”

"Okay," said the skull. "Just hold out your hand."

When she reached out her hand, the skull dribbled spit into her palm, and Blood Moon became pregnant. With twins, of course.

This is an odd story, I know. Is it any odder, though, than the one about the god who loves us absolutely and out of incomprehensible divine love gives us not only his despised half-mortal son, whom we murder and reject, but a strange and mystical substance known as "free will," which condemns us, by and large, to reject our creator again and again and suffer unending sorrows? Or the one in which without realizing it humankind has been riding for the last few thousand years on a clunky sort of spaceship called *progress* that is taking us—some of us, anyway—to a better place, in which the miracle of reason yields universal happiness, comfort, and health?

Seeing that she was pregnant, Blood Moon's father complained to the Lords of Xibalba that his daughter had been disgraced. They instructed him to question her and, if she refused to answer honestly, to sacrifice her to them. So when Blood Moon protested to her father that she had never slept with anyone, he brought in the owls. Kill her, he ordered them, and bring her heart to the Lords of the Dead.

The owls carried Blood Moon off to Xibalba. As they flew, the girl was able to convince them that their orders were unjust. They would like to help, they told her, but what could they do? They had been ordered to take her heart to the Lords.

"But my heart does not belong to them," Blood Moon said. "Neither is your home here, nor must you let them force you to kill men." She was persuasive, and she was right, so the owls, at her urging, rebelled. They cut into the trunk of a tree with sap that ran as red as blood. They shaped the sap into a ball, which they pinched and formed until it resembled a heart. The owls brought this heart to the Lords of Xibalba, who were satisfied that it belonged to Blood Moon. Then they flew up out of the abyss, abandoning their

masters to join Blood Moon again. She would give birth to two boys, Hunahpu and Xbalanque, the trickster hero twins of Maya lore who, after many trials, would humiliate the Lords of Xibalba, avenge their father, and topple the dominion of the dead.

This is a long way of saying that sentences are not always final. Messengers do not always obey. Owls can be dispatched with one message and return with another. A single message, no matter how apparently unambiguous, can mean more than one thing. I'm counting on it.



I almost forgot the letter. I didn't see it on Twitter, or in the papers, or on the news. I only found it just now while googling to check the facts in the section about the ice cliffs. On November 13, more than fifteen thousand scientists signed a "Warning to Humanity" noting the rise in carbon emissions, the depletion of freshwater resources, the growing "dead zones" in the seas, the destruction of the forests, and the unleashing of a "mass extinction event . . . wherein many current life forms could be annihilated or at least committed to extinction by the end of this century."

The scientists urged political leaders to act and made some suggestions for the sort of sustainable management of the earth's resources that might save us if enacted in time. Given the urgency of their warning, their proposals felt quite modest, perhaps not entirely adequate to the task: "prioritizing" the establishment of vast reserves to restore forests and native plants, "rewilding" swathes of the planet, "promoting" a shift to a largely plant-based diet, reducing human fertility by ensuring access to birth control, "massively adopting" renewable energy sources while cutting back subsidies to the fossil fuel industry, "revising" the global economy in order "to reduce wealth inequality," etc. With one exception—"increasing

outdoor nature education for children, as well as the overall engagement of society in the appreciation of nature”—every single one of their suggestions was, in the pragmatic terms that politicians favor, inconceivable. Given budgetary restrictions on nonmilitary expenditures, even that latter prescription would be a hard sell.

Until the Rhino* upended everything, we had grown accustomed to politicians telling us that we must be practical and modest, that we should not expect too much. (Don't make noise on the road to Xibalba.) Barack Obama's favorite line: "The perfect is the enemy of the good." No matter that the good slipped off along the way and was replaced by the shifty a long time since, this was the mantra of ruling bureaucracies around the world for decades: that a rational politics can provide only incremental change; that any attempt to ask for more would be divisive and ultimately disastrous; that we should not fret because, to borrow Obama's other favorite line, which he borrowed from Martin Luther King, the arc of history bends toward justice. We could have faith in progress if no other god. Time has a shape and a direction. We might not be able to see the arc in its entirety, and we should not be so bold and foolish as to hurry it along, to demand justice, or much of anything, but we should know, and be comforted, that however it might seem, step by step, compromise by compromise, things are getting better.

So the dogma goes. Or so it went. But those compromises, that refusal to make any demands that might upset the system—and irritate the Lords who profit from it—led us to this precipice, and the cold

* I owe an apology, I realize, to that otherwise marvelous beast, the rhinoceros, which shares none of the president's malevolence, deceitfulness, and dizzying weakness of character, and does not deserve to be tarred by this analogy. But however noble it may be, the rhinoceros is not a delicate creature, and the Rhino, whatever he may intend, only ever wrecks things.

winds spiraling up from Xibalba. Decades of scrupulous and unrelenting pragmatism carried us here. The minimum necessary for survival now counts as madness. The courses of action still deemed practical will usher us straight down the path that leads to our own deaths.

The owls flew away. They didn't fly straight but swooped in long arcs, hidden by the dusk, suggesting new paths and retracing old ones all at once. Pragmatism reeks. I want out. A way out that is first of all a way in.



In the end, Hunahpu and Xbalanque overcame the Lords of Xibalba by repeatedly faking their own deaths. Or, better put, by actually dying and then coming back to life. They jumped into a bonfire, burned to death, had their bones ground to powder and scattered in a river. But they had it all planned out: at the bottom of the river "they changed back into handsome boys." After five days, disguised as magicians, they returned to Xibalba and worked many miracles for the pleasure of the Lords. They burned houses and made them whole again. They killed a man, cut out his heart in sacrifice, and brought him back to life. They killed each other, threw each other's hearts on the grass, and then returned to life. The Lords of Xibalba couldn't get enough. "Now do us!" they shouted. "Cut us into pieces, one by one!" And so they did.

Death is not always an end. The *Popol Vuh* may be one of the only texts in existence that records its own destruction. The version that has been passed down to us was translated and transcribed in the early 1700s by a Dominican monk named Francisco Ximénez, who recorded the text in twin columns, one in Spanish and the other in the language of the K'iche' Maya, rendered phonetically in Roman letters. The source the monk copied has never been found, but archaeologists believe it was likely an older manuscript

in phonetically rendered K'iche' that can be dated with some confidence to the mid-1500s. Among the clues that make that dating possible is the fact that the surviving text refers to the city of Santa Cruz, the name bestowed by the Spanish in 1539 to the former K'iche' capital of Uratlán, which had been leveled fifteen years earlier by the conquistador Pedro de Alvarado, the most trusted, the most charming, and the handsomest of Hernán Cortés's lieutenants.

