

health” was just an excuse to duck the cultural expectation of raising a family.

Upstairs, in Kahlo’s small bedroom, there was a pre-Columbian urn containing her ashes. On her single bed lay Frida’s death mask, an eerie reminder that the artist had bled and died in this very room. Above her bed Frida had hung a painting: a dead infant, swaddled in white, wearing a flower crown, lying on a satin pillow: an *Angelito*.

NORTH CAROLINA

CULLOWHEE

The grey whale is an impressive creature—fifty feet long and weighing over thirty-six tons, with formidable flukes spanning ten feet. A dozen miles off the coast of California, she emerges into view and exhales with a final, weakened puff. After sixty-five years, death has come for the great beast, and she hangs limp at the surface.

Some whales begin to sink straightaway, but this particular whale will remain afloat. Inside the carcass, tissues and proteins are breaking down, organs are liquefying, and gases are building up—they are filling the whale’s blubbery outer casing, transforming her into a macabre balloon. If she were to be punctured in a single spot, the force of the pressurized gases would launch her mushy innards several yards from her body. But this whale’s skin holds. Gases slip out slowly; our former cetacean deflates and begins her gradual descent to the sea floor below. Down, down she goes, traveling more than a mile, until at last the beast meets soft bottom.

Down here in the bathyal (or midnight) zone of the

ocean, it is cold and completely dark—sunlight does not reach these depths. Our whale hasn't come down here to "rest in peace" and lie on the ocean floor in cool, undisturbed darkness. Her remains are about to become the location of a grand banquet that will last decades. This process, known in the ocean science community as a whale fall, creates an entire ecosystem around the carcass—like a pop-up restaurant for the alienlike creatures of the primordial depths.

The mobile scavengers smell the whale and arrive first to feast. They are the quintessential otherworldly denizens of the deep: sleeper sharks, hagfish (an unfair name—they're more like slime-producing eels than fish), crabs, and ratfish. They begin tearing into the decomposed flesh, consuming up to 130 pounds a day.

Once the bulk of the organic material has been picked clean, the area around the carcass becomes a hotspot of life on an otherwise barren seabed. Mollusks and crustaceans set up camp. A thick red fuzz of deep-sea worms grows on the whale's bones, 45,000 of them per square meter. The worms' Latin name, *Osedax*, means "bone devourer." True to that designation, these eyeless, mouthless creatures will burrow into the bones and extract oils and fats from within them. Recently, scientists have discovered that the sulfur-loving bacteria present at a whale fall are similar to those found in deep-sea hydrothermal vents.

The site of the whale fall turns into a decades-long version of "Be Our Guest" from *Beauty and the Beast*, a debauched, celebratory party where creatures devour the whale "course by course, one by one." The whale is the epitome of a postmortem benefactor, part of an arrangement as beautiful as it is sensible—an animal dying and donating its body so that others may thrive. "Try the grey stuff, it's delicious," the carcass seems to say. The whale, in short, is a valuable necrocitizen.

To be fair, science has yet to determine how whales *feel* about this state of affairs. Given the chance, would they prefer to forgo the whale fall and have their carcasses locked up in an impenetrable coral reef fortress somewhere? A postmortem safe haven, perhaps, but one that would prevent other animals from benefiting from the vital nutrients that are no longer of use to the departed whale?

Whales spend their whole lives supporting the environment that surrounds them. Their diet is fish and krill, and for years humans assumed that *fewer* whales = *more* fish and krill for us. This equation justified the whaling industry's slaughter of almost three million whales in the twentieth century alone.

