

Preface

Ray Kurzweil

In 1955, when I was seven, I recall my grandfather describing his first return trip to Europe, seventeen years after he had fled Hitler in 1938. He had been given the opportunity to handle, with his own hands, Leonardo da Vinci's original notebooks containing descriptions and illustrations of his inventions. He described this experience in reverential terms. Yet these were not documents written by God, but by a human. This was the religion, if you will, I grew up with: the power of human ideas to change the world. This philosophy was personalized: you, Ray, can find those ideas.

To this day, I continue to be convinced of this basic philosophy. No matter what quandaries we face—business problems, health issues, relationship difficulties, the great social and cultural challenges of our time—there exists an idea that will enable us to prevail. We can and must find that idea. And when we find it, we need to implement it.

My mother's mother's mother Regina Stern followed this philosophy. In 1868 she saw girls did not have the opportunity for schooling past ninth grade, so she and her family started the *Stern Schule*, the first school

in Europe that provided higher education for girls, going from kindergarten to fourteenth grade (high school and the first two years of college). The idea was met with fierce opposition, and my great-grandmother lectured throughout Europe on why girls should be educated and how to go about it. Her school became influential on the education of girls and women. Her daughter, my grandmother, became an exemplar of her mother's philosophy and became the first woman in Europe to be awarded a PhD in chemistry. She took over the school, and between the two women they ran it for seventy years before fleeing Vienna in the summer of 1938, after Hitler annexed Austria. In 1948, she wrote an autobiography and history of the school titled *One Life Is Not Enough*, presaging my interest in life extension. When I was five she showed me the mechanical typewriter she wrote her book on, which inspired me to become an inventor, but that's another story.

Over the last thirty years, I have come to appreciate an important meta-idea: that the power of ideas to transform the world is itself accelerating. Although people readily agree with this observation when it is simply stated, it is much harder to appreciate its profound implications. Within the next several decades, we will have the opportunity to apply ideas to conquer age-old problems—and introduce a few new ones along the way.

This, then, is Danielle's philosophy. If Danielle's exploits seem remarkable, I would point out that each of her accomplishments are achievements that a person, even a child, can do today. Indeed, young people are already changing the world. The major tech companies—Microsoft, Apple, Google, which together are worth almost two trillion dollars and have indeed transformed the world—were started by students barely over twenty. We see high school kids creating transformative ideas, such as early noninvasive tests for cancer, new approaches to treating Alzheimer's disease, and techniques for reverse-engineering the brains of animals.

Is there a Danielle in the world today? From one perspective, anyone can be a Danielle, at least in part, by having the courage to question the assumptions that limit human imagination to solve problems. The companion book, *How You Can Be a Danielle*, provides guidance for would-be Danielles.

How about a person with the extremely broad range of Danielle's courage and talent? She may not exist, at least not yet. This novel is a thought experiment as to what would happen if there were a Danielle.

However, as I articulate in my nonfiction books, in the decades ahead we are going to merge with the intelligent technology we are creating. This novel explores the impact a single Danielle can have on the world. Now imagine if we all became Danielles. That will happen by 2045.

A handwritten signature in blue ink, appearing to read 'Ray Kurzweil', with a stylized, cursive script.

Ray Kurzweil

AGE ZERO AND ONE:
MAYBE SHE'S DIFFERENT



There is one thing stronger than all the armies in the world, and that is an idea whose time has come.

—Victor Hugo

Never give in. Never give in. Never, never, never, never—in nothing, great or small, large or petty—never give in, except to convictions of honour and good sense.

—Winston Churchill

I remember like it was yesterday. Danielle and my dialogue with Colonel Qaddafi. Her challenge to the Madrassa schools. Her confrontation with the Food and Drug Administration. Her arrest. Her taking on the Red Army. The death of her collaborator and soul mate. But I'm getting ahead of myself. Let's start at the beginning.



Hi, I'm Claire. Let me tell you how Danielle came to be my sister. I was six years old and school had ended at two in the afternoon. I was

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sitting on the dirt floor in the factory—the only afterschool program I ever knew—next to Mum with her sewing machine, playing with my favorite and pretty much only possessions, *Alice's Adventures in Wonderland*,¹ and my guitar. My book was in English, and everyone seemed quite impressed I could read it by myself. My guitar was a small square white box with a round hole. It must have been a wooden crayon box once because it still had the telltale scribbings. Someone had glued on a fingerboard, head, and strings, and it worked surprisingly well. I found it discarded in the factory's trash, and Mum's musician friends fixed the dents and polished out the scratches. It was missing a string and I was still hoping to find it.

I often played and sang for the women in the factory as they sewed button-up blouses and long skirts, which I imagined swaying on the hips of their future owners. Most of the women started smiling whenever I sang for them. I like to think it made their work less dull. Some of them hummed along. Others tapped their feet. I would look out over my "audience" and imagine I was singing in a huge concert hall. In front of me, rows of women at sewing machines, dangling electrical wires, and colorful garments of bold red, blue, green, and white hanging from clothes lines, stretched as far as I could see.

How I loved my music, even back then.

I remember Mum sewing a white dress with blue thread that day. She told me how proud she was of the new song I was playing on my guitar. I can't remember the tune, I had just made it up. Everyone was grinning by the time I finished singing. Several women even paused in their sewing to applaud.

Suddenly the building shook and Mum's cup of coffee fell on me. I cried out as the liquid burned my face. The cup went flying against the sewing machine stand where it smashed into a million pieces. Then the building exploded, the Earth shook, and the ground opened up. I remember thinking that I was like Alice. I found myself falling down the rabbit hole, and I ended up in a totally dark place filled with obstacles—stones, sharp needles, metal gears, buttons flying like bullets, wires, dripping oil, chunks of the walls and ceilings. When I tell this story people assume I must have been terrified, and I suppose I was, but the

whole thing was so strange and happened so fast I felt like I'd woken up in my book.

"Mum ... where are you ...? Mum ...?"

No one responded. I didn't panic. I assumed this was some kind of game where I was supposed to find her. I felt around in the dark, pushing things out of my way, at least those objects that would yield to the strength of a six-year-old. I moved from one dark space to another, expecting to see a hookah-smoking caterpillar at any moment.

I didn't realize I was being watched by some man named Richard who'd come to Haiti to help start a school, but quickly shifted to helping with the earthquake rescue operation.² He could see me as a blurry image using a special radar that was looking for survivors. Later, he said I "looked like a fetal sonogram." People dismissed the moving image as a trapped dog under the rubble. But as the story goes, Richard disagreed. "No, it's not moving like an animal. That's a small person—probably all alone. We're going to find that child ... and if she has no one and nowhere to go ... we'll adopt her." People kind of doubt the adoption prediction part of the story now, but I'm sure it's true.

I fell asleep in my Wonderland using ripped clothes as a mattress. There was a large chunk of cement next to me which was a good thing since that's what probably prevented me from being crushed. I was woken by the frantic sounds of local volunteers moving boulders and bricks with their bare hands. When they finally pulled me from the wreckage, people just stared at me in amazement like I must be the Haitian Alice—except I could see this wasn't Wonderland. In the photo I have of my rescue, I'm covered in black soot, wearing shredded clothes, still holding onto my guitar.

"Where's Mum?" I asked.

"Well, let's find out," Richard said. "What's your name?"

"Claire Pierre-Louis."

"That's a lovely name," he told me. I remember him wearing a white T-shirt, which seemed to shine brightly in the midday sun and was only smeared with a few streaks of dirt compared to everything else, which was covered with grime. I recognized the entrance to the factory, which looked like a big barn door, but the rest of the factory was gone.

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I find it painful now to think about the following hours—the waiting, the searching, the injured and dazed survivors, seeing all the people who didn't make it.

Finally, a somber Richard answered my question. "Your mum is sitting on your shoulder." I was perplexed at first, but I gradually understood what he meant. I looked down for what seemed like a lifetime, looked at my Mum sitting on my shoulder, and then gave Richard a hug. My mum sits there still.

A few days later, I was still in shock, but I understood Richard's proposal to me. "How about I be your Dad now?"

"Wow, I always wanted a Dad," I replied.

"And Sharon, my wife, could be another Mom. We'll take care of you while you take care of your Mum sitting on your shoulder."

I felt good about this—I figured the more Mums the merrier. I was concerned that Mum on my shoulder wouldn't like it, but she said that she did.

However, some of the local men I knew were not so enthusiastic. "*Mèsi pou ede ou, men timoun nan rete isit la ...*" *Thanks for your help, but the child stays here. We don't want anybody stealing our children.*

I looked around and saw one of the sewing machine stands lying on its side. It still had three of its legs so I set it straight and climbed up on it avoiding the big gash in the middle.

"But it's what I want!" I blurted out without even thinking. I felt like I was one of those grown-ups I had seen on the factory TV giving a speech, like that guy Mum told me was the most important man in America. "I love everyone. My heart will always be here. And I will be back."

Everyone was shocked at how mature I sounded, including me.

That's how I became Claire Pierre-Louis Calico at the age of six.



We lived in Pasadena, a suburb of Los Angeles, in a wood and glass house that smelled like onions, or at least that's what I can remember. Mom always cooked them in everything. To me, that became the smell

of home. And home was also the sight of geraniums inside and outside the house. I loved those flowers. I love them still.

Dad explained to everyone that the house was built by “a guy named Frank Lloyd Wright.”³ He’s my favorite architect now. There was a winding stream that you could see from the huge window in the living room. Well, it was a fake stream, but I didn’t realize that at the time. It was all rather different from the Cap-Haïtien tenement I was used to. Dad always says a water view is his one requirement for a home.

The one regret he had about the house is that with all the glass walls there wasn’t enough wall space for Mom’s photos of the family and his art collection, which includes Grandma Hannah’s lovely flower paintings.

I had my own room which I decorated with posters of Haiti. There was a picture of a little girl who looked like me writing in her school book using a wooden bench as a desk, a picture of five women carrying baskets full of fruit on their heads, a man wading in the water with flowers of every color by the river bank. Everyone was smiling.