Realizing after two profound defeats that they could not beat him on the battlefield, the two kings of the K'iche' had sent a messenger to Alvarado. They had invited him to Uratlán to discuss the terms of their surrender. Perhaps correctly, Alvarado feared a trap. He refused to leave the plains beneath the capital, which was as much a fortress as it was a city, high in the hills above a deep ravine, with stone walls and narrow streets. Instead he invited the kings to visit him. On March 7, 1524, they complied. Alvarado later testified: "As I knew they bore ill will to His Majesty, and for the tranquility and well-being of that land, I burned them and I ordered the city burned and razed to its foundations."

The manuscript from which Francisco Ximénez copied the *Popol Vuh* was likely transcribed in the years that immediately followed this holocaust, copied out hastily and hidden from the invaders. It was a task performed with the awful knowledge that nearly everything was lost. The book ends by mourning its own disappearance: "And such was the existence of the K'iche', which can no longer be seen anywhere, because the original book [the *Popol Vuh*], which the kings had in ancient times, has disappeared. So it is, then, that everything about the K'iche', which is now called Santa Cruz, has come to an end."



We are not the first people to believe we are living at the end of time. Far from it. The K'iche' understood that their world was ending. At

some point between the arrival of Europeans in the late 1400s and the close of the nineteenth century, so did most of the people who had been living in the Western Hemisphere. For the Aztecs and the K'iche' and the Inca and many others it came quickly, and cataclysmically. For the inhabitants of the Great Plains of North America and the desert Southwest, where I now live, Armageddon would be slower to catch up. That apocalypse is always with us: all the joy that I take from this land has been contingent on the destruction of someone else's world.

It is not always so violent. The Maya had experienced a previous collapse, in the ninth century, when the sophisticated lowland cities of their empire were precipitously abandoned without any aid from Spaniards, firearms, or smallpox. Drought, deforestation, soil degradation, and, perhaps, the arrogance of an unresponsive elite, were enough to do it that time. Which is to say, the same things that will likely do us in: the greed and blindness of the few, the hungers of the many, a fatal inattention to the fragile web of life on which our existence here depends. The first few meters of the surface of the planet are littered with the remains of dead civilizations, people for whom the world has ended and the circle of time has closed. Why should we be special? Bones, tissue, hair quickly become soil, but metal, stone, and baked clay can last a few thousand years, long enough to keep the archaeologists in grant money for a little while longer.

There have been plenty also who were too hasty to conclude that their world was ending, countless chiliastic sects and prophets proved premature by the failure of the rapure to arrive. Recall the Baptist preacher William Miller, whose calendrical calculations and close readings of the Book of Daniel led him to predict—and his many thousands of followers from New England to Australia to believe—that at some point between March 21, 1843, and the same date of the following year history would end, and Christ would

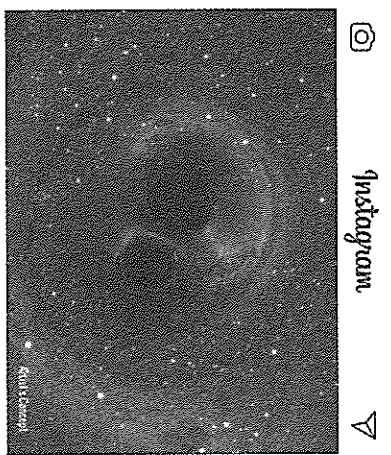
return. When that twenty-first of March passed without incident, he revised his calculations, nudging the date forward by one lunar month, to April 18. Still earthbound on the morning of the nineteenth, Miller realized that he had fudged the math again. Christ would come in autumn, he was positive this time, on October 22. But Christ did not come, not that fall and not any season since, and in the despair and disappointment that fell upon the thousands of the faithful, a world really did come to an end.

I, on the other hand, will be thrilled if I am wrong about everything. But then I don't think Christ is coming, or the Messiah or the Mahdi or the Martians. It's worse than that: no one can save us but ourselves.

Since I am writing here in part about writing, it is worth adding that Hunahpu and Xbalanque had two older half brothers, Hunbarz and Hunchouen, who were born before their ball-playing father took his unfortunate trip to Xibalba, from which he did not return. Those other sons are regarded as the patrons of artists and writers. They were jealous of their younger half brothers, the twins, and neglected and abused them, so the twins turned them both into monkeys.

A few days ago, scrolling down my Instagram feed, I paused on a post from the NASA account. The image was a computer simulation of two black holes colliding in space. In September, astronomers were able for the first time to record the shape of gravitational waves rippling through space-time. They arrived as an almost undetectable wobble in an otherwise unremarkable transmission, the quivering, 1.8-billion-year-old remnant of two black holes colliding. Someone had animated a video depicting two black holes circling

one another like boxers looking for a gap in each other's defenses, dragging the stars around them into furious orbits until they eventually and very suddenly combined into a single black hole the size of fifty-three suns. The Instagram post was a still from that video. It looked like the face of an owl.



79,410 likes
nasa What happens when two supermassive black holes collide? Until last year, we weren't quite sure. Gravitational waves! Gravitational waves are ripples in space-time originally predicted by Albert Einstein more than 100 years ago, but confirmed for the first time in 2016 by the Laser Interferometer Gravitational-Wave Observatory (LIGO). To date, LIGO has made four detections of gravitational waves emanating from the mergers of black holes. Einstein pictured these waves as ripples in the fabric of space-time produced by massive, accelerating bodies, such as black holes orbiting each other.

When I, and I first moved to the desert, we set ourselves the task of learning the stars. Except for a few periods of a month or two in a rented cabin here, I had lived in cities all my life and never managed to learn anything beyond the most easily identifiable constellations: Orion, the Big Dipper, the Pleiades.

L. is more disciplined about these things than I am, so every night we bundled up—it was early winter then—stood outside the house, and studied a new sector of the sky. We extended the diagonal line formed by Orion's belt down to Sirius, in Canis Major, and up to Aldebaran, the brightest star in Taurus. (John Berger: "One can lie on the ground and look up at the almost infinite number of stars in the night sky, but in order to tell stories about those stars they need to be seen as constellations, the invisible lines which can connect them need to be assumed.") We learned to imagine a line between Orion's right foot, Rigel, and his left shoulder, Betelgeuse, and to follow it out to Gemini, the twins—not Hunahpu and Xbalanque but Castor and Pollux, both hatched from the same shiny egg after Zeus, taking the form of a swan, raped their mother Leda.

