Introduction: STRANGE VICTORY

Fort Bragg's Glass Beach is the most popular attraction on the Northern California coast. It receives more visitors than the Lost Coast, through which steep trails navigate cloud forests, waterfalls, and ocean panoramas. It gets far more traffic than the Mendocino Coast Botanical Gardens and Mendocino Headlands State Park. From the parking lot off Glass Beach Drive, tourists descend a steep staircase between graywacke cliffs to photograph a narrow cove that sparkles with turquoise and brown and ruby shards, buffed and rounded by the surf. Posted signs beg visitors—a couple of thousand a day during the summer—not to pocket the glass but they can't help themselves.

In 2012, J. H. "Cass" Forrington, a retired sea captain and the owner of the nearby International Sea Glass Museum, which displays more than three thousand poached pieces, led a campaign to "replenish" the beach with tons of broken glass. Forrington's argument rested on an ecological claim. Because the sea glass, which created habitat for microscopic marine life, had integrated into the local ecosystem, it deserved the same protections granted to the coast redwood, the mountain beaver, the red-legged frog.

The California Department of Fish and Wildlife is responsible for protecting and maintaining "natural communities for their intrinsic and ecological value and their benefits to people." The fate of Glass Beach hung on the definition of "natural." Forrington argued that California was legally bound to dump more glass on the sand. "To say the glass is not 'natural' is simply wrong," he wrote, in a manifesto littered with an unassailable profusion of quotation marks. "Because of the damage we can do to an overall habitat, we tend to think of ourselves as being somehow 'un-natural,' and 'outside' of 'nature,' but we are an integral part of 'nature' and we can also do great good."

The great good to which Forrington referred dates to 1949, when the beach was designated for use as a landfill. The tons of glass pebbles and ellipsoids that littered the cove were the remnants of beer bottles, taillight lenses, and Tupperware. For the next two decades the beach was known to locals as the Dumps. The only way to regain the beach's natural beauty, wrote Captain Forrington, was to bury it every year under a few more tons of trash.

In the end the Department of Fish and Wildlife was unpersuaded by Captain Forrington's definition of "nature"; it declined to intervene. Forrington would not be so easily defeated, however. In defiance, he continued to sell plastic bags of pre-tumbled glass to tourists who lugged them down the wooden stairs and emptied them onto the sand. Captain Forrington believed he was doing his part to save nature, or at least "nature."

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Long after the last copy of the King James Bible has disintegrated and the Venus de Milo has gone to powder, the glory of our civilization will survive in misshapen, neon-flecked rocks called plastiglomerate: compounds of sand, shells, and molten plastic, forged when candy bar wrappers and bottle caps burn in campfires. Additional clues will be found in the ubiquity of cesium-137, the synthetic isotope produced by nuclear detonations; a several-thousand-year diminution in calcium carbonate deposition, the consequence of ocean acidification; and glacial ice cores (should glaciers remain) registering a dramatic spike of atmospheric carbon dioxide. Future anthropologists might not be able to learn everything there is to know about our culture from these geological markers but it will be a good start.

In the beginning, human beings tended to view nature as a mortal enemy—with wariness, dread, and aggression. The war began before we had even bothered to name our enemy. Already in the earliest literature, the assault is well under way, the bellicosity raw, the motives unquestioned. In "The Lord to the Living One's Mountain," Gilgamesh, terrified of death, decides he must perform a heroic feat to achieve immortality. As he can imagine nothing more honorable than the destruction of a virgin forest, Gilgamesh travels to the sacred Mountain of Cedar, beheads the demigod who defends it, and razes the forest to stubble, reserving the grandest tree for use as a gate to his city.

About seventeen centuries later, in Plato's *Phaedrus*, Socrates, reluctant to venture outside Athens' city walls, declares, "I am a lover of learning, and the outdoors and trees have never taught me anything, whereas in the city there are people and they do teach me." Aristotle is more direct in *Politics*: "Nature has made all things specifically for the sake of man." In the Old Testament, "the wilderness" is a godless domain, the anti-Eden. As in: "He led you through the vast and dread-ful wilderness, that thirsty and waterless land, with its venomous snakes and scorpions."