I felt lonely in this big room—I was used to sharing a bed with Mum in a room with three other families. Mum on my shoulder still shared my bed, but she didn’t take up as much space as she used to. I enjoyed talking to her each night telling her about my day, but I missed the way her fingers would stroke my forehead and how her body would make the bed sag toward the middle. Instead of feeling lonely, I thought I should be praying to God, thanking him for rescuing me, but Mum said she would take care of that.



Danielle came along the biological way two years later when I was eight. I remember Mom, Dad, and me rushing to the hospital at one in the morning. Mom just put on the fancy black coat she wore to parties over her flannel nightgown. Dad seemed to be ready for this moment and was all dressed and holding the labor bag. I threw my gym outfit on over my pajamas, which looked ridiculous.

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When we got to the hospital, I was left in a huge white waiting room with a nurse's assistant. I thought I would go crazy waiting for what I figured would be a long night. I counted the number of large white tiles—there were eight rows of six. I counted them again and again. I timed myself to see how much time I could use up this way, but it was only two minutes for each scan of the forty-eight tiles.

But Danielle, who never hesitated to move ahead when she decided to do something, popped out before I had counted the tiles a hundred times. I was hurried into a room and immediately fell in love.

She was swaddled in a floral blanket and had a full head of dark hair. Mom told me that a newborn's expressions are not intentional, but I could have sworn that her beautiful "o" shaped mouth was telling me how amazing she thought the world was. There was not a whimper or a cry. I remember imagining her as a wise old woman, patiently looking out at the world.



Danielle's precociousness was clear from the get-go.

I remember when she was three months old, she played a looking game with me, her own invention. I'd look at her and she'd quickly look away. Then when I looked away, she would look at me, but when I tried to catch her she'd turn away again. She invariably won, catching me glancing at her. Each time that happened, she broke out in a big smile as if to say, *Gotcha*.

By six months, she had her favorite dolls to whom she was fiercely loyal. She would line them up as if they were her students. Carousels and busy boxes held no interest for her, or, I should say, they interested her for a few minutes and then were cast aside forever.

She loved to play with books of any shape and description. She often sat in the middle of her room on the floor turning the pages, making exaggerated reactions like a mime. Apparently she was mimicking the responses she'd seen Mom, Dad, and me make while reading.



By fifteen months, her book collection had expanded with those stolen from around the house, including some grown-up volumes that were larger than she was. I would try to look over her shoulder to see if there was any correlation between her reactions and what was actually on the page she was looking at, but she would close the book when I

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came around as if I were trying to sneak a peek at her personal diary.

She almost never cried, but expressed her displeasure by making a mad face. She kept looking through books voraciously and doing her pretend reading, imitating adult reactions, and I kept trying to see exactly what she was reading. This, too, became a game. Once she suddenly turned the book around as if to say, *Okay, nosey, here!* The book was upside down. I wonder to this day if she did that to throw me off.

"Maybe, she's ... different," I heard Mom say to Dad with a furrowed brow one night after dinner. "She doesn't even talk yet." They didn't know I was behind the door that led from the kitchen to the mess room, which is where I always hid when I wanted to listen to them.

"Oh, she's different all right," Dad replied. "But I wouldn't fret about her talking."

"And walking?" Mom added.

"She'll talk when she has something to say," Dad replied.

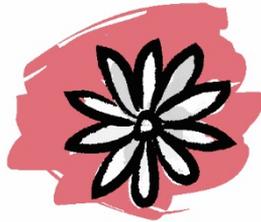
"And walk when she has someplace to go?" Mom added.

"Exactly."



Danielle liked to fall asleep by curling herself into a tight ball on my lap. I enjoyed this, but it presented a bit of a dilemma if I wanted to do something else. Many nights, I just fell asleep myself with her lying there.

AGE TWO:
DANIELLE IN WONDERLAND



Danielle still didn't talk or walk, although she could crawl faster than most two-year-olds could walk. Nonetheless, it interfered with her social life. Other two-year-olds didn't want to make friends with a girl who still acted like a baby.

Mom found it challenging to find other kids to attend her second birthday party, something that Danielle seemed to be aware of. Mom invited three other kids, cousin James who was one, and the two-year-old twins Rachel and Ryann from next door. Mom put up streamers and balloons, but was not smiling. I remember finding it a bit embarrassing as there wasn't much of a party spirit. Danielle didn't smile either. I tried to engage the kids in games like pin the tail on the donkey, but it was not my most successful party.



"I've asked Dr. Sonis to come over tomorrow," Mom said to Dad that evening in one of their many conversations about Danielle's "differences."

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“Well that won’t hurt, but I really don’t think it’s necessary,” Dad replied. “Anyway, you’re the child psychologist.”

“I can’t evaluate my own child,” Mom said. “Maybe I’m too close to the situation. I just don’t know what we should be doing with her.”

Most evenings, we ate dinner in the dining room by a panoramic window that overlooked the stream. I was usually assigned to help Mom set the table. Mom took pride in having everything in place before we sat down to eat. My specialty was folding the cloth napkins to look like little mountains. I kind of took these dinners for granted back then, but they’re among my fondest memories now.

Dr. Sonis made his visit. I could swear there was a smirk on Danielle’s face as she was introduced to him. She quickly pressed him into service, sitting three of her dolls on his knee, putting aprons on them and serving them tea. I was invited to join the party and showed off my napkin folding skills.

The next evening at dinner, I talked with Mom and Dad about *Alice’s Adventures in Wonderland*, which was still my favorite book. “The Caterpillar⁴ is a really interesting character,” I pointed out.

“He gives Alice a hard time, don’t you think?” Dad chimed in.

“He gives everyone a hard time,” I replied.

Mom smiled at my reply. She once told me that she loved listening to conversations, because it gave her a gauge of how children were developing.

Dad settled in to enjoy our debate. “But his rudeness seems mostly directed at Alice.”

“The Caterpillar didn’t understand Alice very well when they first met,” I replied, “which explains why he was so rude to her.”

“Oh, I wouldn’t say that,” Danielle suddenly said. “He’s the know-it-all. Kind of like you, Mom, and Dad. He always seems to say what’s coming.”

Mom dropped the wooden bowl of berries she was about to serve. A blizzard of blueberries bounced across the table. Most of them ended up in Danielle’s and my laps.

Dad gave Mom a look like, *What did I tell you?* and calmly asked Danielle, “So how come he always knows what’s going to happen?”

“Cuz he’s the one who makes it happen,” Danielle declared.

Mom’s eyes sparkled with fascination. She still stood there with her mouth agape. No one cleaned up the blueberries.

“What makes you say the Caterpillar is like Mom and Dad?” I asked.

“He’s always trying to teach Alice a lesson,” Danielle replied. “Like he gives her the mushroom to make her bigger, and she learns that there is more to growing up than just being big.”

“Wow, that’s quite a message,” I said.

Danielle replied, “Well, it’s the Cheshire Cat⁵ who actually explains it to Alice, but it’s the Caterpillar’s lesson.”

Composing herself, Mom asked, “What about the White Rabbit⁶? Do you like him?”

“Not really,” Danielle answered. “He acts kind of like a big shot. He’s not very nice to the people who work for him, but he’s kind of fake-nice to the even bigger shots, like the Queen of Hearts.”⁷

“Good point, darling,” Mom replied. “It’s not very nice to be fake-nice.”

“Yeah,” Danielle said. “I read about a guy who called that obsequious.”

Tears streamed from Mom’s eyes, I couldn’t tell for sure if she was happy or sad, but I think it was both.

“What guy?” I asked.

“Oh, I think his name is Ronald. It was in a book called *Wonderland Revisited*.”

“Hey, that’s my book,” I said, “I was wondering where it went.”

“It’s such a cool word,” Danielle added. “Ob-see-quee-us, ob-see-quee-us ... Sounds kind of like what it means.”

“That’s onomatopoeia,⁸ Danielle,” Dad replied calmly.

“Obsequious is onomatopoeia?” Danielle asked.

“What Dad means is that obsequious is an example of onomatopoeia, a word that sounds like what it means.”

“Oh, okay. So ‘onomatopoeia’ is not onomatopoeia,” Danielle said with a smile.

“I think that’s right, Danielle,” I replied, “although I’ve often wondered about that.”

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“Anyway,” Danielle concluded. “Alice is just nice to everyone. I think that’s the way we all should be.”

Later that evening, when Danielle and I were alone, I asked her, “What else have you been doing in your room? Secret cartwheels?”

Danielle shook her head no.

“You know Mom wants you to walk. I assume you’ve tried it?”

Again she shook her head.

“Let’s try, then.”

She took my hand and was able to stand rather easily.

“You must have tried this part, right?” I asked.

She nodded her head yes.

“Hey Dani, you do talk now, remember?”

“Yes, I’ve tried standing.”

“You’re pretty good at it... Let’s try taking a step. Put one foot forward like this.” I demonstrated for her.

Holding my hand, she took a wobbly barefooted step on the white carpet in her room. I got the impression that this was really her first step. She just hadn’t wasted time with it before. We slowly walked around the room saying hello to her dolls, and then around again.

“Hello again, fancy meeting you here,” we said to each doll with each passing. By this time, her legs were getting shaky.

“That’s pretty good for now, Danielle. Let’s do some more tomorrow.”

We practiced each evening, and a few days later she was walking on her own—still a little tentative, but she had it.

“We just have to figure out how to introduce your new skill to Mom and Dad,” I said. Danielle had a plan.

“Thank you, Claire,” Danielle said. She gave me a big hug.

The next evening after dinner, I suggested that we all take a walk.

“I’ll get the stroller,” Mom said.

“No, I’ll get it,” Danielle said. She did her fast crawl to the hallway.

“Maybe if she didn’t crawl so fast—” Mom began to say, but before Mom could finish her sentence, Danielle came out of the closet walking, pushing the stroller in front of her. Mom teared up again and hugged Danielle.

“I guess that’s another use for the stroller,” Mom said.

“Actually, I don’t think we need this anymore,” Danielle said, as she pushed the stroller away.

“Maybe we should hold hands,” Mom said. And with that we took a very slow stroll toward the park, although it appeared to be Mom who was slowing us down.