The weeks passed and the winter progressed. We traced a new line between the two stars on the inside of the Big Dipper's bowl and followed it to a great backward question mark that had not been visible a month before and that formed the mane and shoulder of Leo. Later, in the spring, we watched Scorpius and Sagittarius rise and set and saw how the constellations of the zodiac—and the planets and the moon—travel along an established path, a sort of highway across the sky, the ecliptic, which sways a little as the year progresses, and then sways back again. We read what we could and watched videos on YouTube so that we could better visualize and understand what these movements meant, how they reflected the shifting position of the Earth in the universe, its tilted orbit around the star we call the sun.

I remember standing in front of the house and almost falling down in a moment of dizzying comprehension, staring at the Milky Way or the polestar and understanding with my body as much as my mind where we were in the universe and how and where we were moving. I felt like I'd been punched. More than with any political or philosophical revelation, the entirety of my perspective on

existence—which, despite all my convictions and everything I understood in the abstract, was nonetheless centered on the earth, and for the most part on this particular North American landmass, and on this minuscule body and the tiny and petty radius that extends from my eyes and thoughts and emotions—all of it shattered. I am only exaggerating slightly. I had my passport number memorized, my Social Security number and my street address, my PO box and zip code, but I had never known where I lived. Or where we were going. Whenever I arrive in a strange city I learn the basic layout of the streets as quickly as I can so that I don't do something stupid or get lost, but for my entire life I had somehow neglected to take this most fundamental step, one that humans had been taking for millennia.

I began to understand, as the Maya did, and the Greeks and Egyptians and Somalis and Indians and Sumerians and Chinese did, that time and space are inseparable. The sky is a clock, and a calendar is also a map. To know a date and a time is to know the positions of the planets and the stars, their relation to one another and to us. To know where the stars are is to know what time it is, what day and what year. Time is not an independent vector that pushes on, stubborn and cocksure, taking us to a place called the future. It lives in our bodies and in the stars, in the mountains that rise up from the sea floors, in the wind and rain that wash the mountains back into the sea. Everything moves. Mountains and oceans as well as stars. Orion disappears beneath the horizon in the spring and rises again in autumn, though I learned sleeping outside in the hammock on hot nights that even in August, he appears before dawn. If you stay up late enough, you'll see the next season's stars cycling past.



Every method I can think of that human beings have devised for representing time depends on displacements in space. The hands of a

clock, the swing of a pendulum, the shifting shadow of a sundial, the vibrations of the electrons in a cesium atom. Time is motion. It favors circles, spirals, and ellipses, but it also does not mind explosions, supernovas, catastrophic disruptions that appear to halt the rhythmic flow. It is worth considering too, though, that those disruptions and all their violence are part of some larger cycle, one so immense that we are not equipped to trace the path of its orbit.

If only we could stay up late enough and see what rises next.



I read in the paper this morning that the Rhino, in the middle of a ceremony to honor two Navajo veterans of the Second World War, could not resist a jibe at a senator who had claimed native ancestry, calling her Pocahontas, as he has on several occasions before. This time no one laughed. At least some of the people gathered in the Oval Office likely knew that the historical Pocahontas was the daughter of the Mattaponi chief Wahunsenaca, whose people had the misfortune of living a few miles from the site chosen by the English for the settlement of Jamestown. When she was about fifteen, Pocahontas was kidnapped by a man named Samuel Argall, who later claimed that he did not abduct her but traded her fair and square for a small copper kettle. According to Mattaponi oral history, if not the English texts, she was raped while in the custody of the English and gave birth to a son. He would be named Thomas. Later she was married to one John Rolfe and given the Christian name Rebecca. Rolfe brought his young wife to England. She sailed on the same ship that two years later would carry the first enslaved Africans to the Virginia colony. Rebecca Rolfe, born Pocahontas, died at the age of twenty, far from home, in the English town of Gravesend.

Except for its extensive use in myth and marketing, there is little that is unique about Pocahontas's story. She was far from the only

indigenous woman to be so abused. But alongside the many efforts preserved in print and on celluloid to twist the tragedies that befell her into the honeyed pap required for exonerative nation-building, another history survived. Without books and without paper, in the long shadow of a genocide, another narrative persisted, from mouth to ear: they took her and they raped her; she did not love him or any of them.



It's nothing to be smug about, but it is possible that we are no worse than the rest. And by "we" this time I mean modern-day Americans with our SUVs and our HDTVs, our outlet malls and our prison archipelago, our active shooter alerts and fracking-induced earthquakes, our escape rooms and tent cities, our forward operating bases and our concentration camps for the immigrant poor. We are not that much worse anyway, perhaps. The Maya did not shy away from human sacrifice either, and the Aztecs made an industry of it. People fought wars and slaughtered and mutilated and abused each other throughout the Americas long before any Europeans arrived here, as humans have in every other place. Most states from ancient Babylon onward have been even more brutally unequal than our own, and slavery has, almost universally, been coeval with what we like to call civilization. Humans living before the rise of organized states and even before the advent of agriculture left a legacy of enormous devastation: the ongoing, sixth wave of extinctions did not begin over the last couple of centuries but thousands of years earlier, with the extermination of species after species of large mammals, most likely thanks to human recklessness, on nearly every continent. The spread of *Homo sapiens* across the Western Hemisphere coincided with such a vast decimation of large herbivores—think mammoths and camels and oversize sloths—that some scientists have speculated that the resulting loss in atmospheric methane (herbivores do a lot

of belching and farting) was enough to alter the climate, causing a drop in temperatures that lasted thirteen hundred years. That's one theory, anyway. More likely it was a meteor colliding with the earth. Worlds end all the time.

All of this is to say that human beings have fucked up before, but never have we fucked up as we are fucking up now. In less than fifty years—not even the heartbeat of a gnat on a planetary scale—we have eliminated 60 percent of the mammals, birds, fish, and reptiles that populated the earth. The insects and amphibians aren't faring any better. As many as a million species are now facing swift extinction. We have transformed, and not for the better, 75 percent of the surface area of the planet, destroyed 85 percent of its wetlands, and befouled, to varying degrees, two-thirds of the volume of the oceans. We could, if you want, sigh and shrug and agree that humans suck, that we are a rogue species, a kind of poorly evolved virus that can't help but kill its host, some bipedal breed of demons, a curse, and that we cannot avoid our fate. Plenty of evidence would support these conclusions.