"Wilderness": from the Old English -ness + wild + deor, "the place

of wild beasts." Samuel Johnson defined it as "a tract of solitude and savageness." William Bradford, a founder of Plymouth Colony, reacted to the New World with horror, calling it "hideous & desolate ... full of wild beasts & wild men." The most widely collected work of the Enlightenment, Comte de Buffon's thirty-six-volume *Natural History*, proliferates with words like "grotesque," "nauseous," "pestilential," "terrible," and "filth."

Nature invited subjugation—for its own good. The American jurist James Kent extended this conceit to the human beings who had lived for millennia in harmony with the land as he sought to construct a legal basis for seizing territory from Native Americans. The continent, Kent argued, was "fitted and intended by Providence to be subdued and cultivated, and to become the residence of civilized nations." The gospel of Nature was a license to dominate, brutalize, and pillage—and feel proud of it.

Some of these examples come from Roderick Nash's totemic history, *Wilderness and the American Mind*, which describes how finally, in the nineteenth century, the terms of humanity's relationship with nature flipped. Scientists and philosophers began to question the premise that nature was a threat to civilization. They'd had it backward: civilization was a threat to nature. It had become obvious that humanity was winning its thousands-year war against nature in a rout. It was a costly victory, however. The prize was civilizational collapse.

This understanding was first articulated by Alexander von Humboldt, who was born in 1769, during the era in which human beings stopped fearing nature and took pride in their ability to master it. It was the age of the steam engine, the smallpox vaccine, the lightning rod. Timekeeping and measuring systems became standardized; the blank spaces remaining on world maps were shaded in. Even before Humboldt began his global tour, analyzing everything from wind patterns and cloud structures to insect behavior and soil composition, he intuited that Earth was "one great living organism where everything was connected." It is commonplace today to speak of "the web of life," but the concept was Humboldt's invention. It followed that the fate of one species might have cascading effects on others. Humboldt was among the first to warn of the perils of irrigation, cash crop agriculture, and deforestation. By 1800 he had come to realize that the damage wreaked by industrial civilization was already "incalculable."

Humboldt's insights were developed by acolytes like George Perkins Marsh (who warned that "climatic excess" might lead to

human extinction); Charles Darwin (who plagiarized Humboldt in the final, crowning paragraph of *On the Origin of Species*); Ralph Waldo Emerson ("the whole of nature is a metaphor of the human mind"); and the besotted John Muir ("This sudden plash into pure wildness—baptism in Nature's warm heart—how utterly happy it made us!"). By the turn of the twentieth century, Americans increasingly began to see wilderness as a spiritual refuge from the mechanization of modern life. Horror had turned to infatuation.

Yet the romantic view of nature proved counterproductive. It encouraged the protection of natural cathedrals like Yosemite and Yellowstone while devaluing the pedestrian swaths of forest, swamp, and grassland that make up most of the country. Before long the cathedrals were besieged too, victims of political pragmatism. Theodore Roosevelt and Gifford Pinchot, first chief of the U.S. Forest Service, embraced a utilitarian approach to ensure that wilderness sanctuaries could be enjoyed by both hikers and oil prospectors. When such interests came into conflict, however, conservationists lost—most flagrantly in the battle over Yosemite's Hetch Hetchy Valley, dammed in 1923 to provide water to San Francisco.

"Engineering is clearly the dominant idea of the industrial age," wrote Aldo Leopold, the father of wildlife ecology, in 1938. "Ecology is perhaps one of the contenders for a new order ... Our problem boils down to increasing the overlap of awareness between the two." Ecology, though the severe underdog, made tentative advances over the course of the twentieth century. By the first Earth Day, in 1970, it had birthed a new political movement. In the following decade, the politics of nature evolved to reflect a broader understanding of the interconnectedness of ecological threats. Concerns over air and water pollution, climate change, land development, resource extraction, species extinction, drought, wildfires, and roadside littering were consolidated under the rubric of "the environment." The definition has since expanded further to reflect the insight that ecological degradation, by exacerbating the inequalities that poison our society, degrades democracy itself. This realization has sounded the death rattle of the romantic idea that nature is innocent of human influence. We're innocent no longer.