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The stream that passes by our house goes through the park, and the ducks gather there. People always feed them right next to the *Do Not Feed the Ducks* signs. Danielle took off after one of the ducks, not running exactly, but she seemed to have mastered the art of fast walking.

Danielle threw a rock in the water. The duck then scampered away from the wide part of the stream and toward Danielle. She let out a yell and made a face. The duck started quacking angrily, reversing direction again. She played this little cat and mouse—or Danielle and duck—game with each duck we encountered. Each time Danielle cracked up hysterically. We walked back to the house at an even faster pace than before.



Before Danielle's bedtime, we often got together, like we did when she practiced walking. Some nights I read to her, even though she could read for herself. Sometimes I made up little songs and sang them to her. It was our special time together.

That night, as we were having our goodnight ritual, Danielle suddenly burst into tears.

"Hey, what's the matter, Dani?" I said, but she didn't hear me. Not knowing what else to do, I grabbed her and she hugged me back. I held onto her and gradually her cries softened into a whimper. I continued to hold her until she fell asleep in my arms. I didn't know what the crying was all about at the time, but I think I have a better understanding of it now.



Ever since Danielle was born, Dad had talked about starting a school based on his idea of "learning from doing." He bought a small campus that had a long history as an Episcopal monastery, a brief stint as a country inn when the monastery moved to northern California, and was then abandoned for ten years.

Before Danielle could talk, Mom was not thrilled with the idea. “If you’re so interested in education, maybe you could focus on the fact that we have a two-year-old daughter who can’t talk,” was a typical comment.

Once it became hard to get Dani to stop talking, Mom joined in the school planning. She took responsibility for setting up the counseling department, but took special delight in designing the renovations and landscaping. At home, the walls of the kitchen and hallway were filled with Mom’s sketches.

“I should have been a designer,” she often said. Danielle was quick to adopt the place as “my school.” She took after Mom in the decorating department, building a scale model of Mom’s landscaping ideas. Danielle was at the construction site almost every day planting flowers. I usually joined her when my classes were over.

She told me she was in charge of the flowers, and she seemed to have her own very specific plan for their arrangement, a plan she was not open to any input on.

Dad had a little ground-breaking ceremony with the people who contributed some of the money. Danielle was running around like it was her opening, making sure all her flower beds were in good order. Before I knew it, she was dragging Martine Rothblatt,⁹ the CEO of United Therapeutics, over to see her flowers.

“It’s nice to meet you, Miss ...”

“Danielle. Danielle Calico.”

“Ah, so you’re the precocious daughter.”

“Reporting for duty.”

“This is a cool design you have here,” Martine said, referring to her flowers.

“Yeah, it’s the layout for the computer instruction codes in the Analytical Engine.¹⁰ See, these pansies are the op codes and the poppies are the operand addresses.”

“Awesome, Danielle,” Martine replied. With that she started counting. “Yup, there’s forty positions in each row. I don’t think I’ve ever seen a computer made of flowers,” she said with a broad smile.

“Yeah, well, it doesn’t run.”

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“The analytical engine didn’t run either,” Martine noted. “But that didn’t stop a brilliant young woman named Ada Lovelace¹¹ from writing programs for it. She was the daughter of the poet Lord Byron and the world’s first computer programmer, even though it would be another century before there were computers you could run programs on. She was a lot like you, but a bit older.”

“Yeah, I’ve read about her, I think she’s really cool,” Danielle said, as she noticed one of the pansies was out of place. She tried to dig a hole to move it, but the tough Pasadena soil was not budging. Danielle took a serrated spoon that she used in these situations out of a pocket in her pant leg and loosened up the dirt enough for her spade to dig in and move the pansy.



Dad gave a speech to the people assembled in the courtyard for the ground breaking about his idea of kids learning from taking on world challenges. “Whether they succeed or not,” Dad said, “they might actually learn something they will remember.”

Dad described his inspiration. “I was looking for ways to educate my two daughters, who are here with us today. A couple of years ago, I paid a visit to the European Education History Museum in Vienna and discovered this remarkable school, the ‘Stern Schule,’¹² which practiced ‘learn by doing.’ It was, incidentally, the first school in Europe to provide higher education for girls when it opened in 1868.

“It was founded by a courageous woman, Regina Stern. The idea was very controversial in mid-nineteenth-century Europe and was met with considerable criticism and anger. She bravely lectured throughout Europe on the importance of women’s education and how to go about it. It was taken over years later by her daughter, Lillian, who became the first woman in Europe to get a PhD in chemistry. Between these two women, they ran the school for seventy years until they had to abandon it when fleeing Hitler in the summer of 1938. If they had stayed any longer they would not have been able to escape.

“In honor of these two great women,” Dad said, “the new school will be named ‘The Stern School.’”

With that, we all took turns with the shovel, ceremoniously moving a bit of earth. Dad had brought a small shovel for Danielle to use, but before he could grab it, Danielle was wielding the big shovel with gusto, although she fell over trying to use it. Each of us took a turn—Danielle, Dad, Mom, me, Charlie, and the other kids who had come for the ceremony.



Oh yes, Charlie—we met a few months earlier, when I had just turned ten. His family moved in nearby and he joined my fourth-grade class at the Chandler School. I was still a little uncertain of myself then, and he showed up in my life as this very friendly, accepting person with a big smile. He had wavy red hair which always ended up in front of his eyes. He also came to this country when he was six, having arrived from Ireland with his mom after his dad died of a heart attack. He was tall and lanky and prone to dramatic gestures, like falling into the stream—also a human-made one as there were few natural streams in Pasadena—with his arms spread wide, splashing whoever was with him, which was generally me.

Charlie and I played games in the field during recess, trying to skip stones across the stream. This is very hard to do in moving water, but he was a pro. He’d glance at me whenever he got one to see if I was watching. I always was.

AGE SIX:
***MAKING GOOD USE
OF THE SEWERS***



A year later, Danielle was wheeling that same suitcase, but she had covered Babar with stickers of Wally Melson and Vance Gale. Mom was out of breath, having just come in from her run, and met Dani at the foot of the stairs. Dad calmly walked over from his computer in the study. They were used to her independent ways by now. I watched my sister with amusement, although leery of where we might end up this time.

“Danielle, don’t you have reports due for school?” Mom asked.

“This is my report,” Danielle replied. “I’m reporting for school.”

“And where might that be this time?” Dad asked.

“Zambia.”²⁷

“Really?” Mom wiped perspiration from her forehead as she listened.

Dad seemed to guess immediately why Danielle was going. “Are you bringing a plane full of water?”

I recalled having heard about a great drought in Zambia.²⁸

“Oh, I’ve got you one better than that,” Danielle replied.

“If you go now, you’ll miss Thanksgiving, Danielle,” Mom pointed out. “Can’t you put this off a couple of weeks?”

“No, no. The machines are arriving on Wednesday. I have to be there. Anyway, they don’t celebrate Thanksgiving. They’re concerned with water, not turkeys.”

“This is Danielle’s way of giving thanks,” I offered.

“You say you have machines?” Dad asked.

“Yeah, I have a hundred Slingshot machines²⁹ arriving.”

Dad thought this over. His creased eyebrows relaxed, and a half smile crept over his face. “That’s a pretty fine idea, Dani.”

“Isn’t it? Each machine can provide clean water for a hundred people,” Danielle said.

“But where are they going to get the water for the machines to clean?” Mom asked.

“From the sewer,” Danielle replied, as if it were obvious.

“Ick,” I said.

Mom thought this over. “It sounds unappealing, but I guess that would work.”

“This is going to take some organization,” Dad said. “You can’t just drop-ship these machines. They could be stolen. And people need to be trained to operate them. And someone needs to collect the sewer water on a regular basis.”

Danielle’s tight-lipped expression seemed to say, *Of course I’ve thought of all of that.* “Oh, I’m working with a really nice man named Chibesa Bakala.”

Mom nervously rubbed her fingers, and looked in Dad’s direction.

“Not everyone in Zambia is reliable,” Dad said. “There are many war lords and bandits. What do you know about this gentleman?”

“He’s definitely not an outlaw. He’s the Commissioner of Natural Resources.”

“You know they have crooks in the government, too,” Mom said, biting her lower lip.

“Yeah, sure, I know that. But not this guy. I checked him out.”

“It wouldn’t hurt if we found out more about him. What do you say?” Dad said in a mild voice.

“Sure, go ahead.”

“You’re actually going for this?” Mom whispered to Dad.

“Won’t power be a problem, Dani?” Dad asked.

“The country isn’t as unstable as people think,” Danielle replied. “They just don’t have water.”

“I didn’t mean political power,” Dad said. “I meant electricity to operate the machines.”

“Oh yeah, I ordered Stirling engines,³⁰ too. Each one makes enough electricity for one water machine.”

“But don’t those Stirling engines need fuel?”

“Sewage.”

“It looks like we’ll be making good use of their sewers!” I commented.

Danielle was well prepared for this interrogation. Mom, on the other hand, paced between the front door and the closet.

Dad asked more questions. “That’s about \$200,000 of Slingshot and Stirling machines by my calculation. Who is paying for all this, Danielle?”

“I’ll have a grant from the World Health Organization.”³¹

“You applied for a WHO grant yourself?” Mom asked.

“Yeah, I’m *sure* it’ll come through. I mean I’ve got all their goals covered: Meets a basic unmet need. Minimal ongoing maintenance. Cost effective. Decentralized. There’s no way they’ll say no. I’ll get their official answer soon.”

“That’s certainly an appropriate place to apply to,” Dad admitted. “But you should never place an order before your funding is confirmed.”

“He means don’t count your chickens before they hatch,” I said.

Dani gave us all a determined look. “These chickens *have* to hatch. These people need clean water.”

Mom sighed in resignation. “I assume the Zambian government knows you’re six years old?”

Danielle glanced away. “I don’t think that’s come up ...”



