

The Book & Cat

A Very Dangerous Bookstore



by

Alex Hiam

*Author of Silent Lee and the Adventure of the Side Door Key
and Silent Lee and the Oxford Adventure*

About the Cats

All the cat illustrations are antique (and no longer under copyright). Many of my favorites are by an illustrator named Jean Bernard. Others are anonymous. Some of these old drawings were combined with books or other images to help them fit this story. Others were originally drawn with books because cats, books, and bookshops go waaaay back. Oh, and the illustrations that say Ex Libris are old bookplates. Book owners used to paste them into the front of their books to identify them. In this story, cats are always in the background, and occasionally they step forward to help out.

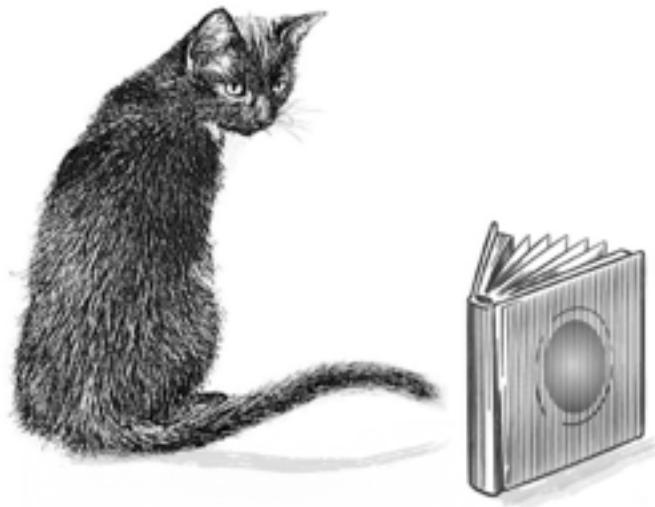




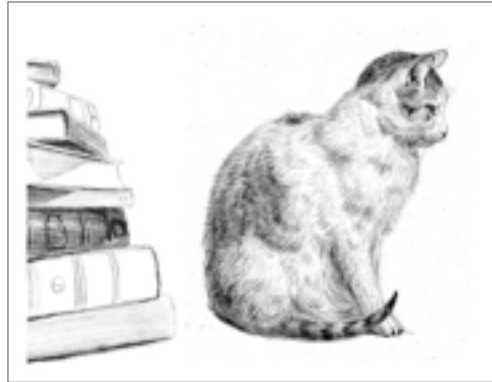
**Copyright © 2023 by Alex Hiam, c/o Webster Press,
P.O. Box 267, Putney VT 05346, all rights reserved.**



This story is about someone named Sam and how she saved the world while dodging falling pianos. It's also about books, cats, and some fairly freaky scientific equations that can open up doorways between worlds.



Forward
First Day



“You’re new.” The girl who said this was wearing black leggings and an oversized black shirt with a large pink cat wrapping around it. Her black hair was up in a high bun with shiny twisted black chopsticks through it. As if these elements weren’t quite enough to make her stand out on a crowded high school yard at recess, she was also wearing *very* high black platform heels with bright pink soles. “I’m Gina!” She announced happily. “You’re new...and not at all fashionable.”

“Definitely not,” Sam agreed. “Never have been.”

“How refreshing!” Gina took her by the arm and said, “Walk with me. I need someone to keep me from falling over in my new shoes. So, new girl, what’s your story? Why did you pop up as if by magic, three weeks past the time ordinary people start school?”

“Uh, my parents were in a car crash. Long story.”

“You have a tragic and fascinating backstory! Cool! I’ll get you to tell me all about before the semester’s over. What did you say your name was?”

“I didn’t, but it’s Sam. The, uh, cool girls didn’t talk to me at my old new school,” Sam added with a frown.

“Old new? You mean you started at another high school before you came here?”

“Yeah.”

“Don’t worry, I’m cool enough for both of us. In fact, I *am* the cool girl. Come on, I’ll introduce you to my friends. Oops!” She nearly fell but with Sam to steady her, managed to get back over her shoes and start walking again.