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What we still, in a flourish of misplaced nostalgia, call "the natural world" is gone, if ever it existed. Almost no rock, leaf, or cubic foot of air on Earth has escaped our clumsy signature. As Diane Ackerman has written, "It's as if aliens appeared with megamallets and laser

chisels and started resculpting every continent. We've turned the landscape into another form of architecture; we've made the planet our sandbox."

No one has better articulated the incoherence of the nature ideal than the historian William Cronon in his transformational "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." Cronon takes, more or less, Captain Forrington's position. Nature, he writes, "is quite profoundly a human creation ... As we gaze into the mirror it holds up for us, we too easily imagine that what we behold is Nature when in fact we see the reflection of our own unexamined longings and desires." The idealization of wilderness is not merely a myth; it is antagonistic to the aims of any environmentalist. For if, in the future, something resembling wilderness is to survive, it will be only "by the most vigilant and self-conscious management."

Our most prized wilderness areas are already the beneficiaries of governmental regulation, political compromise, and the constant round of interventions euphemized as "land management." Even the rewilding movement, which preaches benign neglect to allow nature to recover at its own pace, acknowledges the need to meddle. *Wilding*, Isabella Tree's account of the transformation of her English estate into a nature refuge, details the installation of barbed wire, the importation of longhorn cattle and trapped deer, and generous applications of glyphosate. The most ambitious rewilding project, the biologist Edward O. Wilson's proposal, set forth in *Half-Earth*, to designate one-half of the planet a nature preserve, is based on the proposition that we have become "the architects and rulers of the Anthropocene epoch"—an echo of Descartes' "the lords and possessors of nature"—and must take responsibility for it. The creation of a Half-Earth would, after all, require political treaties, taxes, and armies.

We have followed Aldo Leopold's instruction to preserve "some tag-ends of wilderness, as museum pieces, for the edification of those who may one day wish to see, feel, or study the origins of their cultural inheritance." We've succeeded—calamitously. We have the tag ends and little else. One of the fundamental lessons of ecology is that isolated patches of wilderness starve to death.

The engineer and the ecologist have been enemies from the cradle. Since its founding as a discipline in the eighteenth century, civil engineering has sought to bring an unruly planet to heel—flattening infelicities of grade and angle, simplifying rugged terrain into a planar grid, routinizing chaos. But in recent decades a shift has begun. Engineers have designed buildings shaped like mountains to

reduce their emissions, wind turbines that mimic whale fins to increase efficiency, bricks of bacteria that inhale carbon dioxide. They have achieved a more powerful control of nature through the imitation of nature.

Ecologists, meanwhile, have accepted that a threatened ecosystem requires steady interventive care, as might any patient in critical condition.

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Two dovetailing observations by the novelist William Gibson describe the next chapter of this history. The first has hardened into platitude: "The future is already here—it's just not evenly distributed." The other is "soul delay," the idea that during long-distance flights the human body travels faster than the spirit: "Souls can't move that quickly, and are left behind, and must be awaited, upon arrival, like lost luggage." The uneasy sensation of waiting for your soul to catch up is what we call jet lag.

We now inhabit a similar lag: a nature lag. The future is already here, unevenly distributed. We recognize its hallmarks: rising sea levels, regular visitations of apocalyptic natural disasters, the forced migration of tens of millions, accelerating extinctions, coral bleaching, global pandemic. Also: cultured meat, reengineered coastlines, the reanimation of extinct species, bunny rabbits that glow fluorescent green. Our souls haven't caught up.