PART ONE

Danielle had arranged this great deal on tickets, but the catch was it was all middle seats. On the first leg from LA to JFK, Danielle was in the seat ahead of mine, so I kept seeing her head popping up and looking back at me with a big grin. Dad was in the back of the plane. That flight wasn't too bad, but the red-eye flight to London was a bit more difficult. Dani was doing just fine, curled up in a little ball and sleeping like a baby. I, on the other hand, was up all night in between two overweight guys who seemed to be flirting with each other. I finally offered to change seats with one of them, which they were delighted to do, and that got me an aisle seat, but I still couldn't sleep.

We then had a tight connection in London to catch a small propeller plane to Lusaka.³² We flew through a rainstorm and the plane bounced around like a ping-pong ball on the surf. Even Dad looked nervous. I alternated between being convinced we were going to crash to using all of my concentration to prevent myself from throwing up. Danielle was smiling like it was an amusement park ride.

As we landed, I could see a big sign that said *Welcome to Zambia* and another sign for Lusaka International Airport with a couple of missing letters. When I stepped off the plane it felt like a sauna, with searing gusts of sand swirling around. We were met by Commissioner Bakala, whom I recognized from his web picture, a heavysset bald man with a round face, a white hat, a black suit, and a smile as big as Danielle's. He had one lanky young assistant dressed in some kind of traditional red robe, who was very eager to please us. He gathered up our bags and held an oversized umbrella to block the swirling sand.

"Ah, very well, Danielle has brought her family. We are greatly honored," Mr. Bakala said in slow, carefully enunciated English.

Dad introduced Danielle.

"Oh, there is a little Danielle?" Mr. Bakala said.

Dani and I gave each other a look, wondering if he understood the situation.

"Perhaps your assistant would like to go with my assistant," Mr. Bakala said to Dad, referring to me.

"No, thank you. Claire is my daughter," Dad explained.

Flustered and embarrassed, the Commissioner replied, “Why, yes, of course.”

That, by the way, was not the first time someone had made that mistake. Every time this happened, my whole body burned, but then I’d look into the eyes of my family and remind myself that I belong. I know it, even if not everyone else does.

“And where is Danielle?” Mr. Bakala asked with an expectant expression.

“This *is* Danielle,” Dad replied.

“I mean the older Danielle,” the Commissioner clarified.

Dad gave him a wry smile. “Oh, there is only one Danielle.”

The Commissioner again tried to regain his composure.



The Slingshot machines started arriving at the airport in large wooden crates, but there were no Stirling engines. After some investigation by Commissioner Bakala, it turned out they had been seized by the Zambian Electric Power Commission.

“There are lots of fiefdoms in the government here,” Dad explained to Danielle.

“Unlike our government? I’ll go talk to the power commissioner then,” Danielle declared.

“Dani, you know what we’ve discussed,” Dad counseled. “It always pays to figure out who really makes the decisions and talk to him or her.”

“Yes, very good advice,” Mr. Bakala noted. “You should listen to your father, Danielle. And I can tell you who that person would be.”

Mr. Bakala took Danielle to meet with General Namusunga Lopa, the Chief of the Zambian Armed Forces while Dad and I remained in the background. Dani told me all about their meeting after the fact, and apparently the General was very impressed by such a confident and eloquent child.

We soon got a call from the Power Commissioner with profuse apologies for his misunderstanding. “The Stirling engines are on their way,” he reported.

PART ONE

Mr. Bakala organized a group of volunteers in the town square to help Danielle assemble the machines, but they only spoke Nyanja,³³ the principal language of Lusaka. The instructions for setting up the machines were terse and not very clear. Danielle had all the parts for one machine scattered on a concrete plaza, which was getting increasingly hot as the midday sun settled in the sky. The volunteers seemed eager, but were unable to read the English instructions. I handed Danielle parts as they started to put the unit together. She had particular difficulty trying to insert the compressor unit. It took a bit more force than Danielle could muster, and after several attempts, Mr. Bakala was able to get it to click in place. The rest of the assembly went fairly smoothly with the village girls eager to help in assembling the machine.

One of the girls poured the brownish, sour-smelling sewer water into the machine. It started to make a whirring sound, and after a few minutes, out came pure, odorless water! Everyone cheered. We all drank the water from plastic glasses that Mr. Bakala had brought for the occasion and Danielle curtsied for the group.

We were staying in a concrete building on metal beds with straw mattresses, but they were rather comfortable compared to sitting up on the plane. That night I could stretch out for the first time since leaving LA and fell into a deep sleep only to be awakened at the crack of dawn by the high-pitched braying of eight donkeys.

“We have most donkeys working in Africa,” Commissioner Bakala proclaimed as I looked out of the window. “We are ready for first field installation.”

The volunteers had fashioned rolling carts for two crates, containing one water machine crate and one Stirling engine. Each cart was pulled by one of the donkeys. There were also donkeys with saddles for Danielle, me, Dad, and two of the volunteers.

“We have a problem,” Dad said.

Danielle and I gave Dad a questioning look.

“Someone’s got to look after the machines in Lusaka,” Dad explained. “But I need to go with you two girls.”

“Mom will have an answer,” Danielle said.

And indeed, she did, as we spoke to Mom in a somewhat static-filled video call.

“I’ve had the same concern,” Mom said. “I already spoke with Uncle Eric, and he’s ready to fly in from Chicago. He says it sounds like a worthy cause, and he’s happy to volunteer a bit of time and the price of a plane ticket to help out.”

Eric is Mom’s brother who’s had an adventurous history as the manager of a forestry company in Northern Michigan. Both Danielle and I had been regaled with his tales of encounters with grizzly bears, and gangs of lumber thieves.

“That’s great. Eric will be fine to watch the machines. I’m glad he’s available,” Dad said.

“Actually, Richard, I’d be more comfortable to have him go with the girls. You can take care of the machines,” Mom replied. “He at least knows something about the forest.”

After that exchange, we waited two days for Uncle Eric’s arrival.

The two-day donkey ride was breathtaking as we passed a diversity of animals. From my pocket-sized book, *African Wildlife in Pictures*, I was able to identify pelicans, cormorants, herons, egrets, storks, osprey, big and little snakes, all sorts of small animals, antelope, and a pod of hippopotamuses. Feeling vulnerable, I looked intently for lions, but Eric tried to assure me that he was pretty sure they were on the other side of Zambia at that time of year, and if we did encounter one to just remain calm. While I kept up my lion vigil, Danielle practiced her skills using a guitar simulator on her iPad. I must say that the speed and turns of her riffs were astonishing. On the first night of our two-day donkey trip, we camped out in a grass field under a fantastic quilt of stars we never see in Los Angeles.

We finally arrived in the small village of Sempala,³⁴ and were met by a welcoming committee of three women in colorful blue and black dresses, and a girl about Danielle’s age.

“My name Amukusana. Me you call Amu,” the girl said in what was apparently her only English. She smiled as if Danielle was an old, lost friend. Danielle grinned back in kind. She gestured for Danielle to

follow her and the two girls ran off giggling around a fat tree. It reminded me of how immediately accepting Charlie had been when I first met him.

“Icimuti,” Amu said as she pointed to the tree.

“Tree,” Danielle replied. “Dog,” Danielle said as she pointed to a village pet.

“Imbwa,” Amu replied in her native Bemba.³⁵

Danielle tapped Amu’s shoulder and then ran away. Amu seemed to catch on quickly. The two girls ran their game of tag around the village, tapping and running, laughing and shrieking.

The volunteers were eager for us to unpack the donkeys and get settled, but I had never seen Danielle play with anyone like this before. I gestured that they should be patient. We let the girls continue their game, while I was given a tour of the town by a tall woman wearing thick eyeglasses and a bright red and yellow blouse.

The houses were single room huts with walls made of reddish brown wooden planks. “Kayimbi,” my guide said pointing to a wall, which I gathered was the type of wood. The roofs were pointed and thatched with straw. There were glassless wooden windows you could swing open. Inside were straw mats that served as beds. It looked like one or two families lived in each hut, which was luxurious compared to the brick room that Mum and I had shared with six other families in Haiti.

She showed me a large building with a crudely painted sign that said ANIM L B RN. I looked in, though my guide seemed eager to move on. There appeared to be no animals, but then I heard some scurrying and looked through a wire mesh window to find three chickens. I watched them do three wide circles around their pen. The largest one—I figured he must be in charge—pecked incessantly at the smallest one, who pecked at the one with a missing wing.

I noticed there were no men in the village. I asked my guide about this, but she didn’t understand, so I took out my pen and a pad and drew the stick figures for a man and a woman, pointed to the man and gestured “where?” She then made two gestures—showing me her necklace and then imitating someone striking the ground with a pick. I got the idea that the men were off working at a mine somewhere.

“Royal suite,” were the only English words my guide spoke as she showed me where they apparently intended Danielle and me to sleep. It was a hut like all the others, but it had two beds and featured the only wooden shelves I had seen in the village. I wanted to rest, but I was struck with a sudden concern for Danielle’s whereabouts. I tried to ask my guide where the girls were, but she did not understand, so I ran through the village. It was not long before I heard two girls giggling hysterically from one of the huts.

I walked in and there was Danielle with a big grin swinging a woven straw mat. Amu ducked and swung back. I picked up a mat similar to the ones that the girls were wielding and found it was surprisingly heavy and hard. That would not do—I needed to get them some real pillows, and fast. I didn’t see any nearby, so I conducted an urgent hunt for pillows in adjacent huts, but this was equally unsuccessful.

I looked up. There, hanging on a clothes line that traversed a dusty lot, were seven colorful blouses. I recalled that there was a pile of hay in the barn.

I’ll make my own pillows, I thought. But as I approached the clothes line I realized that I couldn’t just take a stranger’s clothes. I ran back to our royal suite, grabbed two of my blouses, actually the only two that I had brought, ran back to the barn, filled them with straw, tied the ends with string and the arms to each other, and voilà: two rather colorful makeshift pillows.

I’ll always remember Danielle’s teary reaction when I presented her with my creations.

Thank you, Claire, she mouthed, grabbing the flowery one. She ran after her new friend with her new pillow, and I tossed Amu the other one. As the pillow fight raged on, I slipped out to stroll through the nighttime village. The darkness was lit with candles and gas lanterns and all was remarkably tranquil despite my lingering lion concern.