And that was how Sam met Gina. It was nice to know someone at her new school, and Gina really was someone. Although a freshman too, she seemed to know almost everyone by name already, and they certainly knew her. She was the most fun person Sam had ever met. Talking with her always took Sam’s mind off of her troubles, at least for a while. But that’s Gina. This story is mostly about Sam. (Or Sams, I suppose.) So, shall we get started?



Chapter 1

The Book & Cat



The bookstore's sign creaked on windy nights, keeping Sam awake in her narrow bedroom in the apartment building next door. Sam was fifteen and had recently lost her parents. As you know, this story is about her.

It is also about The Book & Cat, which was an old fashioned bookstore with a resident cat. It offered tea and scones every afternoon according to a sign in the window. But it was never open, at least not since Sam had moved onto the block. She suspected it had gone out of business.

Sometimes Sam saw a real cat, an orange tabby, looking out at her through the dusty front window. Every now and then it was outside, and it would rub against her jeans as she walked past. Of course she stopped to pat it.

The last time she stopped to say hello to the cat, she caught a glimpse of their reflection in the glass pane of the bookstore's door. There she was in her one reasonably good pair of jeans and her very worn out sneakers, leaning over to pat the orange tabby—except in the reflection it *wasn't*! Orange, that is. The reflection showed an elegant white cat with long tail and legs, not the fluffy-scruffy orange tabby that should've been reflected there. Looking down, she confirmed that she was indeed patting the tabby. When she looked at their reflection again, it had corrected itself. Frowning, she said a quick goodbye to the cat and hurried off toward the subway and her new school, rationalizing the white cat by telling herself that her eyes must've played a trick on her—but it sure was a strange trick.

The creaky old sign for The Book & Cat hung from a wooden beam above the door. It showed the orange tabby sitting on a book. Very old fashioned, Sam thought, but in a quaint and fun sort of way. The store interested her and she wanted to see what books they had. Too bad it was closed.

The mysterious reflection wasn't the only strange thing that happened in front of The Book & Cat. Another time, Sam glanced at a passing car and thought she saw herself in it. Whoever it was, they looked amazingly like her, right down to the messy black hair (except it was much shorter than hers), the quizzical thick eyebrows, and the slightly puzzled brown eyes with long lashes.

People often asked Sam ‘where she was from’—an annoying question, because of course she was from here. This country. USA. She’d grown up in a small town outside the city. However, her mother’s maternal grandparents were from the Maldives and her father had been born on an army base in Okinawa. *His* father was American, his mother Japanese. Despite having grandparents from the Maldives and Japan, Sam had never been to Asia. She’d grown up in her father’s father’s town. When she’d been forced to switch schools just a few weeks into the fall term, she signed up for Beginning Japanese, thinking it would be good to learn a language spoken by a branch of her family. Maybe being cut off from her entire family, except the eccentric cousin who’d taken her in, made her want to forge some other connection. But that’s enough about Sam’s family. She doesn’t like to talk about them.

Another strange thing Sam noticed about The Book & Cat was that the cat on the sign changed position. Sometimes it was asleep. Other times it was sitting up. And the book on the sign had a title that also was prone to change. Sam had no idea how these changes occurred. She certainly never saw anyone setting up a ladder to repaint the sign.

She started to keep track of the book names she spotted on the sign, thinking she might find one of them and try to read it. Sam had always been an avid reader. Now that she was living in an apartment without internet, a computer, a phone, or *any* electronics, books were even more important.

Sam had been staying in the spare room at her mother’s cousin’s apartment, which was right next door to the strange bookstore. His name was Slowten (an old family name), and he was a mathematician who’d dropped out of a Ph.D. program. Although he was supposed to be a genius of sorts, he made his living as an assistant cook at a French restaurant at the far end of the block. He was rarely awake when Sam left for school, and rarely home when she got back.