Even in the most optimistic future available, we will profoundly reconfigure our fauna, flora, and genome. The results will be uncanny. It will be difficult to remember that they will be no more uncanny than our carpeting of the American Southwest with lush lawns transplanted from the shores of the Mediterranean, our breast-augmented chickens, our taming of the world's most violent rivers. If our inventions seem eerie, it is only because we see in them a reflection of our desires. It is impossible to protect all that we mean by "natural" against the ravages of climate change, pollution, and psychopathic corporate greed, unless we understand that the nature we fear losing is our own.

The conservation of nature means the conservation of our identity: the parts of us that are beautiful and free and sacred, those that we want to carry with us into the future. If we don't defend those soft parts, all we'll have left are holograms of our worst instincts, automatons impersonating our nightmares, and a slow drift into a desert of biblical dimensions: *a tract of solitude and savageness.*

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What follows are stories of people who ask difficult questions about what it means to live in an era of terrible responsibility. In the first part, "Crime Scene," a series of amateur detectives investigate crimes against nature. Confronted with the worst of humanity, they ask, who let it come to this?

The stories in "Season of Disbelief" are about people whose fundamental understanding of the physical world is mocked by a new reality. When our land, food, and climate no longer resemble anything we've known, how do we avoid losing our humanity too?

"We are as gods and might as well get good at it," wrote Stewart Brand in the *Whole Earth Catalog*. He has since revised this to "We are as gods and HAVE to get good at it." We know what it looks like to be *bad* at it. Margaret Atwood's MaddAddam trilogy, the films of Alex Garland, Edward Burtynsky's panoramas of industrial wastelands, the petri-dish art of Suzanne Anker, and the biographies of monomaniacal billionaires in Brunello Cucinelli T-shirts give some flavor of it. The environmentalist's anxiety over "technofixes" has less to do with the technology itself than with who exploits it. "Technology is neutral," writes Roderick Nash. "The issue is how it is used." Because we are not gods but primates plagued by fear and hubris, impersonating divinities usually ends in humiliation. In "As Gods," artists and engineers navigate unintended consequences, ethical cul-de-sacs, and their own vanities as they struggle to create a more human future.

The trajectory of our era—this age of soul delay—runs from naivete to shock to horror to anger to resolve. There is no better avatar of this transformation than Robert Bilott, a corporate defense lawyer who started as a man of DuPont's America and became a man of the future.

Part I

CRIME SCENE

1

DARK WATERS

A few months before Robert Bilott made partner at Taft Stettinius & Hollister, he received a call from a cattle farmer in Parkersburg, West Virginia. Wilbur Tennant said that his cows were dying left and right. He was certain that the DuPont chemical company, which operated a site in Parkersburg more than thirty-five times the size of the Pentagon, was to blame. Tennant complained that he had tried to seek redress locally but DuPont about owned the entire town. He had been ignored not only by Parkersburg's lawyers but also by its politicians, journalists, and doctors. Bilott struggled to make sense of this. Tennant wasn't easy to understand: he spoke in a singing mountain dialect and was spitting mad besides. Bilott couldn't imagine how the farmer had gotten his phone number and he might have hung up had Tennant not blurted out the name of Bilott's grandmother.

Alma Holland White had lived in Vienna, a northern suburb of Parkersburg, where Bilott had visited her during his boyhood summers. In 1973 she brought him one weekend to a farm belonging to her friends the Grahams, who were neighbors to the Tennants. Bilott rode horses, milked cows, and watched Secretariat win the Triple Crown on TV. Of an itinerant, unpredictable childhood, this was one of Bilott's happiest memories. He had been seven years old.

When the Grahams heard in 1998 that Wilbur Tennant was looking for an environmental lawyer, they remembered that their friend's grandson had grown up to become one. They did not understand that Bilott was the wrong kind of environmental lawyer. He did not represent plaintiffs or private citizens. Like the other two hundred lawyers at Taft, a firm founded in 1885 with close ties to the family of President William Howard Taft, Ohio's leading Republican dynasty for more than a century, Bilott was a defense lawyer. He specialized in defending chemical companies. DuPont's lawyers were his colleagues. He respected the DuPont culture. The company had the money, the expertise, and the pride to do things the right way, so the notion of it recklessly poisoning a poor farmer seemed not only unprecedented

but irrational. Still he agreed to meet the farmer. He would tell his colleagues that he did so out of loyalty to his grandmother. But it was also out of loyalty to some distant part of himself.