When I came back to check on them, the girls were asleep arm in arm in Amu’s cot. My blouses had not fared as well as the girls—the fabric was ripped and stained, but I figured my wardrobe had been sacrificed to a good cause.



The next morning Danielle and Amu prepared to put together the two machines while video-recording each step with Danielle's iPad.

"This is the input collection basin," Danielle said, as she removed the first big piece from the water machine crate and placed it on a blanket while Amu held the iPad in video record mode. One by one the pieces ended up on the blanket as Danielle narrated. The girls then put the pieces back in the crate and Danielle recorded Amu taking them out and placing them on the blanket with her own narration in Bemba. Amu seemed to catch on quickly. Both Danielle and I wondered what Amu was actually saying as she took each piece out—we figured it was something like "big fat round bowl" and "long pointy thing."

With my help, Danielle put the pieces together following the same procedure that worked so well in Lusaka, again with Amu video recording. Then Amu took it apart and assembled it with her Bemba narration and a bit of assistance from Danielle. The crowd of women watching us grew, along with anticipation as Amu tightened the last bolt. They followed the same procedure for the Stirling engine, which was much simpler as the motor comes preassembled. To prove that it worked, Danielle was able to illuminate a test light bulb, which got a cheer.

Danielle poured in the sewer water, which was not quite as scary as the foul fluid we used in Lusaka, but had its own strange odor. Danielle allowed Amu the honor of pressing the Start button. The machine jolted into action, but something was wrong. Danielle winced as we heard a grinding sound.

Danielle urgently pressed the Stop button and she and Amu began to disassemble the machine. The women watched with increasing concern. The water had already made its way through the mechanism, so the girls were getting soaked in the pungent liquid, which didn't seem especially hygienic to me, but Danielle and Amu kept pressing ahead. Amu quickly identified the problem—a key assembly bolt had been inserted at an awkward angle.

"Argggh," Danielle wailed as the head of the screw came off in her wrench. She looked forlorn as she realized that the bolt was buried deep

in its shaft with no head to turn and no way to access it. Amu and the other women poked at it with spoons and small rocks, but Danielle urged them to stop, concerned it would only make matters worse.

Fifteen minutes later, Amu started jumping up and down and raising her hand suggesting she had a solution, said something in Bemba and ran off.

Danielle just sat there. “Just bringing another collection basin assembly will be too risky,” Danielle said to no one in particular. “I’d better bring a whole other water machine.”

“That would mean a round trip to Lusaka by donkey,” I pointed out.

Dani bit her lip and studied the machine again.

After about a half hour, she started slowly and sullenly taking the other assemblies apart. By the time she got down to the one assembly that was stuck with the jammed bolt, Amu came back, jabbering excitedly. She pointed off in the distance. We looked up but there was nothing to see—just the sun’s intense rays dancing on the hot, swirling sand.

But then, like a mirage in the mist, a tall bare-chested man emerged slowly leading a donkey, his image gradually coming into view as he drew closer. He had bright wide eyes and a mustache, and tied onto the donkey was a large ragged suitcase held together with string, along with a giant shiny metal box. Amu ran up to him and they hugged.

“Nsishumba,” Amu said pointing to the man and to herself. I quickly realized that Nsishumba was his name and that he was Amu’s dad, Nsishumba Mwanza. Danielle curtsied to him, which later became a signature move for her whenever she wanted to show someone deep respect. He strode to his suitcase and took out three necklaces, each consisting of a beautiful woven braid and a pendant of richly colored dark blue lapis lazuli, which he presented to Amu, Danielle, and me.

He took down the shimmering container which was taller than Danielle and unlatched it. Inside was a fantastic array of every sort of tool—wrenches, screwdrivers, saws, hammers, pliers, welding equipment, and strange gadgets I had never seen. Danielle and Amu showed him the problem. He tried a tool that was able to wrap itself around the bolt, but the size was not quite right. He tried many different sizes until finally a grin crept over his face, which was quickly returned

by Danielle and Amu. The tool was able to slip inside the sleeve and wrap itself around the bolt.

He turned a knob, tightening the mechanism around the bolt, and then attempted to rotate it, but it wouldn't budge. He kept turning it, with the strain showing on his face and his biceps. Danielle looked concerned that something was going to break. He tried again, but it just wasn't moving.

Finally, Nsishumba gestured that he had an idea. He took out an acetylene torch and heated the bolt for about half a minute. He then pointed to the tool and said a few words in Bemba to his daughter. Amu gingerly turned the tool and lo and behold it now turned easily. Within seconds, the stuck bolt was removed.

But now there was another problem. They had no replacement bolt. Danielle found the head of the bolt that had broken off at the bottom of the water machine and made a gesture indicating that we just needed to connect it back to the bolt shaft. Nsishumba smiled and went back to his treasure trove of tools, this time selecting a small welding machine. But—he held up the plug—he needed an electrical outlet.

Danielle lit up and pointed to the female outlet on the Stirling engine. Nsishumba's eyes widened as this was the first time he had ever seen an electrical outlet in Sempala. He plugged in his welding machine and Danielle started up the engine. The ready light came on. An expression that said *Now we're getting somewhere* was on everyone's faces. In a few more minutes, Amu's dad welded the head back onto the bolt.

Amu inserted it, turning very slowly to make sure it went in straight this time. The two girls put the rest of the assemblies back together taking turns assembling and video recording. Amu had very quickly become an expert on Slingshot machine assembly. She invited her dad to pour in the dirty water. Everyone was silent as Amu gently pushed the Start button. This time, the machine began its gentle purr. Thirty seconds later, crystal clear water poured from the spout into the ceramic bottles the women had ready. There were cheers and tears of joy while Danielle and I shared a satisfied smile. I thought to myself: *A father is a good thing to have.*



On our way back to our royal suite, I stopped to show Danielle the animal barn and the three chickens. Danielle immediately shared my affection for them, giving the big chicken the name Loleck, because she seemed to laugh every time she poked the little chicken. I named that smaller chicken Boleck because she seemed to walk with a bow-legged limp. Boleck picked on the chicken with the broken wing, whom Danielle named Roleck because she would roll across the coop each time Boleck pecked her. Danielle became incensed as Boleck kept picking on Roleck, so Danielle picked up some seeds and, just as Boleck was about to peck Roleck, she threw a seed at her which startled her and prevented the attack. It took a few such interventions for Boleck to get the message, but it seemed to work. Then she saw Loleck headed for Boleck so she used the same strategy. By the time we left the chicken coop, the three chickens were sitting peacefully together. I joked, “We should send you to the Middle East next.”

“Great idea, Claire,” Danielle replied. “You think I can use the same strategy?”



The next day, Danielle and Amu held master classes for the women on how to use the two machines, while I passed the day wandering around the village. Again and again I saw Danielle rush urgently to the village outhouse.

“Dani, our toilet paper roll is getting dangerously thin. We only brought one. It needs to last until we get back to Lusaka. Or maybe we should start collecting leaves as plan B.”

“Thank you, Miss Calico,” she responded, as if I were a scolding teacher, “I’ll definitely take your concern into consideration.”

Our meals were almost all vegetables. Lunch was a stew of tomatoes, cabbage, eggplant, and onions with strong spices. I recognized ginger, paprika, and chili powder, but there were some unidentifiable other flavors in the mix. It was tasty and seemed to agree with my digestive

tract, but Danielle's stomach had its own ideas. There was always a dish of cornmeal paste, which was bland but filling. My favorite part of each meal was the compote of fruits which looked strange but tasted like mango, pear, and passion fruit.

Amu came up to me eagerly and shared another English phrase she had learned. "Celebration tonight," she said.

Danielle ran up after Amu and nodded enthusiastically. "It's for the water machine," Danielle explained.

On the walk back to our royal suite, Danielle and I checked in on our new animal friends. Danielle ran up to the chicken coop and curtsied to Loleck with a smile that quickly turned to dismay as she looked inside.

"What's the matter, Dani?"

"Oh my god, Roleck is gone," I said answering my own question. "Boleck must have finally gotten to him."

"Maybe Boleck was mad from my little discipline session," Danielle added.

We stared at the coop hoping Roleck would magically appear.

I started to count the metal loops in the mesh, and that reminded me of counting the white tiles in the hospital when Danielle was born.

"Actually, I don't think Boleck had anything to do with it," Danielle concluded as we morosely left the coop.

As we made our way back to our room I began to fret about something else. The only two blouses I had brought were wrecked so I considered how to spruce up the T-shirt I was wearing. I eyed some wildflowers that I imagined I could attach if only I had some pins. I picked one that I recognized as a "blazing star" from my botany class and tried to insert it in the T-shirt's neck opening but that looked outlandish even before the flower fell apart. *Maybe I can just carry some flowers to make myself look more festive*, I thought.

But when I got to our hut, there, neatly folded on my bed, was a beautiful red, yellow, and orange blouse with images of Zambian fruits and flowers.

"Hey Dani, do you know anything about how this got here?"

She widened her eyes as if to say *Beats me, I have no idea*. But I didn't believe her.



Women in dresses with bold and intricate swirls of red, black and gold were sashaying around the room as we walked in. Danielle wore a light blue skirt with images of a five-pointed white and yellow flower I've seen all over Zambia. Someone must have given it to her as I had not seen it before. A band of four women consisting of three drummers and a marimba player played a song that made me think of the Mad Hatter jumping frenetically around the tea table. A dozen children danced with remarkable synchrony. There were candles on the tables and garlands of flowers hanging from the rafters. I saw only kids and women, with the exception of Nsishumba, who wore a traditional vest that came down to the floor decorated with images of colorful shields.

"Dad go back mine," Amu said sadly but proudly in her improving English. She held up her lapis lazuli pendant to make the point about the mine.

The first course consisted of long pieces of what looked like celery but tastier and crisper, served with a spicy cold dip that tasted like hummus with some sort of crunchy nut in it.

The women serving us lit up, as if something profound was about to happen. They whispered to each other like excited school girls and ran to the neighboring tent—the kitchen—to fetch the next course.