His apartment was a fourth floor walk-up above the Fox Street Cafe—a breakfast joint for people who worked in the neighborhood. Sometimes, when she saved up enough change, Sam went there herself and ordered the blue plate special: two fried eggs with fried potatoes and toast. It usually came with coffee, but they knew her there and substituted orange juice at no extra cost.

Almost everyone on the block knew Sam by now, either because they’d seen the accident or heard about it from someone who had. And anyway, she was the one and only young person living on that block. It wasn’t a family neighborhood.

Chapter 2

How Sam Came to Live There



The day of the disappearance, Sam and her parents were on their way to the Repository for Art Treasures, R.A.T. for short, a lesser known museum in the heart of the old city.

It was a Saturday morning in early autumn. It was raining. The wiper blades squeaked like rats, Sam thought, annoying her as she tried to concentrate on her book in the back seat. She remembered that quite distinctly. For some reason, it's often the oddest little details that stick in your memory after an accident.

Her mother said, "Let's go down Fox Street."

Her father said, "It's probably a dead end. Let's not."

But her mother insisted. "It's not, and I'd like to see it, dear. I have a cousin who lives there. Dropped out of an astrophysics program at the Sorbonne just before graduating. Very eccentric man. Do you remember him? We haven't seen him since our wedding."

"Might be best to keep it that way," her dad grumbled, but he turned down Fox Street.

Almost at once, the car skidded on the wet road and rear ended a dark green florist's truck that was live parked.

The book Sam was reading flew out of her hands and disappeared.

The car was too old to have seat belts. She must have hit her head on the back of the seat in front of her.

She found herself gasping awake. She was on her back, wedged down low where your feet are supposed to go. There was an unpleasant taste of blood on her lips. She realized that her nose was bleeding and one of her wrists was sprained. "Mom? Dad? What happened?"

There was no answer.

She pulled herself up despite the pain in her wrist and looked around.

The front seats were empty. She thought her parents must have gone for help.

Some time later, when two policemen and a firewoman with a heavy metal pry bar had forced a door open and helped her out, she had to accept the fact that her parents seemed to have disappeared.

"They *were* here," she insisted.

“Did you take their car out for a spin?” one of the policemen demanded.

“What!? Me? Of course not!” But she had to admit the evidence was against her. The car doors had been jammed by the accident, so how could anyone get out? And even if they had, why would they leave the scene of the accident while their daughter was unconscious?

The car was totaled. A woman in tall, bright yellow rubber work boots came and winched it onto a truck and took it away. Sam was sad to see it go. It was as much a part of her family as her parents were. It was an old Citroen sedan her parents had bought used while on their honeymoon in France, and for some reason, shipped home across the ocean when they returned. They’d driven it ever since (they shared the car). Sam had grown up with it.

After it became clear that her parents could not be reached by phone, the police quizzed her about other relatives, and soon some of her aunts and uncles began to arrive.

The aunts and uncles were more inclined to believe her. They knew her parents well enough to doubt they would ever allow Sam to drive herself to the city. But where *were* they? What could have *happened* to them?

By nightfall, it was raining even harder and the bookstore’s sign was blowing madly back and forth. The police had taken a report and left, and her aunts and uncles were thinking about their cozy homes and hot dinners. “Let’s leave her with her mother’s cousin ’til they turn up,” one of them said. “The tall one with the chalk on his hands who didn’t dress up for their wedding, remember? Doesn’t he live around here?” And so they’d roused Slowten out of his armchair (where he usually sat thinking about equations when he wasn’t at the restaurant), and before either he or Sam had a chance to object, she’d been left with him.

Slowten Brand was a thin, tall, balding man. He worked at Goupil, the French restaurant on the corner of Fox Street and Washington Way. The restaurant attracted wealthy customers from fancier parts of the city, and Slow was paid well enough as an assistant chef to afford a two bedroom walk-up with its own bathroom. The second bedroom had nothing in it but an old cot and a torn window shade, but at least it allowed Sam to get out of the rain and lie down. Her head still hurt terribly.