A week later, Wilbur Tennant—burly, six feet tall, jeans, plaid flannel shirt, baseball cap—arrived at Taft's headquarters in downtown Cincinnati with his wife, Sandra. The Tennants hauled cardboard boxes crammed with videotapes, photographs, and documents into the firm's glassed-in reception area on the eighteenth floor. They were shown to a waiting room in which they sat on gray mid-century modern couches beneath an oil portrait of one of Taft's founders. Bilott's supervisor, a partner named Thomas Terp, was curious enough to join the meeting himself. Tennant was not, after all, the typical Taft client. "Let's put it this way," Terp would say years later. "He didn't show up at our offices looking like a bank vice president."

Wilbur Tennant explained that he and his four siblings had run the cattle farm since their father abandoned them as children. They had only seven cows then, two hundred chickens, and a fifteen-hundred-dollar mortgage. To survive, they had to forage in the hills for roots and berries. Over decades they steadily acquired land and cattle, investing every dollar they made back into the farm, until two hundred cows roamed more than six hundred hilly acres. The property would have been even larger had his brother Jim and Jim's wife, Della, not sold sixty-six acres in the early 1980s to DuPont. The company wanted a landfill for waste from its plastics factory near Parkersburg, called Washington Works, where Jim worked as a laborer, digging ditches, pouring concrete, and cleaning debris. Executives showed up at the property in a limousine, offering a deal. The Tennants did not want to sell, but Jim had been in poor health for years, mysterious ailments his doctors could not diagnose, and they needed the money.

DuPont rechristened the plot Dry Run Landfill, named after the creek that ran through it. Dry Run Creek flowed to a pasture where the Tennants grazed their cows. Not long after the sale, the cattle began to act deranged. They had been like pets to the Tennants, even family members. At the sight of a Tennant they would amble over, nuzzle, let themselves be milked. No longer. Now, they drooled uncontrollably. They birthed stillborn calves. Their teeth turned black. Their pink eyes glowered murderously. When they saw the farmers, they charged. After Della and her daughters encountered a cow in a death agony, making "the awfullest bellow you ever heard, the blood just gushing out of its nose and mouth and rectum," she

refused to walk the property without a loaded gun. Three-quarters of the herd had died.

It wasn't just the cows: there were legions of dead fish, frogs pet dogs and cats, and deer. The deer died in strange ways. They lay down in groups, like members of a suicide cult. The Tennants stopped eating the deer after Jim, while dressing a buck, found that its guts were fluorescent green.

At Taft a VCR was wheeled into a windowless conference room and Wilbur loaded one of his videocassettes. The footage, shot on a camcorder, was grainy and intercut with static. Images jumped and repeated. The sound accelerated and slowed. It had the pace and palette of a horror movie.

In the opening shot the camera panned across the creek, taking in the surrounding forest, the white ash trees shedding their leaves, and the shallow, creeping water, before holding on what appeared to be a snowbank at an elbow in the creek. The camera moved in, revealing a mound of soapy froth.

"I've taken two dead deer and two dead cattle off this ripple," said Wilbur in voice-over. "The blood run out of their noses and out their mouths. They're trying to cover this stuff up. But it's not *going* to be covered up, because I'm going to bring it out in the open for people to see."

The camera tracked a large pipe tilted into the creek, discharging green bubbles. "This is what they expect a man's cows to drink on his own property," said Wilbur. "It's about high time that someone in the state department of something-or-another got off their *can*."

The video cut to a skinny red cow standing in hay, its hair patchy and its back humped—kidney malfunction, Wilbur speculated. Another blast of static was followed by a close-up of a dead black calf collapsed in the snow. Its eye sparkled a brilliant chemical blue. "One hundred fifty-three of these animals I've lost on this farm," said Wilbur. "Every veterinarian that I've called in Parkersburg will not return my phone calls or don't want to get involved." He sighed. "Since they don't want to get involved, I'll have to dissect this thing myself. I'm going to start at this head."

