

FOREWORD BY ABRAHAM VERGHESE

WHEN
BREATH
BECOMES



air

PAUL KALANITHI

When Breath Becomes Air

Paul Kalanithi

Random House Publishing Group (2016)

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EVENTS DESCRIBED ARE BASED on Dr. Kalanithi's memory of real-world situations. However, the names of all patients discussed in this book—if given at all—have been changed. In addition, in each of the medical cases described, identifying details—such as patients' ages, genders, ethnicities, professions, familial relationships, places of residence, medical histories, and/or diagnoses—have been changed. With one exception, the names of Dr. Kalanithi's colleagues, friends, and treating physicians have also been changed. Any resemblance to persons living or dead resulting from changes to names or identifying details is entirely coincidental and unintentional.

You that seek what life is in death,
Now find it air that once was breath.
New names unknown, old names gone:
Till time end bodies, but souls none.
 Reader! then make time, while you be,
 But steps to your eternity.

—Baron Brooke Fulke Greville, “Caelica 83”

FOREWORD

Abraham Verghese

IT OCCURS TO ME, as I write this, that the foreword to this book might be better thought of as an afterword. Because when it comes to Paul Kalanithi, all sense of time is turned on its head. To begin with—or, maybe, to end with—I got to know Paul only after his death. (Bear with me.) I came to know him most intimately when he'd ceased to be.

I met him one memorable afternoon at Stanford in early February 2014. He'd just published an op-ed titled "How Long Have I Got Left?" in *The New York Times*, an essay that would elicit an overwhelming response, an outpouring from readers. In the ensuing days, it spread exponentially. (I'm an infectious diseases specialist, so please forgive me for not using the word *viral* as a metaphor.) In the aftermath of that, he'd asked to come see me, to chat, to get advice about literary agents, editors, the publishing process—he had a desire to write a book, *this* book, the one you are now holding in your hands. I recall the sun filtering through the magnolia tree outside my office and lighting this scene: Paul seated before me, his beautiful hands exceedingly still, his prophet's beard full, those dark eyes taking the measure of me. In my memory, the picture has a Vermeer-like quality, a camera obscura sharpness. I remember thinking, *You must remember this*, because what was falling on my retina was precious. And because, in the context of Paul's diagnosis, I became aware of not just his mortality but my own.

We talked about a lot of things that afternoon. He was a neurosurgical chief resident. We had probably crossed paths at some point, but we hadn't shared a patient that we could recall. He told me he had been an English and biology major as an undergraduate at Stanford, and then stayed on for a master's in English literature. We talked about his lifelong love of writing and reading. I was struck by how easily he could have been an English professor—and, indeed, he had seemed to be headed down that path at one point in his life. But then, just like his namesake on the road to Damascus, he felt the calling. He became a physician instead, but one who always dreamed of coming back to literature in some form. A book, perhaps. One day. He thought he had time, and why not? And yet now

time was the very thing he had so little of.

I remember his wry, gentle smile, a hint of mischief there, even though his face was gaunt and haggard. He'd been through the wringer with this cancer but a new biological therapy had produced a good response, allowing him to look ahead a bit. He said during medical school he'd assumed that he would become a psychiatrist, only to fall in love with neurosurgery. It was much more than a falling in love with the intricacies of the brain, much more than the satisfaction of training his hands to accomplish amazing feats—it was a love and empathy for those who suffered, for what they endured and what he might bring to bear. I don't think he told me this as much as I had heard about this quality of his from students of mine who were his acolytes: his fierce belief in the moral dimension of his job. And then we talked about his dying.

After that meeting, we kept in touch by email, but never saw each other again. It was not just that I disappeared into my own world of deadlines and responsibilities but also my strong sense that the burden was on me to be respectful of his time. It was up to Paul if he wanted to see me. I felt that the last thing he needed was the obligation to service a new friendship. I thought about him a lot, though, and about his wife. I wanted to ask him if he was writing. Was he finding the time? For years, as a busy physician, I'd struggled to find the time to write. I wanted to tell him that a famous writer, commiserating about this eternal problem, once said to me, "If I were a neurosurgeon and I announced that I had to leave my guests to go in for an emergency craniotomy, no one would say a word. But if I said I needed to leave the guests in the living room to go upstairs to *write*..." I wondered if Paul would have found this funny. After all, *he* could actually say he was going to do a craniotomy! It was plausible! And then he could go write instead.

While Paul was writing this book, he published a short, remarkable essay in *Stanford Medicine*, in an issue that was devoted to the idea of time. I had an essay in the same issue, my piece juxtaposed to his, though I learned of his contribution only when the magazine was in my hands. In reading his words, I had a second, deeper glimpse of something of which there had been a hint in the *New York Times* essay: Paul's writing was simply stunning. He could have been writing about anything, and it would have been just as powerful. But he *wasn't* writing about anything—he was writing about time and what it meant to him now, in the context of his illness. Which made it all so incredibly poignant.