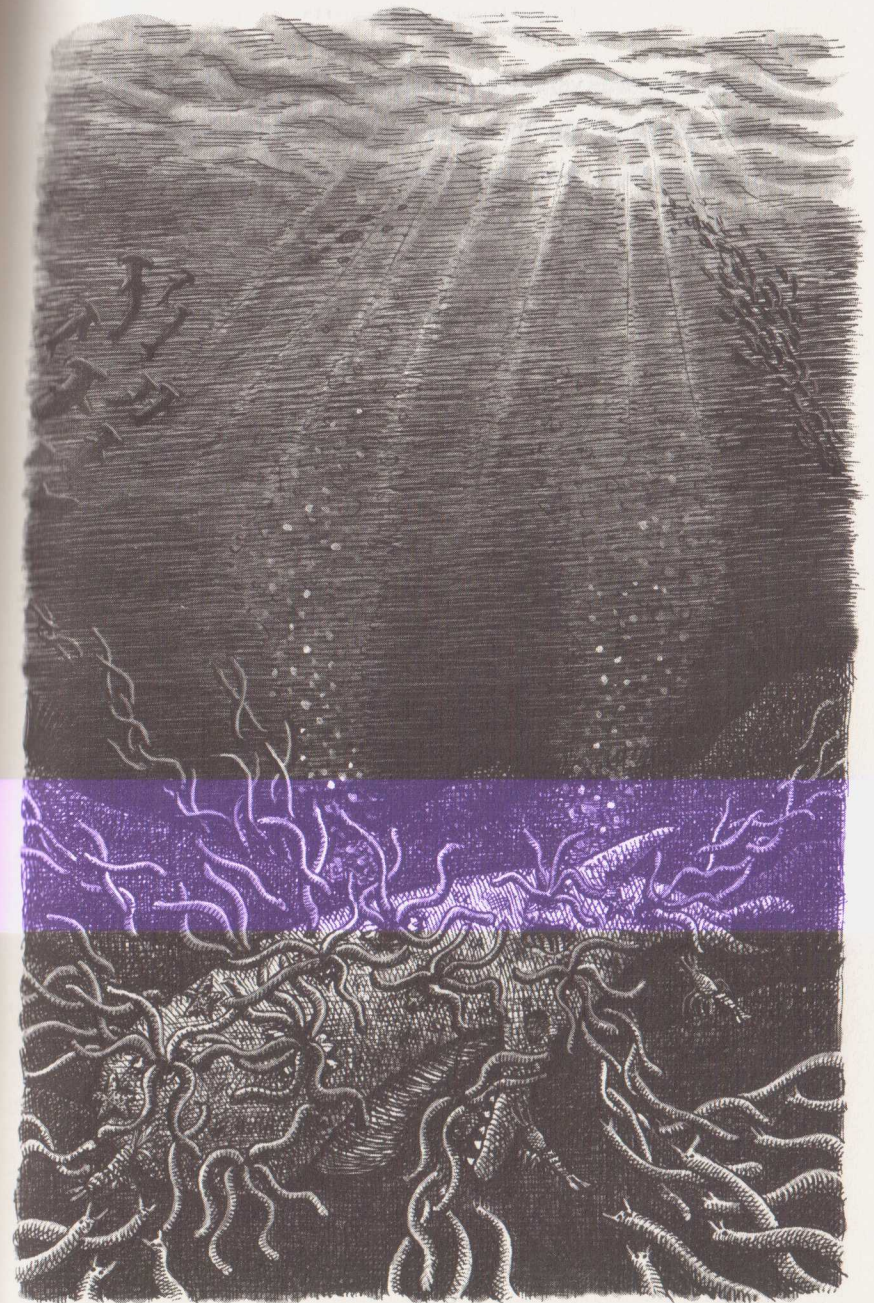
As it turns out, fewer whales does not mean more fish. Whales dive down to the shadowy depths of the ocean to feed. They must return to the surface to breathe, and

while there, they release robust fecal plumes. (Note: Poop, they're pooping.) The whale poop is full of iron and nitrogen, which trickle down to fertilize plankton, which—you guessed it—fish and krill depend upon to live and thrive. Whales are a crucial part of this cycle during their lives, and in death they are no different.

Instinctually, you may feel the same pull to contribute past your own death. How else to explain the increasing popularity of the refrain: “When I die, no fuss. Just dig a hole and put me in it.”

A sensible request, indeed. Sending your corpse back into nature would seem to be both the most inexpensive and the most “green” option for your death. After all, the plants and animals we consume during our lives are grown and nourished by the soil.

A single acre of soil can contain 2,400 pounds of fungi, 1,500 pounds of bacteria, 900 pounds of earthworms, 890 pounds of arthropods and algae, and 133 pounds of protozoa. The soil teems with life, as does the dead body (inside its sausage casing of keratin, or dead skin). Microscopic sorcery takes place when a body is placed just a few feet deep in the soil. Here, the trillions of bacteria living inside you will liquefy your innards. When the built-up pressure breaks the seal of skin an orgiastic reunion takes place, in which our bodies merge with the earth.



We owe our very lives to the soil, and, as William Bryant Logan said, “the bodies we give it back are not payment enough.” Though, presumably, they are a start.



“HOW WOULD YOU describe what we’re doing here, Katrina?”

She thought for a moment before replying, “We’re setting up the experiments.”

“What are the experiments?”

“Wait, let’s not call them ‘experiments,’ that makes it sound like I’m a mad scientist.”

“What’s a better word than experiments?”

“We’re here setting up *the mounds*. No, that’s equally creepy. Dammit.”

I waited.

“Let’s just say we’re tweaking the mound recipe,” she decided, only half satisfied.

You have to be careful with language if you’re Katrina Spade, the person leading the charge, as the *New York Times* put it, to “turn corpses into compost.” It is a delicate sales pitch, a proposal that toes the line between eco-death innovation and the deranged Soylent Green scheme of a charlatan.

Katrina and I drove up the winding roads of southern

Appalachia, the Blue Ridge Mountains that straddle the border between Tennessee and North Carolina. Here, as in the rest of the United States, the modern funeral industry has seeped in and taken over the rituals and logistics of deathcare. But because of the isolation, religion, and poverty of the area, the creep of industrialized death took longer here than almost anywhere else in the country.

At last, we turned down an isolated road and pulled up at a gate. Dr. Cheryl Johnston—Dr. J, as her students called her—was already there, joined by a small group of undergraduate volunteers. Dr. J runs the Forensic Osteology Research Station (FOREST) at Western Carolina University. You might have heard this type of facility described as a “body farm,” where corpses, donated to science, are laid out to decompose for forensic study and law enforcement training. But, as Dr. J is quick to point out, “body farm” is an inaccurate term: “A farm grows food. We don’t *grow* bodies. Considering our end product, you could call it a skeleton farm, I guess?”