The video cut out momentarily. It returned with a close-up on the calf's bisected head against the snow. There followed portraits of the calf's blackened teeth, its dissected liver, heart, stomachs, kidneys, and gallbladder. Wilbur pointed out unusual textures and discolorations. "I don't even like the looks of them," he says. "It don't look like anything I've been into before."

Tennant explained to Bilott that he kept organs in his freezer in

the hope that they might one day be tested in a lab. He had found giant tumors, collapsed veins, green muscles. What he didn't preserve, he burned. At night when it rained, the cattle bones shone in the dark like glow sticks.

Bilott spoke with the Tennants for several hours, watching video and reviewing photographs. He saw cows with stringy tails, malformed hooves, giant lesions protruding from their hides, and red receded eyes; cows suffering constant diarrhea, slobbering white slime the consistency of toothpaste, staggering bowlegged as if drunk. Wilbur invariably zoomed in on their eyes. "This cow's done a lot of suffering," he would say, his voice pinched with horror, as a blinking eye expanded to the size of the screen.

Bilott didn't know what to say. *This is bad*, he thought. *There's something really bad going on here.*

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Bilott agreed immediately to take the Tennant case. It was, he felt, "the right thing to do." But that didn't mean that Bilott felt that his previous work for Taft, representing chemical companies, had been the wrong thing to do. He hadn't really thought about the ethics of the job one way or the other, if he were to be honest about it.

Bilott spoke cautiously, softly, with a lawyer's aversion to making unqualified statements. Stress played around the corners of his eyes. He was at great pains to conceal the furious energies behind his composed demeanor, but on occasion, when speaking about some injustice done to him or his clients, an inner anger flashed through a sudden wince or scowl. Soft-spoken, milk complected, with primly combed hair that grayed at the temples and a strict personal dress code of anonymous ties and cleanly pressed dark suits, Bilott convincingly played the role of interchangeable corporate lawyer. But it was a role—one for which he'd had to study and rehearse and hone. Unlike most of his Taft colleagues, he had not attended an Ivy League college or law school. He did not hold a membership to, or know the difference between, the Camargo and the Kenwood country clubs. His father had been a lieutenant colonel in the air force, and Bilott spent most of his childhood moving among bases near Albany, New York; Flint, Michigan; Newport Beach, California; and Wiesbaden, West Germany. He had attended eight schools before graduating from Fairborn High, near Ohio's Wright-Patterson Air Force Base. As a junior, he received a recruitment letter from a tiny liberal arts school in Sarasota called the New College of Florida, which graded pass-fail and allowed students to design their own curricula. That sounded

good to him. The friends he made in Sarasota were idealistic, progressive—ideological misfits in Reagan's America. He met individually with his professors, who emphasized the value of critical thinking. He learned to question everything he read, to refuse to take anything at face value, to ignore the opinions of others. That philosophy confirmed his fundamental sense of the world and gave him the language to articulate it. Bilott studied political science and wrote his thesis about the rise and fall of Dayton. He hoped to become a city manager.

But his father, who late in life enrolled in law school, encouraged Bilott to do the same. To the surprise of his professors, Bilott withdrew from a doctoral program in public administration to attend law school at Ohio State. His favorite course was environmental law. It was the rare legal field in which he felt he "could make a difference." When he accepted an offer from Taft, his mentors and friends from New College were aghast. They called him a sellout. Bilott didn't see it that way. He had just wanted to get the best job he could. He had never known anyone who had worked in corporate practice, but his father told him that the larger and wealthier a firm was, the more opportunities he'd get. That made sense to Bilott, though he didn't really give it much thought one way or another.

At Taft, he volunteered to join Thomas Terp's environmental team. It was, as he had suspected, a moment of tremendous opportunity for environmental lawyers. Ten years earlier, Congress had passed the legislation known as Superfund, which financed the emergency cleanup of hazardous-waste dumps. Superfund created an entire subfield within environmental law, one that required a deep understanding of the new regulations to guide negotiations between the government and private companies. This was a lucrative line of business for Taft, if not a particularly alluring one to recruits—with the exception of Rob Bilott.