But here's the thing I must come back to: *the prose was unforgettable*. Out of his pen he was spinning gold.

I reread Paul's piece again and again, trying to understand what he had brought about. First, it was musical. It had echoes of Galway Kinnell, almost a prose poem. ("If one day it happens / you find yourself with someone you love / in a café at one end /of the Pont Mirabeau, at the zinc bar / where wine stands in upward opening glasses..." to quote a Kinnell line, from a poem I once heard him recite in a bookstore in Iowa City, never looking down at the paper.) But it also had a taste of something else, something from an antique land, from a time before zinc bars. It finally came to me a few days later when I picked up his essay yet again: Paul's writing was reminiscent of Thomas Browne's. Browne had written *Religio Medici* in the prose of 1642, with all its archaic spellings and speech. As a young physician, I was obsessed with that book, kept at it like a farmer trying to drain a bog that his father before him had failed to drain. It was a futile task, and yet I was desperate to learn its secrets, tossing it aside in frustration, then picking it up again, unsure that it had anything for me but, in sounding the words, sensing that it did. I felt that I lacked some critical receptor for the letters to sing, to impart their meaning. It remained opaque, no matter how hard I tried.

Why, you ask? Why did I persevere? Who cares about *Religio Medici*?

Well, my hero William Osler cared, that's who. Osler was the father of modern medicine, a man who died in 1919. He had loved the book. He kept it on his nightstand. He'd asked to be buried with a copy of *Religio Medici*. For the life of me, I didn't get what Osler saw in it. After many tries—and after some decades—the book finally revealed itself to me. (It helped that a newer edition had modern spellings.) The trick, I discovered, was to read it aloud, which made the cadence inescapable: "We carry with us the wonders, we seek without us: There is all Africa, and her prodigies in us; we are that bold and adventurous piece of nature, which he that studies, wisely learns in a compendium, what others labour at in a divided piece and endless volume." When you come to the last paragraph of Paul's book, read it aloud and you will hear that same long line, the cadence you think you can tap your feet to...but as with Browne, you will be just off. Paul, it occurred to me, was Browne redux. (Or given that forward time is our illusion, perhaps it's that Browne was Kalanithi redux. Yes, it's head-spinning stuff.)

And then Paul died. I attended his memorial in the Stanford church, a gorgeous space where I often go when it is empty to sit and admire the light, the silence, and where I always find renewal. It was packed for the service. I sat off to one side, listening to a series of moving and sometimes

raucous stories from his closest friends, his pastor, and his brother. Yes, Paul was gone, but strangely, I felt I was coming to know him, beyond that visit in my office, beyond the few essays he'd written. He was taking form in those tales being told in the Stanford Memorial Church, its soaring cathedral dome a fitting space in which to remember this man whose body was now in the earth but who nevertheless was so palpably *alive*. He took form in the shape of his lovely wife and baby daughter, his grieving parents and siblings, in the faces of the legions of friends, colleagues, and former patients who filled that space; he was there at the reception later, outdoors in a setting where so many came together. I saw faces looking calm, smiling, as if they had witnessed something profoundly beautiful in the church. Perhaps my face was like that, too: we had found meaning in the ritual of a service, in the ritual of eulogizing, in the shared tears. There was further meaning residing in this reception where we slaked our thirst, fed our bodies, and talked with complete strangers to whom we were intimately connected through Paul.

But it was only when I received the pages that you now hold in your hands, two months after Paul died, that I felt I had finally come to know him, to know him better than if I had been blessed to call him a friend. After reading the book you are about to read, I confess I felt inadequate: there was an honesty, a truth in the writing that took my breath away.

Be ready. Be seated. See what courage sounds like. See how brave it is to reveal yourself in this way. But above all, see what it is to still live, to profoundly influence the lives of others after you are gone, by your words. In a world of asynchronous communication, where we are so often buried in our screens, our gaze rooted to the rectangular objects buzzing in our hands, our attention consumed by ephemera, stop and experience this dialogue with my young departed colleague, now ageless and extant in memory. Listen to Paul. In the silences between his words, listen to what you have to say back. Therein lies his message. I got it. I hope you experience it, too. It is a gift. Let me not stand between you and Paul.

PROLOGUE

Webster was much possessed by death
And saw the skull beneath the skin;
And breastless creatures under ground
Leaned backward with a lipless grin.

—T. S. Eliot, “Whispers of Immortality”

I FLIPPED THROUGH THE CT scan images, the diagnosis obvious: the lungs were matted with innumerable tumors, the spine deformed, a full lobe of the liver obliterated. Cancer, widely disseminated. I was a neurosurgical resident entering my final year of training. Over the last six years, I’d examined scores of such scans, on the off chance that some procedure might benefit the patient. But this scan was different: it was my own.