I was giving the side-eye to some silver tarps covering what looked to be dirt burial mounds. “Do they place the donor bodies under there? Right where we park the cars?” I wondered. I had seen many a dead person in my day, but they were all nonthreatening, lying on sterile white tables and gurneys. It makes you uneasy when a body is

somewhere it's not "supposed" to be, like seeing your chemistry teacher at the supermarket.

"Nope," Dr. J said, after introductions were made. "They're not human. Those are the black bears. Roadkill. Sometimes the Department of Natural Resources brings us fifteen to twenty a year. Their fur is so black that they're pretty easy to hit with your car at night."

The bear burials (*bearials*, if you will) acted as practice for the undergraduates. After a bear decays down to bone, the students set up a systematic grid and collect the bones to bring back to the lab for examination. Successfully processing a bear permits a student to work on the human beings, located not in the parking area (I was pleased to discover) but in a 58-by-58-foot pen up the hill, fenced in with razor wire to keep out the curious, which include coyotes, bears, and drunk college students.

The group trudged up the hill to the pen's padlocked gate, which Dr. Johnston opened. Stepping inside, I wasn't hit by a pungent smell or an eerie sense of death. Instead, this tiny pen for corpses in the North Carolina mountains was picturesque as hell, with dappled sunshine pushing through the trees and hitting the voluptuous undergrowth. At present it held the remains of the fifteen souls that had come to rest in the facility postmortem—three bodies buried beneath the soil, twelve exposed on top.

The bones of a female skeleton in purple polka-dot

pajamas had scattered due to runoff from the spring rainstorms. Her skull had come to rest down near her femur. Several yards to her left a man, more recently dead, had a jaw that yawned open, hanging by a thin layer of flesh that held his mandible in place. If you knelt next to him you could see the amber facial hair poking through.

Katrina gestured up the hill to a splayed skeleton. "When I was here a few months ago that guy still had a mustache and the most beautiful marbled blue skin. He didn't smell so great, though." Then, seeing as he was lying right there, she apologized. "Sorry, it's true."

The idea to compost the dead first came to Katrina when she was working on her master's degree in architecture. While other students aped the work of Rem Kool-



haas and Frank Gehry, Katrina was designing a “resting place for the urban dead.” She saw her future clients as the deceased denizens of the modern metropolis, comfortable with a life in the concrete jungle, but longing in death to return to the natural world, where “flesh becomes soil.”

Why attempt to compost, though, when the obvious way to address the primeval yearning to have “flesh become soil” would be to open more natural or conservation burial cemeteries, where corpses could go straight into a hole in the ground—no embalming, no caskets, no heavy concrete vaults? Katrina responds, correctly, that overcrowded cities are unlikely to assign huge swaths of valuable, developable land to the dead. And so she aims to reform not the market for burial, but for cremation.

The result of Katrina’s thesis was the Urban Death Project, an architectural blueprint for body composting centers in urban areas. The centers would be scalable worldwide, from Beijing to Amsterdam. Mourners would carry the dead person up a ramp built around a central core made of smooth, warm concrete, two and half stories tall. At the top, the body would be laid into a carbon-rich mixture that would, in four to six weeks’ time, reduce the body (bones and all) to soil.

The compost reaction occurs when you mix things that are high in nitrogen (think food waste, grass clippings, or . . . a dead human body) into a pile of material high

in carbon (think woodchips or sawdust). Adding a dash of moisture and oxygen causes the microbes and bacteria inside the pile to begin breaking down the organic tissues and releasing heat. This gets the whole thing cooking. Temperatures inside the compost pile often reach 150 degrees, hot enough to kill most pathogens. With the right balance between carbon and nitrogen, the molecules will bind, creating incredibly rich soil.

“During those four to six weeks you’re in the core, you’d cease to be human,” Katrina explained. “Molecules literally turn into other molecules. You transform.” This transformation of molecules is what inspired the name she’s given the process: recomposition (“corpse composting” being about three degrees too intense for the general public). At the end of the recomposition, the family can collect the soil to place in their garden, and a mother who loved to garden can, herself, give rise to new life.

Katrina was 99 percent confident we could recompose a human, and she had an impressive roster of soil scientists on her advisory board who thought that her confidence should be at 100 percent. After all, they had been composting livestock for years. The chemical and biological processes that break down a 1,000-pound steer should work just as well on a measly 180-pound human. But she needed experimental evidence on real live (well, real dead) human remains.

This is where Dr. Johnston and the FOREST facility came in. Dr. J was intrigued by Katrina's idea for studying human composting, but hadn't planned immediate experiments. Then, serendipitously, she inherited a small mountain of woodchips from the on-campus recycling program. Shortly after, she got a call that a new donor body was on its way to the facility. So she texted Katrina: "I've got a body. Should we try?"