Surrendering to inevitability can feel pretty good, but it does not get us off this hook. Despite our Paleolithic ancestors' wanton overhunting of mastodons and long-nosed peccaries and flat-headed peccaries and giant beavers and gianter sloths, and despite our species-wide eagerness to mistreat one another more or less everywhere and all the time, no other humans have managed to be destructive on anything close to the scale that we have over the last two centuries and change. (Not even the wing bear of a midge...) Or, I should say, on anything close to the scale forged by one relatively small subsection of humankind—mainly Europeans and those, like me, of European descent living in what gets called the Global North, the last two centuries' inheritors of what some folks still hail as Western Civilization. West and North are hardly precise geographic terms here, but you know who I mean: we fucked things up for everyone.

I take no pleasure in this verdict. Self-flagellation is another form of narcissism. But if despair is an indulgence we cannot afford, so is delusion. Among all the shrieking and shouting and fearmongering and warmongering and the mad, panicked bellows of the Rhino, I occasionally hear some talk out there that is not entirely insane. Murmurs and whispers at the margins, calls to unmake the economy that brought us here and, while there is still time, to find some way to build a new one that does not depend on the illusion of eternal, self-sustaining growth, one that is based neither on the massive exploitation of fossil fuels nor on the systematic exploitation of other human beings. This is no small task, I know, but it will be doomed in advance unless we also work to dismantle our delusions: the flattering stories we tell ourselves about ourselves, the myths that structure our existence so seamlessly that we don't know they're myths, the ones that carried us here, and with us everyone, as surely as all those coal- and diesel-powered engines did.

Actually, there is one kind of clock that does not use space to measure time. The ancient Chinese made "incense clocks," which relied on the consistent rates of combustion of different varieties of incense. The scent changed to mark the passage of the hours.

That's how it is, isn't it? Time has a certain smell.

I grew up in the seventies and eighties in a family that lived and breathed politics. Dinner conversation leaped from Falwell to the Sandinistas to the nuclear meltdown at Three Mile Island. Pass the salt and the gravy—you need a napkin there, kid? The height of the Cold War had passed, but I had heard enough adults express alarm that Reagan's cowboy bullshit was going to get us all killed

that I did not expect to live to adulthood. I don't remember feeling sad about this, just accepting it, that life had a horizon, and it was close. I read a lot. I asked a lot of questions. I knew about the dread mechanics of nuclear winter and the various stages of radiation poisoning. I knew to squeeze my eyes shut when the blast came because the flash could burn out your retinas. (But wouldn't it burn through your eyelids too?) Manhattan, just thirty miles away, would without question be a target. So would the Grumman plant a few towns over. I spent long afternoons thinking hard about what I would do if I survived the initial impact, whether I should find a way to kill myself or take my chances and live on as a mutant, my skin peeling off in sheets. If I had to, would I be able to eat the dog?

Then it ended. The Soviet Union fell. The Cold War was over. I read J. G. Ballard and every work of apocalyptic fiction I could find. I could rhapsodize if you let me about Octavia Butler and the Strugarsky brothers and Russell Hoban's *Riddley Walker*. I thought Denis Johnson had been going downhill ever since *Fiskadoro*. I wrote stories and novels of my own. Cataclysm loomed in nearly all of them, and a vague sense of guilt. But time had not ended. On it ticked, and if I'm honest I felt lost, agoraphobic. Would it really stretch on forever? Occasional panics ensued, warheads gone missing from the old Soviet stocks, Ebola, dirty bombs planted out there somewhere by CNN's latest villains, a nagging sense that the twentieth century was not finished with us. I kept busy. There was plenty to get upset about and plenty left to fight for, but the fear of full-on planetary catastrophe wandered off for a decade. Maybe two.

It's back, of course, but not like before. In the eighties there was just Reagan and the Russians. Now the danger comes from ever-multiplying fronts, all of them at once. There's the Rhino and the North Koreans, and the Rhino v. Iran. There are the wars in Iraq, Syria, and Yemen in which nearly all the major military powers on the

planet spread death by proxy because, for now, they are not ready to face off directly. There is the unlikely romance between Netanyahu and the Saudis, impatient with this by-proxy crap. There are the fascists in European parliaments and the fascists in the streets and the fascists in the White House. There is the vast and lethal infrastructure of Bush and Obama's war on terror waiting for the tiniest excuse to leap to yet another battlefield. And on top of it all, beneath it all, on every surface and every side of everything, there is the already ongoing mass extinction, the melting glaciers, the jet stream stalling out, the droughts and the fires, the gathering storms. Time has a stench.

This morning I checked the news on my phone while brushing my teeth and read that North Korea had tested a missile capable of reaching Washington, D.C. In other words, almost anywhere in the United States. The Rhino's response so far has been restrained, or perhaps just distracted. He spent the morning retweeting videos posted by a leader of an obscure English ultranationalist group. Everyone on Twitter was indignant as always, but I felt only relief. Today, at least, he was too scattered to insult Kim Jong-un.

If time really is ending, if these are end times, maybe it is worth pausing to ask: What is time? How do we understand it? Why do we experience it the way we do? Have that understanding and that experience helped to lead us here, to this precipice and the particularity of this specifically bad smell?

Eventually Hunapu and Xbalanque got a rat to tell them where their father's ball-playing gear was hidden. It was hanging from the roof beam of their grandmother's home. The rat gnawed through knots and the brothers scooped up the gear. They began to play, as

their father and uncle had. The Lords of Xibalba heard them playing and sent a messenger. Not owls this time—they had escaped by then—just a messenger. Their grandmother answered the door. The twins weren't home, she said. The messenger delivered his message. Again: a summons, and an invitation.

Grief froze the grandmother's heart. The last time she had received such a message—an identical message—she had lost her sons forever. She promised to pass the message along and closed the door. She sat there by herself in her home and wept in silence. She mourned her sons, gone all these years, and the grandsons who would soon be lost to her as well. A louse fell from the ceiling and into her lap. She picked it up. She let it crawl in her palm. She watched it for a while, and then she got an idea. She spoke to the louse. She called it "my child" and asked it to pass a message to the twins. She told it what the messenger from Xibalba had said, and the louse hurried off, pleased to have a purpose. But the louse was soon swallowed by a toad, and the toad by a snake, and the snake by a hawk. The grandmother almost got her way.

Not all messages reach their intended audience. Sometimes the messenger is killed, sometimes the audience. Writing in the mid-sixteenth century, the Dominican cleric Bartolomé de las Casas confided that Maya texts were crafted "with such keen and subtle skill that we might say our writings were not an improvement over theirs." I will be bolder and say that no people anywhere have devised a more beautiful system of writing. Nearly all of their texts are lost.