As an associate, Bilott was asked to determine which companies contributed which toxins and hazardous wastes in what quantities to which sites. He took depositions from factory workers, searched public records, and organized vast quantities of historical data. He became an expert on the Environmental Protection Agency's regulatory framework, the Safe Drinking Water Act, the Clean Air Act, the Toxic Substances Control Act. He mastered the chemistry of the pollutants, even though chemistry had been his worst subject in high school. He learned how the companies managed hazardous waste, how the laws were applied, and how to protect his clients. He became the consummate insider.

Bilott was proud of his work. Most of his clients, he believed, wanted to do the right thing. It was his job to help show them how to do it. He worked long hours, and some of the other associates began to worry about him. It was obvious that he knew few people in Cincinnati and he made no time to meet anyone. A colleague on Terp's environmental team took it upon herself to introduce him to a childhood friend named Sarah Barlage. She was a lawyer, too, at another downtown firm, where she defended corporations against workers' compensation claims. Bilott joined the friends for lunch at Arnold's Bar and Grill, the oldest tavern in downtown Cincinnati. Years later, Sarah would have no memory of Bilott opening his mouth. Her first impression was that he was "different, not like the other lawyers." She didn't mind that he was quiet; she was chatty, so she figured they complemented each other. Bilott didn't talk much on their first date either, because they went to see a movie, *Cape Fear*. Later they confessed to each other that they hated going to movies. They married in 1996.

The first of their three sons was born two years later. Bilott felt secure enough at Taft for Barlage to quit her job and raise their children full-time. Terp, his supervisor, recalled him then as "incredibly bright, energetic, tenacious and very, *very* thorough." He was a model Taft lawyer. Partnership was in hand.

Then Wilbur Tennant called.

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The Tennant case put Taft in a highly unusual position. It was awkward, taking on DuPont, but Thomas Terp assumed the case would be easily resolved. He defended Bilott against anxious colleagues, explaining that the occasional plaintiff's suit made Taft a better defense firm, just as a photographer might sit for a portrait or a CEO might take a shift on the assembly line. It was the Taft way, he said, though Bilott's colleagues were not convinced.

To bring a lawsuit in West Virginia, Bilott needed a local attorney. He turned to Larry Winter, a personal injury lawyer who could not have been more different socially—garrulous, charming, loose—but shared Bilott's knowledge of how corporate giants operated. For many years, Winter was himself a DuPont lawyer—a partner at Spilman Thomas & Battle, which represented DuPont in West Virginia. Winter was stunned that Bilott would sue DuPont while remaining at Taft— "inconceivable," he would say—but he was happy to join the case.

Bilott did for the Tennants what he would have done for any

corporate client. He pulled permits, studied land deeds, and requested all documentation related to the Dry Run Landfill, including the chemicals DuPont dumped into it. Bilott and Winter formally filed a federal suit against DuPont in the summer of 1999 in the Southern District of West Virginia. It alleged that the company had violated its permits and contaminated the Tennants' property. Within a week, Bilott received a call from DuPont's in-house lawyer Bernard Reilly.

It seemed like a stroke of fortune: Bilott had known Reilly for years and admired him. Reilly spoke to him in the avuncular manner of a senior colleague, a fellow club member. Reilly wanted to help the young lawyer with his grandma's cause; he really did. To that end, Reilly had good news: DuPont had already begun, at no small expense, its own study of the site, in partnership with the EPA. Six veterinarians—three chosen by DuPont, three by the EPA—would determine the source of the cattle's problems. Bilott, reassured that a solution was in hand, agreed to wait for the results before requesting any further documents. Reilly said it would take a couple of weeks.

It took six months. The veterinarians concluded that DuPont was not to blame for the dying cattle. Despite a rigorous testing of the creek, they had detected "no evidence of toxicity." The culprit, instead, was poor husbandry: "poor nutrition, inadequate veterinary care and lack of fly control." The Tennants didn't know how to raise cattle. If the cows were dying, it was their own fault.