In February 2015, that first donor body, a seventy-eight-year-old female (we'll call her June Compost) was laid in a bed of pure woodchips at the bottom of the hill at FOREST. A month later, the body of a second donor, a larger male (we'll call him John Compost) was placed at the top of the hill in a mix of alfalfa and woodchips with a silver tarp pulled over the mound. The experiments were not overly sophisticated. The sole question that these two donor bodies were answering was, "Will they compost?"

At FOREST today there was a brand-new donor body to worry about, set to arrive at the facility in an hour. His name was Frank, a man in his sixties felled by a heart attack earlier in the week. Before his death, Frank chose to donate his body to the human decomposition facility.

"Does Frank's family know about the whole composting thing?" I asked Dr. Johnston.

"I talked to the brother, Bobby, several times," Dr. J explained. "I made it clear, 'You can say no to this, and

Frank will be used for regular forensic study.' But the family insisted this is what Frank would have wanted. To be honest, by the time you sign up to donate your body to a place like this, you're up for pretty much anything."

To prepare for Frank's arrival, we had begun shoveling and hauling a giant pile of pine and maple woodchips up the hill in five-gallon painter's buckets. The physical exertion didn't faze Katrina, who was tall and lean with a short pixie haircut. Even in her late thirties she reminded me of the popular soccer player from high school, and practically bounded up the hill with the buckets.

One of the undergraduates, a blond, strapping young man, could haul four buckets at a time, two in each hand.

"You are a student here?" I asked.

"Yes ma'am, I am. A senior in forensic anthropology," he drawled. For self-preservation I attributed the "ma'am" as a Southern thing, rather than a sign of my advancing age.

Hauling woodchips in the North Carolina sun (at which I made a valiant effort, I would like to add) seemed like manual labor, and didn't give me the same sense of deathcare Zen as raking the ashes out after a cremation.

By 11 a.m. we had created a two-foot base layer of woodchips at the top of the hill in the pen. It only lacked a willing victim, our man Frank. As if on cue, a navy blue van rolled into the parking area. Two men entered

the facility wearing pressed khakis and matching blue polo shirts with Crowe Funeral Home logos. They were a father and son funeral team, the elder Crowe with white hair, the younger Crowe with blond.

The Crowes had never been to the FOREST facility, so Dr. Johnston began by giving them a tour. I could see their faces scrunch in confusion, calculating exactly how they were going to get the donor body Frank up multiple embankments and through the undergrowth. The elder Crowe broke the news to Dr. J: "He's a bit of a bigger fella."

People die in inconvenient places all the time (armchairs, bathtubs, backyard sheds, the tops of high perilous staircases). But funeral directors usually remove bodies *from* these places, not deposit them *into* these places. Funeral work prides itself on taking a dead body from chaos to order, not the other way around.

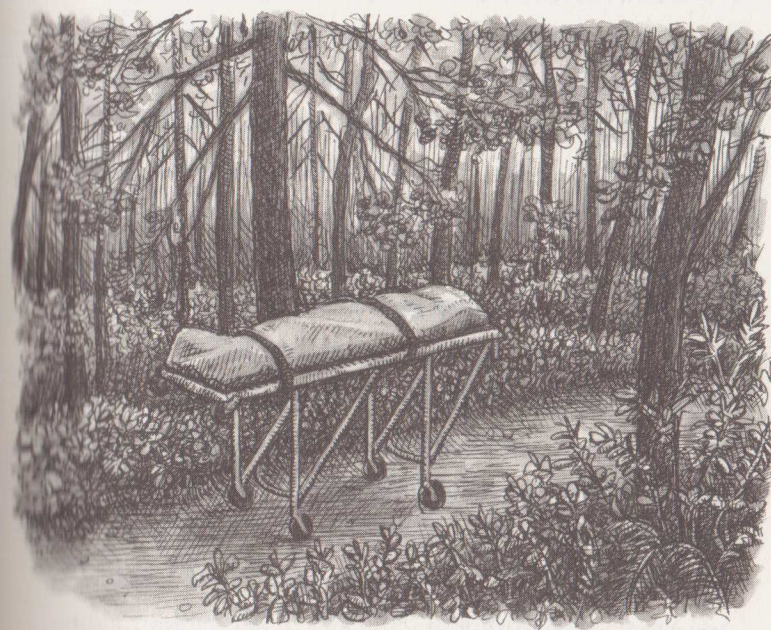
I asked the elder Crowe if this was one of the strangest removals he'd done in a while.

He looked over his shoulder, and with a dry tone, rewarded me with a "Yeah." Full stop.

Calculations were made for a route that provided solid footing without disturbing the other residents of the FOREST facility. On their messy journey to skeletonization, the donor bodies are disturbed by rainwater and small creatures. At FOREST, it was all too easy to

accidentally tromp on someone's rogue fibia if you didn't take precautions.

The elder and younger Crowes pulled a stretcher up to the entrance gate, with Frank's electric blue hospital body bag riding on top. The vibrant blue color stood in stark contrast to the muted greens and browns of the North Carolina summer. The toe tag attached to the bag read "Western Carolina University – Urban Death Project." Katrina flipped the tag to take a look. Her mouth tugged up in the smallest smile. She later told me she felt a jolt of legitimacy to see that name in print.