Ceremoniously, they carried out the *pièce de résistance* of the evening. They looked eagerly at our faces for a reaction to the delicacy they had placed in front of us. Women from the neighboring table, including Amu's mom, came over to our table to catch a glimpse. Apparently, our head table was the only one to get this version of the entrée—a lovely jubilee of rice, corn, tomatoes, and something like eggplant. But at our table, there were also small chunks ... of chicken!

"I told you Boleck wasn't responsible," Danielle whispered in my ear.

"Maybe we can just slip the remnants of our friend into our pockets," she added.

But this proved impossible with the women eagerly watching over our shoulders. Gingerly, we each cut a small piece of chicken into yet smaller pieces and put one in our mouths and swallowed.

PART ONE

Thirty seconds later, Danielle's face turned green and she urgently pointed out of the tent toward the outhouse.

"You go," I said to Danielle, feeling a bit queasy, but thinking I could wait it out. But I couldn't. We both made a beeline for the outhouse. I usually try to resist this urge to purge, but feel better after I admit defeat—I got to the hole in the wooden plank that serves as a toilet barely in time and what little I had eaten came back up the same route it went down. Danielle was not quite as fortunate and threw up all over her skirt.

Exhausted, the two of us lay hand in hand in the outhouse. I thought maybe Danielle would have one of her crying fits, but instead she started to laugh at the incongruity of our situation, taking in the warm air, and closing her eyes.



"We'd better think about returning to the party, Dani," I said, regaining my wits. Danielle's eyes were closed but she nodded like that would be a good idea.

"Our next problem is cleaning you up," I added, and took Danielle's hand. I led her to the stream, grabbing a towel hanging on a clothes line en route—which I figured would be okay under the circumstances.

"This water is polluted," Danielle noted.

"Right," I replied. "We wouldn't need the water machines if it were drinkable. But it should be okay to clean you up. Just don't drink it."

"Oh god, this is cold," Danielle exclaimed as she waded in. She took off her skirt and we both cleaned it in the water using the big plantain leaves that lined the stream as scrub brushes. Gradually the stains disappeared.

"We just have one problem left," I said as Danielle ran out of the water wrapping herself in the towel.

"Yeah," Danielle responded holding up her dripping wet skirt.

"Dannel! Clear!" we heard a man shouting followed by what was obviously Amu's voice, "We look for you."

“Over here,” I answered, and with that Amu and her dad came running around the bend. Amu had her hands on her hips as if to say *Where the heck did you go?* Danielle held up her dripping wet skirt and Nsishumba immediately grasped the problem and held up a finger. I figured that meant he had a solution.

He gestured for us to follow him. Danielle limped along holding the towel around her and lugging her shoes while I carried the skirt.

We were back at the tool chest and the two machines. He took out the acetylene torch that had caused all three of us girls to frown, but he shook his head gesturing that this was only part of the solution. He retrieved a fan from the tool box, plugged it into the Stirling engine (which Amu turned on) and held the fan just past the point of the flame, and voila, a makeshift hot air dryer.



“I hope they didn’t save our chicken entrees for us,” I whispered to Danielle on our walk back to the party. She grimaced. But my fears were unfounded as they had moved on to dessert. There was a cheer as Amu and Nsishumba returned with the two of us in tow. The dessert was a fruit cake—the first cake we had seen in Sempala. It was the best treat we had had there and we dived into it robustly, much to the delight of our hostesses.

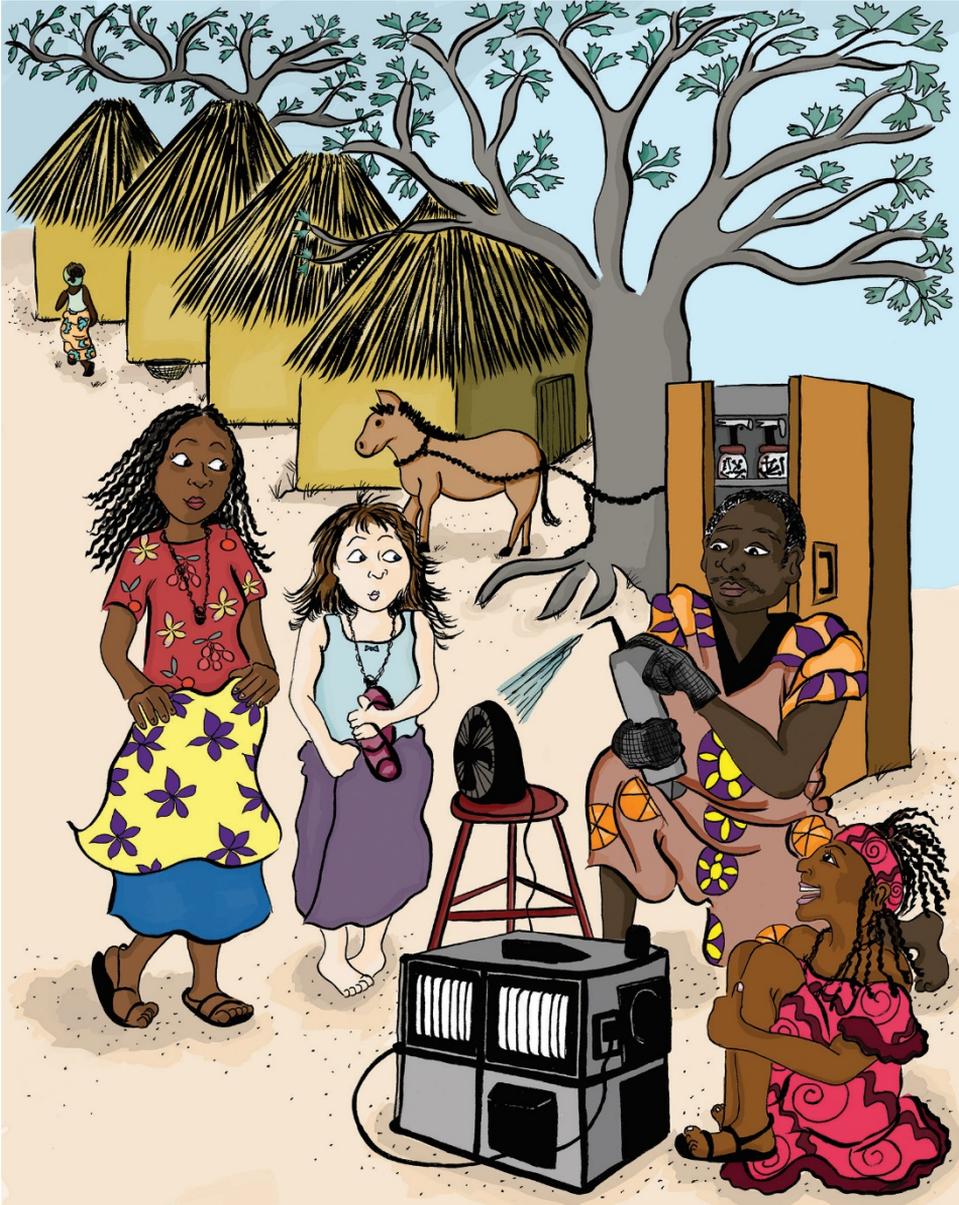
The next morning I was groggily regaining consciousness when Amu burst in exclaiming, “I go Danielle.” Danielle was one step behind her resolving any ambiguity in Amu’s slowly improving English.

“But there’s no donkey for her,” I replied, gradually regaining consciousness.

“Two seats!” Amu replied.

“Yeah, well two saddles,” Danielle clarified. “We just tried it. And, anyway, we need to edit our instructional videos. There’s a showing when we get back to Lusaka that Commissioner Bakala said he would organize.”

“And how is Amu going to get back to Sempala?” I queried.



“Eric will take us,” Danielle replied. “He has to return two of the donkeys anyway as they belong here.”

“Okay, but I don’t think you’re going to get much video editing done on our trip back,” I concluded.

We said our goodbyes. Amu’s parents embraced Danielle. Nsishumba was also leaving by donkey with his tool chest and suitcase, but headed to

the mine where he worked. Women crowded around the machines and many hands waved to us as our caravan left the village.

It turned out I was wrong about the editing. While I held on for dear life, trying not to fall off my donkey and negotiating with my GI tract, which was definitely not happy with the donkey's gait, the girls busily edited their videos while laughing and even recording additional video segments.

"Make sure you put the third basin screw in straight and turn it slowly," Danielle said as Amu filmed. Then Danielle held the iPad and filmed Amu nodding in agreement with what Danielle had just said. Then they fussed with the video app, inserting the new segment in the right place. Amu was picking up iPad video editing skills to match her rapidly growing proficiency in English. Both girls seemed completely oblivious to the fact that they were riding on a donkey. Dani seemed as relaxed as she would have been sprawled out in our living room in Los Angeles. I was far less relaxed and stayed on the lookout for lions.

"Dani, you're going to run out of battery," I shouted at her.

Danielle held up a satchel. "Five batteries!"

"No wonder your luggage has been so heavy," I replied.



As our caravan approached our inn in Lusaka, Danielle and Amu jumped off their donkey and ran to Dad who waited outside for our arrival. Danielle gave him a big hug and introduced Amu.

"He's got a tool for everything!" Danielle said to Dad about Amu's dad as I caught up with them.

It was a good thing the girls had edited their videos because scarcely an hour after our return to Lusaka a large group of volunteers, both men and women, assembled to watch and learn.

"Shouldn't we vet this?" Dad asked.

"I'll show you five minutes, but there isn't time now to watch the whole thing. You'll see it with the Commissioner."

The screenings were a big success. In the film, after each phase of assembly, Danielle and Amu struck poses to demonstrate the

configuration of the levers and pulleys, while a snippet of LaDonna's "Pose" played in the background. They used decals on their arms and legs to show the position of screws and bolts. This generated laughter, but Amu's Bemba version appeared to be even funnier—judging by the response of the mostly female audience. The editing seemed rather professional considering that it had just been completed hours earlier by two six-year-old girls riding on the back of a donkey in the Zambian jungle.



"There is a little problem, but nothing to worry about," Commissioner Bakala told us. "It appears that thirty of the water machines had been stolen by bandits. We are trying to figure out which police district has jurisdiction. I hope it is not the Muchinga District. There is much corruption there," he added.