I wasn’t in the radiology suite, wearing my scrubs and white coat. I was dressed in a patient’s gown, tethered to an IV pole, using the computer the nurse had left in my hospital room, with my wife, Lucy, an internist, at my side. I went through each sequence again: the lung window, the bone window, the liver window, scrolling from top to bottom, then left to right, then front to back, just as I had been trained to do, as if I might find something that would change the diagnosis.

We lay together on the hospital bed.

Lucy, quietly, as if reading from a script: “Do you think there’s any possibility that it’s something else?”

“No,” I said.

We held each other tightly, like young lovers. In the past year we’d both suspected, but refused to believe, or even discuss, that a cancer was growing inside me.

About six months before, I had started losing weight and having ferocious back pain. When I dressed in the morning, my belt cinched one, then two notches tighter. I went to see my primary care doctor, an old classmate from Stanford. Her sister had died suddenly as a neurosurgery intern, after contracting a virulent infection, and so she’d taken a maternal watch on my health. When I arrived, however, I found a different doctor in her office—my classmate was on maternity leave.

Dressed in a thin blue gown on a cold examining table, I described the symptoms to her. “Of course,” I said, “if this were a boards exam question—thirty-five-year-old with unexplained weight loss and new-onset

back pain—the obvious answer would be (C) cancer. But maybe it’s just that I’m working too hard. I don’t know. I’d like to get an MRI to be sure.”

“I think we should get X-rays first,” she said. MRIs for back pain are expensive, and unnecessary imaging had lately become a major national point of cost-saving emphasis. But the value of a scan also depends on what you are looking for: X-rays are largely useless for cancer. Still, for many docs, ordering an MRI at this early stage is apostasy. She continued: “X-rays aren’t perfectly sensitive, but it makes sense to start there.”

“How about we get flexion-extension X-rays, then—maybe the more realistic diagnosis here is isthmic spondylolisthesis?”

From the reflection in the wall mirror, I could see her googling it.

“It’s a pars fracture affecting up to five percent of people and a frequent cause of back pain in the young.”

“Okay, I’ll order them, then.”

“Thanks,” I said.

Why was I so authoritative in a surgeon’s coat but so meek in a patient’s gown? The truth was, I knew more about back pain than she did—half of my training as a neurosurgeon had involved disorders of the spine. But maybe a spondy was more likely. It did affect a significant percent of young adults—and cancer in the spine in your thirties? The odds of that couldn’t be more than one in ten thousand. Even if it were one hundred times more common than that, it’d still be less common than a spondy. Maybe I was just freaking myself out.

The X-rays looked fine. We chalked the symptoms up to hard work and an aging body, scheduled a follow-up appointment, and I went back to finish my last case of the day. The weight loss slowed, and the back pain became tolerable. A healthy dose of ibuprofen got me through the day, and after all, there weren’t that many of these grueling, fourteen-hour days left. My journey from medical student to professor of neurosurgery was almost complete: after ten years of relentless training, I was determined to persevere for the next fifteen months, until residency ended. I had earned the respect of my seniors, won prestigious national awards, and was fielding job offers from several major universities. My program director at Stanford had recently sat me down and said, “Paul, I think you’ll be the number one candidate for any job you apply for. Just as an FYI: we’ll be starting a faculty search for someone like you here. No promises, of course, but it’s something you should consider.”

At age thirty-six, I had reached the mountaintop; I could see the Promised Land, from Gilead to Jericho to the Mediterranean Sea. I could

see a nice catamaran on that sea that Lucy, our hypothetical children, and I would take out on weekends. I could see the tension in my back unwinding as my work schedule eased and life became more manageable. I could see myself finally becoming the husband I'd promised to be.

Then, a few weeks later, I began having bouts of severe chest pain. Had I bumped into something at work? Cracked a rib somehow? Some nights, I'd wake up on soaked sheets, dripping sweat. My weight began dropping again, more rapidly now, from 175 to 145 pounds. I developed a persistent cough. Little doubt remained. One Saturday afternoon, Lucy and I were lying in the sun in Dolores Park in San Francisco, waiting to meet her sister. She glimpsed my phone screen, which displayed medical database search results: "frequency of cancers in thirty- to forty-year-olds."

"What?" she said. "I didn't realize you were actually worried about this."

I didn't respond. I didn't know what to say.

"Do you want to tell me about it?" she asked.

She was upset because she had been worried about it, too. She was upset because I wasn't talking to her about it. She was upset because I'd promised her one life, and given her another.

"Can you please tell me why you aren't confiding in me?" she asked.

I turned off my phone. "Let's get some ice cream," I said.

—

We were scheduled for a vacation the following week to visit some old college friends in New York. Maybe a good night's sleep and a few cocktails would help us reconnect a bit and decompress the pressure cooker of our marriage.