Father Crowe chatted with Dr. Johnston. To my surprise, his inquiries weren't along the lines of "Tell me again what y'all crazy-quacks are trying to do out here?" but had already moved to "So, are you using alfalfa to release nitrogen faster?" Father Crowe was a composter himself, and was well versed in the technicalities of the process. In a corporatized funeral industry, where I've heard a natural burial described as a "hippie myth that *our* clients would never want," it was a joy to see a more traditional funeral director present himself as an unexpected ally to a somewhat radical idea.

Unfortunately for Katrina, winning over the funeral industry won't be her only challenge. Mike Adams, a popular blogger (also an anti-vaxxer, 9/11 truther, and Sandy Hook shooting skeptic), wrote about Katrina in an article shared almost 11,000 times on Facebook. Adams viewed the recomposition project as being solely geared toward growing food for the urban populace. Since the new world order would need a steady supply of human compost to keep people fed, it would surely lead to "the forced euthanasia of the elderly so that their bodies can be tossed into the composter." Adams claimed that the project would be "used by the government to greenwash mass murder."

Knowing Katrina, a Seattle-based eco-enthusiast with a partner and two children, the idea of her masterminding

mass murder seems preposterous. But the public relations issue remains: for every person who believes it is destiny for their body to nourish the earth, there is a person who thinks Katrina's plan represents society at its most debauched and depraved.

Soon enough the struggle to get Frank up the hill began. It was a team effort, starting with a lengthy feet-first vs. head-first debate. At one point I looked over and saw a skull gazing down from its perch at the top of the hill, observing the absurdity of us living folk below.

When Frank finally arrived at the top of the hill (head-first), the blue body bag was laid on the bed of woodchips and unzipped, revealing a tall, sturdy man, naked except for underwear and socks. We rolled Frank over on his right side and gently wiggled the bag free, so it was man on woodchip, no turning back.

Frank had a white goatee and shoulder-length hair, and his left arm was draped almost elegantly behind his head, "draw me like one of your French girls" style. Tattoos covered his torso and arms: a wizard, serpents, religious symbols, a T-Rex galloping across his chest. The ink added bursts of color to the forest floor.

The undergraduates retreated down the hill to gather more alfalfa mixture, and I was left alone with Katrina for the first time all morning.

She gazed down at Frank, her eyes wet around the

edges. "This man, he's here on purpose. You know? He *wanted* to be here."

She paused, took a breath before continuing, "I am filled with gratitude."

Katrina took a handful of green alfalfa and wood chips, and placed the mixture over Frank's face, the first part of his body to be covered.

I joined in, and the two of us blanketed the mixture down his neck and around his arms, almost tucking him in. "We're making a little nest for him! It looks comfy," Katrina said.

She stopped, scolding herself. "Dr. J wouldn't want us to be this sentimental with the bodies. Cut it out, Katrina."

I wasn't so sure. Earlier in the day Dr. Johnston had told me a story about a man in his eighties who donated his body to FOREST. After he died, his wife and daughter drove his body to the facility in the family truck. They were even allowed to pick a spot in the underbrush for him. Then, only six months later, his wife died. She requested that her body be laid out in an area next to her husband. That request was honored, and man and wife decayed into the earth side by side, together as they had been in life. So much for no one being sentimental.

Dr. J was unapologetic in this attitude. "I like to call the donors 'Mr. So-and-So' or 'Mrs. So-and-So.' Call them by their real names. I don't see a reason not to. It's

still them. Other facilities disagree with me and say it is not keeping professional distance. I totally disagree. It humanizes the bodies. I meet some of these people before they die. I know them. They're people."

Dr. J's approach is part of a new wave in scientific donation practices, where a donor body is considered a person, not a nameless cadaver. Ernest Talarico, Jr., is the associate medical director at Indiana University School of Medicine—Northwest. Bodies are donated to his medical school to be dissected by young students in anatomy labs. When Talarico first started with the program, he found himself uncomfortable with the mind-set that the donor bodies were anonymous pieces of flesh, referred to only by numbers or nicknames.

Talarico set up a memorial service, held every year in January, for the program's six donor bodies. In attendance are the first-year medical students and, astonishingly, the families of the donors. Rita Borrelli, who donated the body of her husband to Indiana University, was shocked to get a letter from the students saying they wanted more information on his life. "They even wanted pictures. I was crying so hard I could barely finish reading the letter."

Participation by the family is optional, but allows the students to work through the almost insurmountable task for a modern doctor—honest conversation about death

with a family. The students even call their donor body “their first patient.” In a profile of the program by the *Wall Street Journal*, first-year medical student Rania Kaoukis explained that “it would have been easier to think of the body as a number. But that isn’t what makes good doctors.”

With the advent of this enlightened outlook, I asked Dr. J if she would be donating her own body to the FOREST facility when she sloughed off her mortal coil. The answer was yes, in principle. But she was worried about her students. Knowing the donor’s personal history and referring to the body as Mrs. So-and-So was one thing. Watching your professor decompose before your very eyes was another. But Dr. J’s real barrier was her own mother. Her mother was wholly against the idea of the decomp facility, coming from a generation where a decent funeral meant a wake in a church. She wouldn’t donate her body if her mother was alive and uncomfortable with the idea.