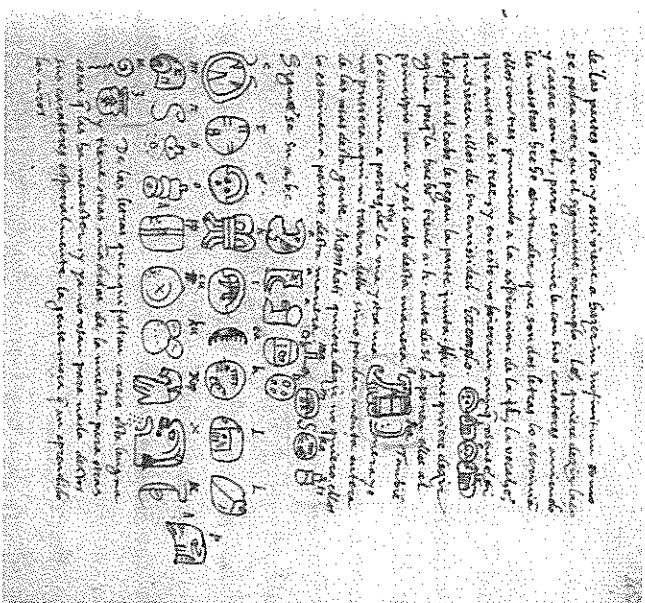
In 1549 the Franciscan monk Diego de Landa first traveled to Mexico. He was a young man of twenty-five. What he saw disturbed him. In his *Relación de las Cosas de Yucatán*, de Landa wrote of Spanish soldiers burning men alive, of seeing women's bodies hanging from trees, their children tied dangling to their feet. De Landa witnessed, he wrote, "unheard-of cruelties, cutting off noses, arms and

legs, and women's breasts, and they threw [the Maya] in deep lagoons with gourds bound to their feet; they stabbed infants because they could not march like their mothers, and if they shackled them with collars and they fell ill, they would cut off their heads so as not to have to stop to free them." The Spanish justified these infamies, de Landa wrote, by insisting that they could only hope to dominate such a vast population by inspiring fear incommensurate with their numbers. Perhaps they were right.

About a decade after his arrival in what was then called New Spain, de Landa was charged with bringing the word of God to the Maya of the Yucatán. He had acclimated by then. Or perhaps he had learned to make a distinction between gratuitous slaughter and slaughter for Christ. For the Spanish the Americas were, in Eduardo Galeano's words, "the vast kingdom of the devil." De Landa declared himself grand inquisitor and did his best to stamp out the idolatrous practices of the natives. Francisco de Toral, the first bishop of the Yucatán, would recount that de Landa and the three monks accompanying him bound and whipped the Maya they encountered in order to force them to confess to worshipping idols. If their victims endured one hundred lashes, "they would hang them publicly from the beams of the church by their wrists and attach a great deal of weight to their feet, and they would burn their backs and their bellies . . . until they confessed." Many did not survive this procedure.

De Landa imported to the Yucatán another key institution of the Inquisition, the auto-da-fé. He wrote: "These people also used certain characters or letters with which they wrote in their books their ancient affairs and their sciences, and with them . . . they understood their affairs and gave them to be taught and understood. We found a great number of books containing these letters, and as there was nothing in them but superstition and the falsehoods of the devil, we

burned them all, which they regarded as a wonder and which caused them much affliction." On a single day in July of 1562, de Landa is said to have burned at least twenty-seven codices, the elaborately inscribed fanlike texts that the Maya used as books.



In all of the lands inhabited by the Maya, which stretched from what is now southern Mexico through Guatemala and Belize into the western regions of El Salvador and Honduras, a total of four codices survived this and other conflagrations. An entire literature reduced to four crumbling volumes. In many places more than 90 percent of the population disappeared within a few years of the conquest, annihilated by a combination of depredation and disease. With the destruction of the codices and temples—the painted and sculpted walls of which were also vivid texts—and the decimation of such a vast portion of the populace, literacy reached its horizon. Within a

few generations, the Maya who survived could no longer read the texts written with such care by their ancestors. Or if they could, they weren't saying. The "characters or letters" that Diego de Landa imagined functioned as an alphabet—they are in fact logo-syllabic glyphs: each symbol can at once represent either a word or a syllable—would not be legible again until they were decoded by the Soviet linguist Yuri Knorozov, four centuries after de Landa's reign of fire.

The grandmother failed, by the way. Hunahpu and Xbalanque heard a hawk shrieking above them and shot it in the eye with their blowguns. When it fell from the sky, they asked it what it wanted.

"I bring a message in my stomach," the hawk replied. If the twins would repair its eye, it promised, it would deliver the message. The twins agreed. They replaced its eye with a bit of rubber, healing it instantly. "Speak," they told the hawk.

The hawk vomited up the snake.
"Speak," said the twins to the snake.

The snake vomited up the toad.
"Speak," said the twins to the toad.

The toad tried to vomit. Nothing came out. The twins kicked the toad, but still it could not vomit. They pried open its jaws and saw there, hanging from the roof of its mouth, the louse, which had not wanted to be swallowed.

"Speak," said the twins to the louse. And it delivered its message at last.



There was good news too this weekend. Or what these days counts as good news. A former lieutenant general who had briefly served as the Rhino's national security advisor pleaded guilty to lying to the FBI and agreed, as part of his plea bargain, to cooperate with the special prosecutor's investigation of Russian interference in the 2016

election. The investigation, in other words, of the Rhino. He is the second and by far the most senior of the Rhino's former advisers to take such a deal. The hounds are getting closer.

This is not quite a comfort. Distraction is the Rhino's preferred tactic. Even without a crisis, it is the only trick he knows: to provoke some fresh outrage and profit from the confusion that he sows. He has surely figured out that there is no better distraction than war. Perhaps the timing was coincidental, but on Saturday, one day after the plea deal hit the papers, his current national security advisor told Fox News that the possibility of war with North Korea is "increasing every day." Military action might still be avoided, he added, but "there's not much time left."

How can we understand these metaphors? Not much time left, time is running out, as if time were a ribbon and we're getting close to the end of the spool. What black hole awaits us when the last of it unravels?