"They'll sort this out," Dad counseled. "Our flights are tomorrow, and we really need to get back. I think we've accomplished our mission here."

Danielle just stood there. She and Dad held a familiar staring contest, which Danielle always won.

"Okay, let's find the police commissioner," Dad replied.

The main police station turned out to be only a few blocks away.

"We've been expecting you," the Commissioner greeted us as we entered the station. "We've been looking into this, but the machines do not appear to be in our district. We did intercept one attempt to sell the parts. Apparently, they were trying to get 250,000 *kwacha*."

"That's so inefficient," Danielle exclaimed. "The machines cost us a thousand dollars each and they're selling the parts for forty dollars!"

"Crime is rarely efficient, Danielle," Dad explained. "That's one reason it's a crime."

As we left the station, Dad kept an eye on Danielle, who was staring off into the distance.

"Okay, I'm going to the hotel to pack. Let me know when you're ready to leave," Dad said.

Eric and I stayed with Danielle who just sat looking dismayed but determined at the same time. After a few attempts at suggesting solutions to Danielle, we resolved to just sit with her as late afternoon set in.

Suddenly, a military convoy pulled in to the town square, spreading dust in all directions. A formation of soldiers stepped out of their jeeps and ceremoniously opened the door of an elaborate armed vehicle. Out strode Commander Lopa. Danielle ran up to him and he extended his hand which Danielle shook vigorously.

“Ah, just the person ... I wanted you to know that we have declared the missing water machine situation to be a matter of national security. The army has been put in charge of the problem. We have already recovered five of the machines and apprehended several of the bandits. My men ...”

“And women,” Danielle added.

“Why, yes of course.” The commander continued, “They are scouring the nation—trust me, we will find every part of every machine.”

Danielle wrapped her arms around him, which seemed to please him.

“We can go now,” Danielle whispered to me.

By the time we were ready to leave, several donkey convoys were getting ready to take machines to remote villages, while other machines were being loaded into a jeep to go to a nearby city.



When we got back to Los Angeles, we learned the disposition of Danielle’s funding application to the World Health Organization. It had been approved, but only for 70 percent of the cost.

Danielle raised the remaining \$60,000 on the crowdfunding site GoFundMe posting funny and poignant videos of her and Amu lecturing the grown-ups on how to assemble the water machines.



“We didn’t do much,” Danielle said at the dinner table.

“Hey that’s an improvement over ‘we didn’t do *anything*,’” I noted.

“It sounds like thousands of people have clean water now who were drinking contaminated water before,” Mom said. “That’s something to be proud of, not mope about.”

“Danielle is always looking at the glass half empty rather than half full,” Dad observed.

Danielle sighed. “By my calculations, the glass is now about one third of one percent full.”

“That’s a lot, Danielle,” Dad countered. “The Talmud³⁶ says ‘whoever saves one life has saved the whole world.’”

She perked up slightly. “The Talmud says that? Okay, but a million people in Zambia are still without clean water.”

“Danielle, you can’t solve all of this by yourself. Anyway, you’ve contributed more than just some machines,” Dad pointed out.

“Like what? Amu’s and my instructional video?”

“You gave them the most valuable thing of all, a good idea,” Dad explained. “Others can follow in your footsteps.”

“We’ll see,” Danielle said. “Mao³⁷ once said he felt he was only moving a few deck chairs around on a sinking ship. He didn’t feel he was having much impact.”

“Too bad Mao didn’t stick to moving deck chairs around,” Dad replied. “Impact is not as important as having the right ideas. If one percent of the world did as much as you, there would be no suffering.”

Danielle shrugged her shoulders.

“I hear you made a friend, Danielle,” Mom said with a smile.

“Yeah, how about that,” Danielle replied. “Will miracles never cease?”
“I’d love to meet her.”

“Hey, not a problem,” Danielle offered. “All you have to do is hop a plane to New York. And then a red-eye to London. Then don’t dally in London, because it’s a tight connection to the old propeller plane to Lusaka. And you should hope that it’s not raining so that the flight isn’t too bumpy. You should bring a good nausea medicine, just in case. When you arrive, you need to arrange a donkey caravan, which you can’t reserve in advance since they have no phones, let alone Internet.

AGE SIX: MAKING GOOD USE OF THE SEWERS

After that, it's a two-day donkey ride through the jungle to Sempala. Oh, and make sure you have a good guide because Sempala is easy to miss."

"And watch out for lions," I added.

"And if Amukusana's not on a mission to gather swamp or sewer water," Danielle concluded, "then you can say hi."

AGE SEVEN:
***BURYING THE EVIDENCE
OF A CRIME***



I'll celebrate when I see Amu," Danielle said, rejecting Mom's suggestion of a seventh birthday party. Not wanting another awkward party, Mom backed off.

I was sort of expecting it that night when Danielle had one of her crying fits. I can see them coming because her lower lip curls, her nose becomes scrunched, her eyes half close, her hands start flailing, and she hunches over like an old woman.

"You sort of know how this will work out," I said to Danielle as she sniffled in my arms.

"Sure, but I can't help sinking into this feeling," she said as she regained enough composure to respond.

"The million-mile bridge again?" I asked. She was thinking it over, so I added, "That sounds pretty strenuous."

"Pretty lonely, actually," Danielle responded. "Like a goodbye."

"A goodbye can be followed by a hello."

PART ONE

"There's no hello," Danielle replied, "just goodbye."

"Mom's talking about another visit from Dr. Sonis," I said.

"Oh my god, you told her!" Danielle exclaimed.

"Well, a week ago Mom saw you running to my room with, uhh, some urgency. I had to reassure her that nothing drastic had happened. Dad was there, too, and he said he knew about it."

"Yeah, I think Dad overheard me and we talked about it."

"Oh, thanks for telling me that Dad knows."

She nodded and sniffled. "Yeah, and thanks for telling me about Mom."

"So, what did Dad say?"

"He said he knows about the endless rooms, too."

"Endless rooms?"

"Yeah, well, endless rooms, endless bridge, it's just different metaphors. But he's learned how to be okay with it. He said when you're in one of the rooms, the rest of the world seems like an illusion, but when you're out in the world the eternal succession of empty rooms becomes the dream." Danielle sighed. "I don't think I found that especially comforting. What did Mom say?"

"She said they're panic attacks. Dad has had them, too, but she's disturbed that you're having them at such a young age. I didn't have the heart to mention that these episodes started when you were two."



She was standing at the foot of the staircase again with the rolling suitcase. Those country music stickers had been replaced by scotch-taped pictures of someone I didn't recognize.

"New singer, Dani?" I asked.

"I don't think he sings. Cheng Liu is a physicist."

"He looks pretty young to be a physicist."

"He's ten," Danielle replied. "Well, almost eleven."

"You probably have the only Cheng Liu suitcase in all of North America."

"I think there might be a few in China."

"What sort of physics? Stars and galaxies?"

“Actually, the other end of the size continuum,” Danielle replied. “Very little things. You’ve heard of strings?”

“String theory?³⁸ Sure.”

“Strings are like little spaghettis only much smaller and with zero width,” Danielle explained.

“I like fat spaghetti myself,” I replied.

Danielle went on as if I hadn’t interrupted. “Cheng Liu replaces the strings with what he calls manifolds.³⁹ Two-dimensional ones are like curved sheets of paper. And three-dimensional ones are like tiny objects bending in the fourth or fifth dimension.”

I smiled at her earnest explanation and gave a nod. “Makes sense.”

“It makes a lot of sense. I could never understand why string theory was restricted to just one-dimensional objects.”

“That does seem pretty limiting.”

“Now this research has me wondering, why stop at three dimensions?” Danielle said, a spark of excitement in her eyes. “I mean, if we have the dimensions handy, then why not have four or five dimensional manifolds and beyond?”

“Exactly my sentiment.”

“Okay, you’ll see,” Danielle said.

“I’m sure I will. Where are you off to this time? Antarctica?” I asked, and immediately regretted it, not wanting to give her any ideas.

“I thought maybe I could go with you to CMA.”⁴⁰

That was easy. “That’s no problem at all.”

“And I’d like to perform.”

“Uh, well. That’s probably doable, too. I’m only allowed to introduce one new singer each year and I was going to introduce Meredith,” I said, referring to a Stern School classmate. “But I suppose she can wait until next year. I mean I think you can do it.”

“Terrific!” Danielle replied.

“But why don’t you talk to Dad about it first,” I added.

Danielle frowned.



Danielle and Dad discussed the CMA at dinner, with Mom and me listening.

"You know, I've heard you two girls singing for years and you definitely have an amazing talent," Dad said. "But there are a couple of things you should think about."

Danielle turned in Dad's direction and widened her eyes in anticipation.

"First, your sister already told Meredith she could perform this year."

Dani bit her lip. "Go on."

"Second, if you're successful, and I'm sure you would be, it will be as if you've been shot out of a cannon. There will be no turning back."

Danielle returned to eating her peas. I could tell she was thinking over Dad's counsel.

"You know, if Meredith was counting on performing," Danielle conceded, "I don't want to be responsible for bumping her. I can wait."

Dad, Mom, and I shared a relieved look.



While we were eating Mom's blueberry pie, Danielle had another announcement.

"I got a letter from Amu." She held a piece of paper and handed me an envelope.

"Oh wow, those are beautiful stamps," I said as I passed the envelope to Mom.

"That's wonderful, darling," Mom said. "I know you've been missing your friend."

"Her English is really getting better," Danielle observed.

I was so happy for Dani. "We're all ears. What did she say?"

"She writes 'Dearest Dani, I hope all family happy. I go with Dad to Lusaka for water meeting be there last Tuesday November. Maybe you be there I bring pillars. All love, friend forever, Amukusana.'"

"Pillars?" I asked, knowing the answer as soon as the word left my mouth. "Oh! Pillows!"

Danielle stood and held up the pillow she had been sitting on. “This works out perfectly,” she exclaimed. “Claire and I will fly to Lusaka after the CMAs!”



So, Danielle and I went off to CMA.