But Lucy had another plan. "I'm not coming to New York with you," she announced a few days before the trip. She was going to move out for a week; she wanted time to consider the state of our marriage. She spoke in even tones, which only heightened the vertigo I felt.

"What?" I said. "No."

"I love you so much, which is why this is so confusing," she said. "But I'm worried we want different things from our relationship. I feel like we're connected halfway. I don't want to learn about your worries by accident. When I talk to you about feeling isolated, you don't seem to think it's a problem. I need to do something different."

“Things are going to be okay,” I said. “It’s just residency.”

Were things really so bad? Neurosurgical training, among the most rigorous and demanding of all medical specialties, had surely put a strain on our marriage. There were so many nights when I came home late from work, after Lucy had gone to bed, and collapsed on the living room floor, exhausted, and so many mornings when I left for work in the early dark, before she’d awoken. But our careers were peaking now—most universities wanted both of us: me in neurosurgery, Lucy in internal medicine. We’d survived the most difficult part of our journey. Hadn’t we discussed this a dozen times? Didn’t she realize this was the worst possible time for her to blow things up? Didn’t she see that I had only one year left in residency, that I loved her, that we were so close to the life together we’d always wanted?

“If it were just residency, I could make it,” she said. “We’ve made it this far. But the problem is, what if it’s *not* just residency? Do you really think things will be better when you’re an academic neurosurgery attending?”

I offered to skip the trip, to be more open, to see the couples therapist Lucy had suggested a few months ago, but she insisted that she needed time—alone. At that point, the fuzziness of the confusion dissipated, leaving only a hard edge. Fine, I said. If she decided to leave, then I would assume the relationship was over. If it turned out that I had cancer, I wouldn’t tell her—she’d be free to live whatever life she chose.

Before leaving for New York, I snuck in a few medical appointments to rule out some common cancers in the young. (Testicular? No. Melanoma? No. Leukemia? No.) The neurosurgical service was busy, as always. Thursday night slipped into Friday morning as I was caught in the operating room for thirty-six hours straight, in a series of deeply complex cases: giant aneurysms, intracerebral arterial bypasses, arteriovenous malformations. I breathed a silent thanks when the attending came in, allowing me a few minutes to ease my back against a wall. The only time to get a chest X-ray was as I was leaving the hospital, on the way home before heading to the airport. I figured either I had cancer, in which case this might be the last time I would see my friends, or I didn’t, in which case there was no reason to cancel the trip.

I rushed home to grab my bags. Lucy drove me to the airport and told me she had scheduled us into couples therapy.

From the gate, I sent her a text message: “I wish you were here.”

A few minutes later, the response came back: “I love you. I will be

here when you get back.”

My back stiffened terribly during the flight, and by the time I made it to Grand Central to catch a train to my friends’ place upstate, my body was rippling with pain. Over the past few months, I’d had back spasms of varying ferocity, from simple ignorable pain, to pain that made me forsake speech to grind my teeth, to pain so severe I curled up on the floor, screaming. This pain was toward the more severe end of the spectrum. I lay down on a hard bench in the waiting area, feeling my back muscles contort, breathing to control the pain—the ibuprofen wasn’t touching this—and naming each muscle as it spasmed to stave off tears: erector spinae, rhomboid, latissimus, piriformis...

A security guard approached. “Sir, you can’t lie down here.”

“I’m sorry,” I said, gasping out the words. “Bad...back...spasms.”

“You still can’t lie down here.”

I’m sorry, but I’m dying from cancer.

The words lingered on my tongue—but what if I wasn’t? Maybe this was just what people with back pain live with. I knew a lot about back pain—its anatomy, its physiology, the different words patients used to describe different kinds of pain—but I didn’t know what it *felt* like. Maybe that’s all this was. Maybe. Or maybe I didn’t want the jinx. Maybe I just didn’t want to say the word *cancer* out loud.

I pulled myself up and hobbled to the platform.

It was late afternoon when I reached the house in Cold Spring, fifty miles north of Manhattan on the Hudson River, and was greeted by a dozen of my closest friends from years past, their cheers of welcome mixed with the cacophony of young, happy children. Hugs ensued, and an ice-cold dark and stormy made its way to my hand.

“No Lucy?”

“Sudden work thing,” I said. “Very last-minute.”

“Oh, what a bummer!”

“Say, do you mind if I put my bags down and rest a bit?”

I had hoped a few days out of the OR, with adequate sleep, rest, and relaxation—in short, a taste of a normal life—would bring my symptoms back into the normal spectrum for back pain and fatigue. But after a day or two, it was clear there would be no reprieve.

I slept through breakfasts and shambled to the lunch table to stare at ample plates of cassoulet and crab legs that I couldn’t bring myself to eat. By dinner, I was exhausted, ready for bed again. Sometimes I read to the