It turns out that jumping into a black hole is a difficult proposition. Black holes cannot be seen or directly observed, their gravitational pull being so strong that it sucks in even light. Their presence, though, and a fair amount of information about them, can be inferred from the behavior of the gases that surround them, and by their effect on the movements of other bodies, such as stars. From which we can gather that, if you were serious about this, and really jumped, as you approached the event horizon—the one-way boundary that defines the black hole, through which you can enter but never leave—you would undergo a process that physicists have dubbed *spaghettification*. (Poets do not often become physicists.) The gravity pulling on one end of your body—say, your feet—would be stronger than the gravity tugging at the other end, so you would

be stretched like a nice, fresh hand-pulled noodle. If it wasn't too uncomfortable, and didn't immediately kill you, your head could watch your feet recede. Eventually, though, you would reach the infinitely dense one-dimensional point at the black hole's center, the singularity, where you, and time and space, would cease to exist in any way that we are capable of understanding.

Here's the funny bit. If I jumped into the black hole, and you stayed outside and watched me do it, you would not see me disappear. You would see me moving more and more slowly, stretching horrifically but perhaps quite comically as I went until I came to a complete stop just outside the event horizon. If I was wearing a watch and your eyes were good enough, you would see its hands spin more and more slowly until they stopped. Then you would likely see me be incinerated, watch and all, by the heat of the so-called Hawking radiation emitted by the black hole. But whatever you saw would be very different from what I experienced as I continued to float along past that horizon, stretching as I went, yawning perhaps, until I arrived at the singularity and, in this universe at least, ceased to be.



Pedro de Alvarado makes a brief appearance in a Borges story, "The Writing of the God." The plot is so simple that it hardly counts as plot: a character has a question; it is answered; the tale ends. A Maya priest called Tzinacán narrates the story from a vaulted cell deep in a stone-walled prison. The temple over which he once presided, dedicated to the K'iche' god Q'aholom, was burned by Pedro de Alvarado. His cell is divided by a wall. On the other side of it is another prisoner, a jaguar that "with secret steps measures equally the time and space of its captivity." Once a day, at noon, a trapdoor opens above the cell so that the prisoners can be fed and, for a moment, enough light enters that the priest can see the jaguar.

The priest—Borges uses the word *mago*, closer to “sorcerer” or “wizard,” and hence to the tradition of the Renaissance *magus* than to anything recognizably Mesoamerican—does not expect to be released from his prison. He passes the time trying to remember everything that he knew of the world. One night he recalls that on the first day of creation his god foresaw “that at the end of time there would be great misfortune and destruction,” and wrote a single magic sentence capable of preventing that disaster. But “no one knows where he wrote it, nor with what characters.” The priest judges that “we were, as always, at the end of time,” and that it is his destiny to find the hidden script.

It could take almost any form, he knows, “a river, the empire, the configuration of the stars.” It could be his own face. It occurs to him that the jaguar was among the attributes of his god and he becomes convinced that the sacred text is inscribed on the body of the jaguar with which he shares his prison. He spends years memorizing every mark on the animal’s coat, but he does not know how to interpret their patterns. He begins to lose hope: what words comprehensible to the impoverished cognition of humans could begin to approximate the speech of a god?

Only after he utterly despairs does the vision come to him. In an ecstasy of mystic union, he sees an enormous spinning wheel, composed at once of water and fire. In it, interwoven like threads in a fabric of infinite complexity, he can see everything that is and was and ever will be. He sees himself, one of countless strands. He sees Pedro de Alvarado, his tormentor, another. He sees the entirety of the universe and its “intimate designs . . . infinite processes that together formed a single happiness.” He understands it all, even the writing inscribed on the jaguar’s flesh.

The text is composed, he says, of fourteen otherwise unremarkable words. To pronounce them aloud would be enough to give him

the powers of a god, the ability to feed Alvarado to the jaguar, “to plunge the sacred knife into the hearts of the Spanish, to rebuild the pyramid, to rebuild the empire.” But he doesn’t do it. His vision has dissolved his belief in the centrality of his own existence. The man he had been, who craved vengeance, and meaning, doesn’t matter anymore. His petty misfortunes, his people, what did any of it add up to, “if he, now, is no one”?



Not everyone likes the desert. I’ve loved it since the first time I came out here alone—not to Joshua Tree that time, but farther north and east, to Death Valley. This was eighteen years ago. I had messed my life up in a number of ways that at the time felt irreparable. Being young and overly literal, I decided to head for the lowest spot in the hemisphere. I drove out from L.A., wrapped a scarf around my head, and walked out beneath the brutal sun over the salt flats in Badwater Basin. The earth was cracked and crusted white, the heat quivering above it. I doubt I brought much water. I didn’t make it to the very lowest point. It was too hot, and walking out there, the salt crackling beneath my boots, I started laughing and couldn’t stop. Mainly at myself, but at everything else too. The misery, the sense of failure that had sat on my shoulders for months just lifted off, pulverized by pure absurdity. I remember finding insects that had died there and been encrusted with white crystals of salt. Little jeweled crickets. I put a couple in my pocket and didn’t feel bad about turning around. I stayed in Death Valley for a day or two longer and can’t remember ever feeling so free.

Later my ex and I would rent a cabin in Joshua Tree for a month or two each year and come out to write. She had lived there before and she teased me at first: “City boy, you’ll be running back before a week is up.” It turned out that the solitude and silence suited

me. And the clarity of the light. Sometimes I came alone for weeks at a time. I didn't even want to drive into town to buy groceries. When work forced me home to Los Angeles—and really, I loved L.A.—I raced back to the desert as soon as I was done. The moment I got off the interstate and headed up the grade and over the mountains I would roll down the windows, sniff the air like a dog, and feel the tension sliding from my spine. I grew up in the New York suburbs and my people are originally from cloudy, low-skied lands—Scotland, Ireland, Poland, Ukraine—but I had never been anywhere where I felt so immediately at home.

Some people have the opposite response. My godmother and her partner came down to visit once from San Francisco. Her partner, who was probably sixty at the time, was overcome with joy the first time we took him into the park. He turned into a little boy, scrambling over boulders, his eyes enormous, his face transformed. But my godmother felt uneasy and exposed. Everything was sharp. There was too much death around. She missed the nurturing embrace of leafy green plants, moisture, and abundance. Other friends have had the same reaction. It's not an aesthetic aversion so much as an existential allergy. They feel dread, something approaching panic. They see only emptiness and the bare cruelty of nature, though the forest and the coast are no less cruel.