This did not sit well with the Tennants, who had begun to suffer the consequences of antagonizing Parkersburg's main employer. They complained to Bilott that men in trucks parked across the road from their property and photographed them. They came home from church to find their personal files tossed around the room. Helicopters flew over their homes, hovering so low that picture frames fell off the walls. Lifelong friends began to ignore the Tennants on the street and walked out of restaurants when the Tennants entered. When confronted, they would tell the Tennants, "I'm not allowed to talk to you," it being understood that DuPont's word was, in Parkersburg, as binding as the Word. The Tennants changed congregations four times. Wilbur Tennant, his freezer packed with bovine organs, grew increasingly paranoid—"ready to kill," said Della. When the helicopters droned overhead, he stood beside his truck with his .25-06 rifle, screaming at the sky.

The Tennants called the office nearly every day but Bilott had little to tell them. He couldn't blame them for getting angry. He was angry too. The cattle report, he realized much too late, was nothing more than a delay tactic, and a successful one at that, costing him six

with names resistant to memorization or even pronunciation, every time they inhale, eat, drink, bathe, or apply makeup. Many of these chemicals linger in their organs, tissues, blood. Some, like PFOA, never leave. There are more than eighty-five thousand synthetic chemicals in regular circulation. More than half a century after *Silent Spring* and forty years after Congress passed the Toxic Substances Control Act, the American government has restricted use of six of them.

What knowledge that does exist about these chemicals tends to be closely guarded, restricted to the private laboratories—at Dow Chemical, DuPont, 3M—in which they were invented. Until a 2016 amendment to TSCA, the EPA had ninety days to review the safety of each new chemical that hit the market. It did not conduct its own tests; it had to rely on independent data. Most of that data came from the firms that manufactured the chemicals. If the EPA failed to take immediate action, the chemical was deemed safe forevermore. PFOA and the tens of thousands of other chemicals introduced before the 1976 passage of TSCA were already assumed to be safe. This state of affairs could be tolerated if, as Rob Bilott had originally believed, the chemical companies were responsible stewards of the public interest. The PFOA case proved they were not. Harry Deitzler, a plaintiff's lawyer in West Virginia on Bilott's team, would say that Bilott "lifted the curtain on a whole new theater. Before that letter, corporations could rely upon the public misperception that if a chemical was dangerous, it was regulated. Rob's letter said, wait a minute—the fact that a chemical isn't regulated does not mean that it's less dangerous to public health." Bilott was showing DuPont what self-regulation really was.

Taft's clients grumbled. What side was Taft on, exactly? Bilott's colleagues asked the same question. "I'm not stupid," said Bilott, "and the people around me aren't stupid. You can't ignore the economic realities of the way the business is run." He couldn't tell to what degree his professional isolation at Taft derived from his working for the enemy or from the thousands of hours he had spent in isolation from his colleagues. But he didn't dwell on it. There were always new documents awaiting him, hundreds of thousands of documents, and never enough time.

Rob's Famous Letter led, in 2005, to DuPont's reaching a $16.5 million settlement with the EPA, which had accused the company of concealing its knowledge of PFOA's toxicity. DuPont was not required to admit liability. It was the largest civil administrative penalty the EPA had obtained in its history. The fine represented less than two


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MCD
Farrar, Straus and Giroux
120 Broadway, New York 10271

First edition, 2021

Some of this material previously appeared, in substantially different form, in the following publications: *The New York Times Magazine* ("Dark Waters," "Here Come the Warm Jets," "Frankenstein in the Lower Ninth," "Pigeon Apocalypse," Parts I and III of "Bayou Bonjour," and "The Immortal Jellyfish"); *The New Republic* (Part II of "Bayou Bonjour"); *Vice* ("The Wasting"); and *Men's Journal* ("Aspen Saves the World").

Grateful acknowledgment is made for permission to reprint the following previously published material:
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Ebook ISBN: 978-0-374-71630-1

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