I remember kneeling on the stage, checking the microphones while a massive wooden cowboy loomed over me. I motioned for Dani to come over beside me and she ran onto the stage holding her guitar. I pointed out at the vast, empty grassy field. “That’s where the fans will be soon. Isn’t that exciting?”

She looked at the field and gave a curtsy, as if greeting thousands of fans in the audience. In her enthusiasm, she grabbed the mic and started to sing one of her songs.

Before I knew it, the backup band for the Mountain Boys, who had been tuning their guitars, started jamming along, so I joined in, too. This resulted in a spontaneous fifteen-minute jam that ranged from Alabama blues⁴¹ to Jimi Hendrix.⁴² The Mountain Boys folks stared at Danielle, their mouths agape. As she struck the final dramatic chord, a couple of older guys who had listened from the field clapped with wild enthusiasm and their dogs started to howl in response to the clapping.

“That was pretty amazing,” I told Danielle that evening. “I mean you were, like, possessed. I’ve never heard you play quite like that before.”

She grinned. “Yeah, I can start my fan club now with two aging hippies and three hound dogs.”

“You gotta start somewhere. And, hey, there’s nothing wrong with aging hippies.”



Our propeller plane landed in Lusaka. We had good weather this time, which made all the difference in the world. Our plans to connect with Amu were pretty sketchy given that the only way to communicate

with her was by letters that took a week to deliver. Danielle's plan was to find out where the water meeting was once we got to our inn in Lusaka. I thought that "water meeting" was a bit vague, but she wasn't concerned about it.

We were back in the stifling heat of the Lusaka airport. As we gathered our luggage, we were met as planned by Uncle Eric, who had been looking after the water program. Danielle gave him a hug, then paused. Something was wrong.

"Where's Amu?" she asked.

"She's fine," Eric said. "She just wasn't feeling well enough for the ride." Eric gave Danielle a note.

"Not worry, dearest Danielle. Little sick. Amu good quick. All my love, Amukusana."

I recognized the look of alarm in Danielle's eyes.

"She's really ..." Eric started to say, but Danielle cut him off.

"Uncle Eric, you're coming with me," Danielle ordered. "And Claire, dearest sister, please get two donkeys, one for Eric and one for you and me. We're going to Sempala."

"I'm not sharing a donkey, dearest sister."

"Three donkeys then."

"They're not always available," Eric cautioned.

"Eric, please just come with me. Claire will get the donkeys." I knew enough not to counter Danielle in her urgent problem-solving mode.

"Oh, and give me the printer," she added. "It's in your luggage."

"What do you need with that?"

"It will help with communication."

"What are you communicating?"

"I'll explain later. Please focus on the donkeys."



Danielle didn't want to stop to sleep so we went thirty-six hours straight on the donkeys. The diverse display of animals in our midst did not seem quite as vibrant as they had the last time, and the carpet of stars only served to illuminate my lion patrol.

We finally arrived in Sempala, and Danielle ran frantically to Amu's hut, with me just steps behind her. A few of the women recognized us and gave us animated waves. Amu was lying there, asleep, drenched in perspiration, two women sitting by her bed.

Danielle had learned enough Bemba to ask them where Amu's mom was. The women told her that she was seeking a nurse, but the answer was delivered with a look of resignation that said *We don't expect this mission to succeed*. Danielle gave Amu a hug which left Dani's T-shirt dripping wet. Amu opened her eyes and gave us a weak smile.

Danielle pulled out a mercury thermometer and stuck it in Amu's mouth along with her fingers to prevent Amu from biting down.

"102," I read off the thermometer.

Danielle then produced several devices from her knapsack. She had Amu bite on a rubber ball while she stuck a metal scraper into her throat and within a few seconds had the sample she needed. Out came several bottles with different colored liquids, and another tool to carve up the sample. One by one she put small samples into the bottles and mixed various preparations.

"She doesn't have malaria," Danielle declared after about twenty minutes. Other conclusions followed. "Negative for typhoid ... Negative for dengue and yellow fever. I do think it's viral, however."



The women tending the water machine hugged me each time I went to fetch water for Amu. We had now been up for about forty-eight hours and Danielle finally fell asleep holding Amu's hand. I accepted one of the women's offer to share her bed. I don't think anybody slept very well, with Amu wheezing and gasping for breath.

The next morning, I went to fetch more water and when I returned Danielle was holding the thermometer for me to read.

"103."

The day after that was worse. Amu was in and out of consciousness. When she was awake, she just panted and moaned.

PART ONE

As I came back with water the next morning:

“105°.”

“We have to get a nurse,” I said in a panicked voice.

“Good luck with that.” Danielle sounded surprisingly calm.

“We still have to try,” I said.

She nodded. “I’ll stay with Amu.”

I ran out of the hut and tried to ask for help, but had difficulty explaining my request, as there was no entry for nurse or doctor in my English-Bemba dictionary. I did find the word “hospital,” but when I said the word Cipatâla to the kind ladies by the water machine, they sighed and pointed far in the distance. “Mufulira,” they said.

I ran to the donkey station and caught Uncle Eric as he was grooming the largest one.

“Uncle Eric, we need to get Amu to a doctor or nurse immediately. She is sinking—or I should say her temperature is soaring. I understand there’s a hospital in Mufulira.”

“Actually, I already looked that up. It’s twenty-four hours away without stopping,” he replied. “I don’t think Amu could make a trip like that.”

“Then we have to go fetch help and bring someone back here.”

“We can try, Claire,” Eric replied, “but that’s a very small hospital, and they’re not exactly on standby to make house calls. And isn’t Amu’s mom trying to find a nurse?”

“We have to try, too,” I said. “I’ll be ready to leave in ten minutes.”

I ran to tell Danielle the plan, as fast as my feet could carry me.



But when I entered the hut, Amu was sitting up, smiling, and the color back in her face. Danielle handed me the thermometer.

“Oh my god, 99°!” I exclaimed. “It’s a miracle!”

“Miracle of modern medicine,” Danielle said.

“Medicine?” I asked.

“Ribavirin,”⁴³ Danielle replied. “It’s a strong broad-spectrum antiviral, effective against Rift Valley Fever, which is what I think she

has—probably from a mosquito. Ribavirin has a good track record in swampy areas like Sempala.”

“How did you get that? Isn’t it a prescription drug?” I asked.

She glanced away. “We’ll discuss that later. I think Amu needs some fresh air.”

Danielle helped Amu up, and she walked shakily and slowly out of the hut with Danielle holding her hand. The two girls took a slow walk to the stream, visited the water machine, got a drink of water for Amu, and then came back to the hut.

We stayed the night again in Amu’s hut, only this time the girls talked for several hours, helping each other with their English and Bemba respectively. Amu walked slowly to her suitcase and opened it. There were the two small pillows she had planned to bring to Lusaka. They had a very gentle pillow fight and fell asleep arm in arm.

This made me think of Charlie, and I started to miss him.



One of the donkeys was ill, so I ended up sharing a donkey with Danielle on the trip back. I got the front saddle and it was not as uncomfortable as I feared. As it turned out, this was a good thing, since I was easily within reach when Danielle had one of her crying fits, as twilight set on the first day of our voyage back to Lusaka.

“You seem to time these well,” I said. “I mean you don’t seem to get panic attacks when you’re engaged in a crisis.”

That seemed to distract Danielle momentarily from her crying. “I’m glad crises are good for something.”

“Well maybe. But did you ever think that you might seek crises to protect you from your panic attacks?” I added.

“Thanks, Claire, I’ll be sure to mention that to Dr. Freud the next time I see him.”

“Does Dr. Freud make house calls?”

“Okay, Dr. Sonis, then.”



PART ONE

At our usual resting spot between Sempala and Lusaka, we snuck away from Uncle Eric to find a spot in the grass to gaze at the stars. I had been too distressed to enjoy them on our donkey ride to Sempala.

I finally had a chance to ask Danielle about the medicine. “Okay, so how did you get your hands on Ribavirin? That *is* a prescription drug, right?”

“I just gave the prescription to the druggist—that’s why I needed the printer.”

“What prescription?”

“Right here,” Danielle said, unfolding a wrinkled piece of paper from her vest pocket.

“This is a prescription for your nose drops.”

“Yeah, my Nyanja is a little uncertain, so I may have made a few mistakes translating it.”

“I see. And they just handed this drug to a seven-year-old?”

“No, no, to Uncle Eric. He was the grown-up.”

“And he didn’t notice your, uh, translation errors?”

“Turns out his Nyanja is a lot rustier than his Bemba.”

“And how did you know that Ribavirin was the right drug?”

“I got the ones I thought might be needed.”

“Ones?”

“Yeah, let’s see,” Danielle said as she took her supplies from her knapsack. “Oseltamivir and Zanamivir for additional antivirals, and Amoxicillin, Ciprofloxacin, and Erythromycin for antibiotics.” The labels were all in Nyanja.

“And they gave you, er, Uncle Eric, all these drugs with one prescription?”

“Well, one at each pharmacy we went to.”

I shook my head in amazement. “What else do you have in there?” I reached into her knapsack. “Syringes of blood?” I asked.

“That’s Amu’s blood—I needed to run some additional diagnostics. Otherwise how would I know what drug to use?”

“Yes, of course,” I replied. “And where did you get all of this medical knowledge?”

“I do read, remember?”



“Good point. You never did stick to age appropriate literature,” I replied. “So, tell me, in your extensive reading, have you ever studied Zambian prison conditions?”

Danielle responded with her typical silent defiance. “Do you think I did the wrong thing?” she finally answered. “I mean, Amu wouldn’t have survived much longer with such a high fever.”

PART ONE

It was my turn to be silent for a long time. “I think you did the right thing, Danielle. I just don’t know how long we can survive with you always doing the right thing. You know, we might want to get rid of this stuff before we go through airport security in Lusaka.”

She gave me a knowing look, and took a small fold-up shovel out of her knapsack.

“Boy, you really thought of everything,” I said.

“You know they could actually use these medications in Zambia,” I added.

“Right,” Danielle replied. “We’ll just get rid of the paraphernalia. We can leave the medicines in a paper bag by the front door of the hospital near the airport.”

And so, by the light of the moon, we took turns digging a deep hole to bury the evidence of Danielle’s crime.