I tried to explain that what I saw around me was not just death but, right next to it, sharing the same space, the urgency, brilliance, and stubbornness of life. You couldn't always see it, and never would if you didn't look, but everything was alive. Even the rocks and the dirt are alive. I don't mean that in some mystical sense. Or not only in that sense. A "cryptobiotic crust" of microorganisms—bacteria, lichens, mosses, algae, fungi—covers the desert floor, an invisible web of fibrous tentacles that allows the soil to absorb the rain and resist the wind, sheltering the roots of plants and the animals that

tunnel and burrow down there, protecting everything that skitters beneath the surface of the seen. Lichens splash the rocks with brilliant greens, yellows, reds. Life thrums through this place like a current coursing through matter that is anything but inert. A barrel cactus, a brilliant, neon pink, growing alone in a crevice, anchoring itself in a few inches of sand between the rocks. Rodents that will never in their lives drink a sip of liquid water survive solely on the sparse moisture in the seeds they so nervously eat. The spring of a jackrabbit startled in a wash. The speech of ravens. And, at night, of coyotes. And of owls. In the spring, after a New York weekend's worth of rain stretched out over the entire winter, it all bursts forth in wild celebration—shrubs that seemed leafless, dry, dead for months reveal themselves in sudden and outrageous color, like drag queens at a ball. Some of them bide their time, waiting for the late-summer downpours and only then, in August or September, showing themselves in brilliant yellows, purples, blues.

Yes, death was everywhere too and more obvious here than in the fir and redwood forests of the north or the oak and chaparral that roll over the hills along the coast. There are rattlesnakes and mountain lions and the heat is surely lethal. There are creatures out of nightmares. There's a giant wasp bigger than a hummingbird that lays its eggs in the flesh of living tarantulas so that its offspring will have something to eat the moment that they hatch. There's a lizard that shoots blood from its eyes to scare off predators, a shriek that impales lizards on yucca spikes so that it can eat them at its leisure. Sometimes you see them suspended like a warning, the corpses of heretics left hanging from the ramparts.

You can't avoid the cruelty, though that's the wrong word because it's nothing so intentional. Your consciousness is not central to this drama. No one's is. That may be the real source of horror here, and of liberation. Whatever you imagine is unique about yourself,

whatever you think matters, the coyotes don't care and the owls don't care and the stars most certainly don't. The desert would be fine without you. It will be. Even if in our heedlessness we wipe out half the species in it. The desert practically shouts that at you, all day and all night, that it, and life in all its resiliency and multiplicity and magic, pulsing force, will go on. Whatever we do or don't do, whether we're still here or not.



When I was an unbearable teenager—think unfiltered cigarettes, hair in my eyes, long black overcoat, a walking sulk in pegged Gap jeans—I came across a line of Samuel Beckett's that struck with me. (This would have been in the late 1980s, when the amount of carbon dioxide in the atmosphere rose for the first time in about three million years above 350 parts per million, the level to which human beings, and most life on the planet, are adapted. I didn't know that then. Most of us didn't.) "Every word," Beckett had said in an interview, "is an unnecessary strain on silence and nothingness." This confounded me. I agreed with him, enthusiastically. I was solidly in the pro-nothingness camp. Showily, even. But Beckett had found it necessary to say those words. Ten of them in that sentence alone. Ten strains running into one, dripping all over, spoiling the virgin purity of the void. It angered me, as if Beckett had betrayed a vow. But I held him in sufficient awe that I figured he must have had his reasons, and this was reassuring. It let a little light in. Beckett had validated the urge to speak, to write. He couldn't stay silent about silence. Words are self-propelling. They boil up. The void coughs them out, like hair balls. Or the pellets regurgitated by owls: bones and hair, whole undigested limbs sometimes, teeth, feathers, claws, everything the gizzard can't digest.

That's the thing about silence I would tell my teenage self if I

could: it's very loud. And nothingness is screaming. I say this here because Borges made some version of the same move in "The Writing of the God." The priest's vision convinces him of his own insignificance, of the insignificance of any man, being, nation. That's why he doesn't pronounce the holy formula, he admits in the story's final sentence, "that's why I let the days forget me, lying in the dark." But Borges made him say this. He wrote the story, published it. He created the priest as a character, in prose, so that he might attest, in lasting print, to the futility of words.



I'll admit it's not my favorite Borges story. It is perhaps not a very good one at all. Borges's best tales fold in on themselves vertiginously, losing the reader in the same paradox that dissolves the narrative foundations of the story itself. This one simply dissolves. The ostensible plot, the historic Maya frame, reads like a stage set hastily constructed in anticipation of the main act, a mystical revelation to which the setting bears little relation. Borges appears to have borrowed the name Tzinacán, which means *bat*, from a Maya chieftain (not a priest) who is mentioned just once in Bernal Díaz de Castillo's *True History of New Spain*. The name of the god who writes the hidden sentence, Qaholom, comes up, by my count, five times in the entire *Popol Vuh*. Any other exotically indigenous name would have served him just as well.

Borges was impatient to get to that wheel. He may have seen some echo of it in the calendar stones carved by the Aztecs, which at least are circular and have to do with time, but the image is more likely borrowed from his readings of Buddhist and Kabbalistic texts, and of the Renaissance magics and mystics who borrowed from the latter. Like any good Argentine bourgeois, Borges looked across the oceans for profundity. Time existed elsewhere. In his writings he displayed

little cognizance that the hemisphere on which he lived had a history of its own that preceded the arrival of Europeans. It may be crude to suggest this, but it is not hard to read in "The Writings of the God" a strangely labored justification for silence in the face of the genocide in which Pedro de Alvarado took part, a silence that would later echo through Borges's quiet support for the military dictatorship that dominated Argentina in the 1970s and '80s. How else to understand, in the hands of an otherwise so meticulous writer, the flimsiness of its construction? Why was it so important that this vision of the insignificance of human striving be voiced by history's vanquished?

I went out for a run earlier, heading west along the boundary line of the park and toward the setting sun. I was maybe a half mile from the house when a coyote skipped across the road in front of me. I must have surprised him. If I hadn't I'm sure I wouldn't have seen him at all. He glanced at me sideways and jogged on without slowing, rendering himself invisible among the creosote and senna.

I was probably more surprised than he was. I hear coyotes every night, but I sometimes go weeks without seeing one. They're around, of course. They're just good at not being seen. Usually they start singing at dusk or a little before, a single yipping voice, then others join in, echoing one another and coming together in a chorus that rises to a frenzied, ecstatic peak and just as suddenly dissolves. If it's still light and they sound close enough—sometimes they must be yards away—I go outside and look for them. I never see them. They blend into the desert too perfectly. After midnight their calls break through the darkness and I often wake and wonder what it is they're hollering about: a successful hunt or a failed one, a jealous squabble, or something less dramatic. Maybe they're like us and just

needed to hear themselves, and one another, to find some way to fill the hollows of the night.