Recently, however, Dr. J’s mom, musing on what she would like for her own body, announced, “I don’t understand why we have to go through this whole cremation or burial rigamarole. Can’t we just be brought out to the forest and allowed to decompose naturally?”

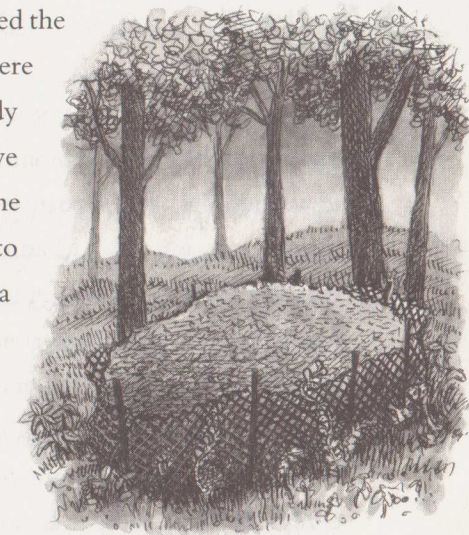
“Mom?” Dr. J replied.

“Yes, dear?”

“You know that’s what I do, right? That’s what the FOREST facility is? A place you decompose in the woods.”

Frank’s woodchip pile now rose three and half feet. It looked like a Viking burial mound. The strapping blond undergraduate hammered in a wire fence around the mound’s lower half to prevent the mulch mixture (or, God forbid, Frank) from escaping and rolling down the hill. This was a far cry from what the recomposition process would end up looking like in an urban setting, but with the birds and cicadas chirping and the speckled sunshine through the trees, I could only think that this would be the perfect place to putrefy.

The volunteer group, covered in sweat and wood dust, reentered the body pen. This time they were hauling water in recycled Tidy Cats litter containers. Twelve gallons were poured over the mound to create moisture to invite microbes and bacteria to the mix. As photos were taken to document the procedure, someone recommended removing the Tidy Cats labels so it wouldn’t



appear as “Human composting, brought to you by Tidy Cats!”—an association neither side would relish.

Katrina looks to this portion of the process, when the water is poured on top of the mound, as a future ritual. She doesn’t want the Urban Death Project facilities to share modern crematories’ allergy to family involvement. She hopes that pouring the water on fresh woodchips will give the family the same sense of power as lighting the cremation pyre, pushing the button to start a modern cremation machine, or shoveling dirt onto the coffin. As we poured water onto Frank’s mound, it felt like ritual. It felt like the start of something, for Frank and perhaps for society.



AFTER EATING LUNCH at the town sports bar (we didn’t explain to the cheerful blond waiter why we were covered in woodchips), we returned to FOREST. Frank wasn’t the only reason we had come to the facility. There was still the matter of June and John Compost, the original donor bodies. Today we would uncover their mounds to see what, if anything, lay beneath.

Trudging back up the hill, Dr. J turned to Katrina and announced, “Oh, I forgot to tell you, the cadaver dogs completely ignored the mounds.” Katrina’s face lit up.

In her career as a forensic anthropologist, Dr. J had consulted on countless missing person cases, usually centered in the dense woods of the surrounding mountains. After witnessing firsthand the difficulty officials had in locating the dead, Dr. J opened the FOREST facility to law enforcement and search and rescue volunteers with their cadaver dogs. It is a huge benefit to the trainers to have access to real decomposed bodies, in conditions similar to how they might be found in the wild. After a week of training at the FOREST facility, Dr. J sends the trainers home with a sample of what she calls “dirty dirt”—soil from underneath the decomposed bodies, which the officers can continue using for instruction back home. “You should see how thrilled they are when we give them vials of dirt or bits of decomp-soiled clothes. It’s like Christmas,” Dr. J told me. As the old carol goes, “. . . my true love gave to me, two turtle doves and a dirt vial from under a body.”

Why would the cadaver dogs ignoring the composting mounds be a big deal? The dogs work by smell and have no trouble sniffing out bodies laid out in the open, or even those buried in shallow graves. But inside a compost pile, the moisture, aeration, carbon, and nitrogen are balanced to trap the odor within the pile. Katrina is aware that the public will not accept this new method of body disposal if the recomposition facilities, meant to be places of grieving

and ritual, reek of human decay. The dogs' complete lack of interest in the body-mounds was great news for the future of the project.

It was decided that the male donor, John Compost, would be uncovered first. He was a tall, burly gentleman in his mid-sixties who had died in March, meaning he had been inside his woodchip and alfalfa pile for five months. His position at the top of the hill meant more direct sunshine, and a higher overall ambient temperature. The whole mound had been covered in a silver tarp.

Digging right into the mound with full-sized metal shovels and spades would run the risk of destroying whatever might be inside. So we used small hand-held shovels and heavy plastic rakes instead. As we cautiously dug into the pile, the bright purple and yellow color of the shovels made us look like children building a morbid sandcastle.