I've been seeing them a lot lately. I saw one in my headlights just down the street last week, and the other day in the afternoon the neighbor's dogs all began barking at once. When I looked out the window I saw a coyote trotting down the middle of the road. I find myself doing it again, putting myself at the center of this story: I flatter myself that they know I'm leaving soon, that they've been listening in on my phone calls or pressing their ears to the screens when I talk to L. on the phone, that they just *know*, and this is their way of saying goodbye. But there is no story here, or, what amounts to the same thing, there are infinite stories, with infinite centers, and coyotes surely have other things to think about.

Perhaps the least convincing thing about "The Writings of the God" is that the priest's vision leads him into a dull quietism, as if he had seen that spinning wheel from the heights of a mountaintop and decided that the cosmos was populated only with the tiniest and most insignificant of beings, paramacia and plankton, and that his own death and the rise or fall of his or any people was of no more consequence than the fading of a spot of lichens from a stone. He wasn't wrong about that, but he only looked through one lens of the telescope. The other side—the one that makes things bigger—is even more interesting, if more painful to take in. If you can blink through the tears and focus, you'll see that secret words are written everywhere, on every hair and every cell and every star.

Borges was wrong. The gods don't want us to lie down. They don't want to watch us vacillating, blinking, stuttering. They like to see us dance and fight. They like to watch us act with grace and

conviction. They want us to read what they have written. They want us to pronounce the secret words aloud.



Yesterday I read a warning that the Santa Ana winds would be blowing hard through L.A. I haven't been back there for a few weeks, but firestorms have been raging for days in Ventura, north of the city, burning more than one hundred thousand acres, from the mountains to the sea. Wildfires are normal in Southern California. This is not. The rains are late. Usually they arrive in October, bringing the fire season to an end. It's December now and it hasn't rained since May. But there is no *usually* anymore. Except for the odd wet year in which the pendulum swings to the other extreme, the rains have been coming late. The fire season has grown about a month and a half longer than it used to be. I'm not that old—I turned forty-five this fall—but I lived in Los Angeles for nearly twenty years, long enough to see its climate shift.

Now this is it. The disasters they warned us about are here. The future has already happened. Last year was that odd year, the wettest on record for the entire state. The spring was glorious—I've never seen so many flowers here—but it all dried out and the hills up and down the coast are thick now with kindling. This after several years of drought. The driest year on record came just two years earlier, leaving behind millions of dead trees. All of which adds up to perfect conditions for uncontrollable firestorms. This, according to the climate scientists, is the way it will go. Decreased rainfall in California is tied to loss of Arctic sea ice. The dry years will be drier and the wet years, when they come, will be wetter. Everywhere it's hotter.

By this morning the winds had done their work. These ones are blowing from east to west so there's no sign of the smoke from

here, but I watched a video on Twitter that someone shot while driving to work in the predawn dark. The four even lanes of the 405 freeway were familiar enough. So was the sign indicating that the Getty Center exit was a half mile away, Sunset Boulevard 2½ miles, Wilshire 3¾. The car was driving south into the wealthiest part of the city's west side. Through the smoke you could see the flames covering the hillsides to the east in orange and a blinding yellow-white. It looked like Mordor.



Perhaps the most elegant and nightmarish of all of Borges's stories is "The Library of Babel," in which he imagines the universe as an infinite, hive-like library of largely incomprehensible books that together contain everything that can possibly be expressed in all possible languages, known and unknown, as well as a great deal of actual babble. I was thinking about the story recently when I came across a post about black holes on Stephen Hawking's website. This is the bit that got my attention: "One can't tell from the outside what is inside a black hole, apart from its mass and rotation. This means that a black hole contains a lot of information that is hidden from the outside world. But there's a limit to the amount of information one can pack into a region of space... If there's too much information in a region of space, it will collapse into a black hole... It is like piling more and more books into a library. Eventually, the shelves will give way, and the library will collapse."

Borges's narrator was, in his way, more optimistic. "I suspect that the human species... is about to be extinguished," he wrote, "and that the Library will endure."



Black holes, by the by, are just collapsed stars. They are sires of haunting, the forces that worlds continue to exert after they cease being worlds. The tug of the past so strong and furious that it breaks down time itself. And they shape everything. Most if not all galaxies swirl around black holes. Ours does. At the center is a void, impossibly dense, a nothing that is reeming with being.



When I was nineteen I narrowly escaped from what was, until this fall, the deadliest wildfire in California history. It was outdone this year, in October, by fires that raged through five counties in Northern California, killing forty-four people. It was October then too. Two friends and I had driven from the East Coast to the West until our transmission blew as we crossed into California from Oregon. We spent a few days in a motel in Crescent City waiting on a rebuild. Crescent City was foggy and dull, we were running out of money, and the mechanic was moving slowly, so we hopped a bus to Oakland, where we had a place to stay. A beautiful place: my godmother's home in the hills overlooking the San Francisco Bay.

We lazed over coffee that first morning, enjoying the view, puzzled by a strange orange tint to the sunlight. The air smelled of smoke. My godmother called the fire department. They told her not to worry: they would let us know if the fire got too close. Just in case, she tossed me the keys and asked me to pull the car from the garage. By the time I had backed it into the street I could see flames crawling down the hillside. By the time we drove off, less than ten minutes later, smoke blocked the road in both directions. Everything was burning.

The memories feel like a dream: we ditched the car and ran down the slope, flames spreading through the underbrush and licking the trees all around us. We made it to a clear stretch of road and

caught a ride sitting on the trunk of someone else's car. He wanted to drive faster so he kicked us off halfway down. We caught another ride and made it somehow to Telegraph Avenue in downtown Berkeley. Everyone was standing in the street, gawking up at the burning hills, the weird orange ball of the sun staring back down through the smoke. Someone tried to sell me acid. The fire killed twenty-five people that day.

I went back with my godmother when the city at last let residents through the roadblocks to inspect what was left of their homes. Only her chimney was left. The car, reduced to skeletal essentials, was hundreds of feet from the spot where we had abandoned it. The gas tank must have blown. The neighbor's Jaguar was gone too, in its place a few small puddles of chrome that had dripped off the bumper and grille then pooled and congealed on the ground. We found the living room: the books that had lined the walls from floor to ceiling had been transformed into an undulant white sea of ash. It was quiet up there—there were no birds anymore, and not a leaf to rustle—and it's possible that I had never seen anything so beautiful. I could make out individual bindings and the deckled edges of pages that had once borne words as clear as these ones. They collapsed as soon as I touched them into a fine, slippery powder.