Then, all of a sudden, we hit bone. Dr. Johnston stepped in and used a delicate brush to dust off and reveal the man's left clavicle.

Katrina was crushed by this discovery. "I won't lie. I wanted there to be nothing there. I wanted us to dig and dig and just . . . soil."

Dr. J smiled. "See, I *did* want something to be there."

"Wait," I asked, "we're going for the four-to-six-week complete body compost here, why did you want there to be bones?"

Katrina piped in, "Because Dr. J has different motives, she wants the bones."

Although Dr. J was enthusiastic about Katrina's project, as far as she's concerned there are never enough skeletons. Forensic collections, like the one she runs at Western Carolina, have nowhere near the amount of bones they need. A collection requires a large enough sex and age range to create true, beneficial comparison.

Dr. J believes if she can nail the right removal time from the mounds, she can develop a system that will take a human from flesh to skeleton much faster than the current method—laying them out and waiting for bugs, animals, and nature to do their work.

On the day John Compost was first put in the woodchips, a layer of vivid green alfalfa had been spread over his body in an attempt to raise the temperature of the mound—which it seems to have done. But composting also needs moisture to work, and as we pulled off more of the pile, it became apparent that the alfalfa layer had had the effect of zapping the moisture from his body. John Compost was essentially mummified, his white papery flesh still stuck to the bones along his iliac crest and femur, which I brushed clean in soft strokes. Harsh body composting lesson number one: don't overdo the alfalfa layer.

Dr. J discovered something interesting as she uncovered his head and the top of his right shoulder, the only

body parts not covered in the alfalfa. Heavy spring rains had trickled down from the top of the hill and underneath the tarp, soaking that area. Here, far from being mummified, the bones were clean, dark—no flesh to be found. In fact, on his sternum were the beginnings of Swiss cheese-like holes, where even bone had begun to decompose.

Despite that encouraging discovery, John Compost was far from transformed into rich, dark soil, as Katrina had hoped. John had been encased in that mound for five whole months, and there he was, still hanging out, mummified. Livestock composting of a full-grown steer can take as little as four weeks when mechanical aeration is involved. Offal from a butchery only takes five days. Human composting had a long way to go.

Dr. J was unfazed. “You learn a little bit each time,” she shrugged, and signaled us to begin covering John up again (after adding more water and dismantling the ill-fated alfalfa layer).

The experiments being done at FOREST recall Italian anatomy professor Lodovico Brunetti’s attempts in the late 1800s to create the first modern cremation machine. Brunetti’s methods were very on-brand for the Industrial Era, employing what scholar Thomas Laquer called an “austere technological modernism.”

Brunetti presided over multiple failed experiments, but those experiments represented “the beginning of a new era

in the history of the dead body.” After all, industrialized cremation machines are today the dominant mode of body disposal in almost every developed country.

The first corpse that Brunetti cremated was the body of a thirty-five-year-old woman placed in a brick furnace. The experiment was not unsuccessful, as the furnace did reduce her body down to five and a half pounds of bone chunks. But the method took too long for the professor’s satisfaction—four hours.

Brunetti thought it might expedite the process to chop up the body pre-cremation. Corpse number two, a forty-five-year-old man, went into the same brick furnace in three layers: level one for limbs, level two for the head, chest, and pelvis, and level three for organs and other viscera. The cremation still took a frustrating four hours to complete, but now the bones that remained weighed only two and a half pounds.

Katrina has considered this tactic. Multiple composting experts have told her, “If you really want to compost efficiently you’d chop up the body first.” The unsettling suggestions from experts don’t stop there. There are those who say she must add manure to the pile, and one avid composter who sent her an email reading, “Dear Ms. Spade, I am interested in your project. I have had excellent luck with my compost pile because I use leftover urine from hospitals. Have you considered that?”

"Did you write back?" I asked.

"I had to politely decline on the hospital urine. Is it a good source of nitrogen? Yes. Is it fast? Probably yes. Am I going to put a body into it? No."

Brunetti, undeterred by the thought of pulling the dead apart, decided in his next round of experiments to go hotter, putting various body parts into an altogether different furnace that produced coal gas, a substance used for electricity in the nineteenth century. This furnace was several hundred degrees hotter and took two hours longer (six hours total). But the end result was bones that were completely carbonized, zapped of all organic material. All traces of what made the human a human, including the DNA—though the professor would not have understood this at the time—were gone.

In his 1884 paper, Brunetti wrote of cremation:

It is a solemn, magnificent moment, which has a sacred, majestic quality. The combustion of a corpse always produced in me a very strong emotional arousal. As long as its shape is still human, and the flesh is burning, one is overcome by wonder, admiration; when the form has vanished, and all the body is charred, sadness takes over.

By 1873, Brunetti was ready to debut the results of his experiments at the Vienna World Exhibition. His booth,

#54 in the Italian section, featured various glass cubes containing the results of his experiments—bones and flesh in varying degrees of disintegration.

Brunetti's cremation technology represented a chance for society to skip over decomposition and incinerate the body down to its inorganic material. He hoped to industrialize the process, to do it as quickly as possible with the efficiency of a factory line. According to Laquer, modern cremation, as Brunetti saw it, "was a problem for science and technology." The message was clear: nature, left to her own devices, was far too sloppy and inept, taking months to do what a 2,000-degree blast furnace could do in mere hours. A sign at Brunetti's booth at the Vienna exhibit read "*Vermibus erepti—Puro consumimur igni,*" or "Saved from the worms, consumed by the purifying flame."

Almost 150 years later, both Katrina and I would disagree with Brunetti that only flames can purify. The poet Walt Whitman spoke of soil and earth as the great transformers, accepting "the leavings" of men and producing "such divine materials." Whitman marveled at the ability of the earth to reabsorb the corrupt, the vile, the diseased, and produce new, pristine life. There is no reason to zap away your organic material with gas or flame when there is good to be done with "the leavings" of your mortal form.

Dr. J headed back down to the tent in the parking

area to upload data from an electronic logger which had been placed on the chest of John Compost to record the temperature spikes his body experienced while in the mound. That left Katrina and me to start uncovering the second mound, containing June Compost. The seventy-eight-year-old woman was emaciated by disease at the time of her death. Her mound consisted of pure woodchips and was at the bottom of the hill, uncovered, in the shade.

As we got deeper into the pile, the dirt exposed larval beetles and grubs. The soil inside the pile was abundant and dark—compost is often referred to as “black gold.” But the presence of the insects was not ideal, as it meant there was still something inside the pile serving as a nutrition source, a feast to keep these creatures occupied. Then I hit June’s femur, covered in a thick white leftover of decomposed fat, the consistency of Greek yogurt (apologies, Greek yogurt fans). As we uncovered more, we found the woman at the very end stages of decomposition, mostly down to bone.

June Compost’s problems were the opposite of John Compost’s. There was enough moisture (which is why she had been successfully taken down to bone), but without enough nitrogen the temperature in her mound never got high enough to reconfigure her bones to soil.

Neither John nor June Compost had been a success.

But this was only the beginning of Katrina’s experiments. More bodies will come into the FOREST facility to be composted. At Wake Forest University, a law professor named Tanya Marsh is assigning her cemetery law students to comb through state laws to discover how to legalize recomposition facilities in all fifty states. At Western Washington University, a soil scientist and composting expert, Lynne Carpenter-Boggs, will begin experiments with human-sized animals (small cows, large dogs, shorn sheep, the occasional pig—all predeceased). There are already studies underway on what the composting process does to mercury amalgam fillings in teeth, whose toxic release into the air is one of the biggest environmental concerns about cremation.

“Lynne called me on the phone the other day to talk about the teeth study,” Katrina said, “and casually mentioned, ‘I dug my own grave and slept in it last night.’ She’s a pretty serious practicing Sufi.”

“Damn, dug her own grave and slept in it,” I replied.

“Yeah, death is part of her spiritual practice. She’s *much* more than just a lover of livestock composting.”

It is worth noting that the main players in the recomposition project are women—scientists, anthropologists, lawyers, architects. Educated women, who have the privilege to devote their efforts to righting a wrong. They’ve given prominent space in their professional careers to

changing the current system of death. Katrina noted that “humans are so focused on preventing aging and decay—it’s become an obsession. And for those who have been socialized female, that pressure is relentless. So decomposition becomes a radical act. It’s a way to say, ‘I love and accept myself.’”

I agree with Katrina here. Women’s bodies are so often under the purview of men, whether it’s our reproductive organs, our sexuality, our weight, our manner of dress. There is a freedom found in decomposition, a body rendered messy, chaotic, and wild. I relish this image when visualizing what will become of my future corpse.

When deathcare became an industry in the early twentieth century, there was a seismic shift in who was responsible for the dead. Caring for the corpse went from visceral, primeval work performed by women to a “profession,” an “art,” and even a “science,” performed by well-paid men. The corpse, with all its physical and emotional messiness, was taken from women. It was made neat and clean, and placed in its casket on a pedestal, always just out of our grasp.

Maybe a process like recomposition is our attempt to reclaim our corpses. Maybe we wish to become soil for a willow tree, a rosebush, a pine—destined in death to both rot and nourish on our own terms.

SPAIN

BARCELONA

The American funeral home exhibits a suspiciously uniform aesthetic: squat midcentury brick, velvet-curtained interior, uneasy aroma of Glade plug-ins (covering over the antiseptic smells from the body preparation room). By contrast, the Altima funeral home, in Barcelona, is Google-headquarters-meets-Church-of-Scientology. It is minimalist, hypermodern, projecting the potential for cultlike activity. Its three stories feature floors, walls, and ceilings of elegant white stone. Wide balconies allow you to step outside and overlook the gardens. Not parking lots, *gardens*. One wall is floor-to-ceiling glass, exposing a panorama of the city stretching from the mountains to the sea. Stop by the espresso bar to take advantage of the free Wi-Fi.

The Mediterranean sun streamed through the window and reflected off the white floor. Blinded by the glare, I found myself in a perpetual cross-eyed squint during conversations with Altima’s attractive, well-groomed employees, including Josep, the dashing man in a suit who ran the whole operation.