Oddly, none of the relatives had offered to drive her back home to pack. They must have expected it to be a very temporary arrangement, she supposed. And they didn’t like to come to the city. Her mother was the only one in the family to take an interest in art museums and the ballet and the airport and all those other things that you can’t find in a small town.

Sam’s parents, it turned out, had set up auto-pay for the household bills and expenses. The house pretty much took care of itself without them, and so Sam’s aunts and uncles left it alone, except for when Uncle Max came by to mow the tiny front lawn.

They expected Sam’s parents to return soon and reclaim their house and daughter, but they didn’t. After a month or so, when it was obvious that the situation was becoming

more permanent, Aunt Grace finally drove back into the city, picked Sam up, and brought her home to fetch some belongings.

However, Sam, who was in a growth spurt, could no longer wear most of her old clothes. And besides, everything smelled musty and forgotten and the house deeply depressed her—especially the oddly cheerful photos of her with her parents from happier times.

When she opened the fridge door, she wished she hadn't. There was a container of spoiled milk and various rotten things she couldn't identify. She shut it and left the kitchen. Going upstairs to her old bedroom, she packed some T shirts, socks, and her longest pair of jeans, then ran back downstairs, grabbed the change jar, and hurried out to the car where Aunt Grace was waiting. "You can drop me at the station," Sam told her. "I'll take the train downtown."

Aunt Grace, who worked at the local elementary school, had seven children of her own along with rabbits, guppies, and poorly behaved dogs, which may be why she smiled and said, "That's nice of you, dear. I'm terribly late for, well, everything!"

That was the last time Sam had seen her old house. She supposed it must still be there waiting, but she did not know for what.



Chapter 3 A New Life



Slowten worked evenings and came home after Sam went to bed. Weekdays, she got up and stocked her lunchbox from the leftovers he'd brought home the previous night: Baguette slices with ripe brie or champfleury cheese, perhaps a slice of bacon-and-onion tart, or a leftover but still delicious *salade Nicoise*. And sometimes *pot de crème* for desert! (The little white porcelain pot was borrowed from the restaurant, to be smuggled back empty the next day). Other kids brought bento boxes or PB&J sandwiches to school, but Sam dined exclusively on French restaurant leftovers.

Slowten did not cook at home and he never bought groceries. His little fridge was only used to store leftovers from the restaurant. When Sam moved in, he simply brought more leftovers home.

Aunt Grace had spoken to the secretary at Sam's school where she'd just started ninth grade that fall. They sent her school records, such as they were, to the high school nearest Slowten's apartment. That was it. No goodbyes or followups to see how she was doing. And, since she lacked a cell phone (her parents didn't believe in them), she got no news from her old classmates and friends. It was an unexpected and absolute break from everyone and everything she knew.

She'd hoped to retrieve her family's laptop when she went home to get her things, but it turned out that Aunt Grace's family had 'borrowed' it. Oh well.

Sam rode the subway into Japantown every morning. That's where the new high school was. Many of her new classmates were from Japanese American families and some of them had grandparents who liked to make them traditional lunches, hence the bento boxes. Sometimes she traded Brie or Camembert for sushi. Some of them asked her if she'd come from France. She just shook her head. It was too complicated to explain about Slowten and the leftovers.

People were friendly enough at her new school, and one girl, Gina, took her under her wing. But Sam avoided most of their questions. And, while friendly when people were nice to her, Sam never invited *anyone*, not even Gina, to visit 'her' apartment. It wasn't really hers, after all, was it? Clothing from second hand stores and a stack of used books were the only things she could call her own.

Slowten was not much of a decorator. He owned two stools, which were pulled up to a stretch of kitchen counter so you could eat there without having to stand up. As for decorations, he had exactly one picture. It was the Eiffel Tower and it hung behind his big, red armchair. Across the room was a very long chalkboard, his prize possession, where he scribbled equations.

Since he obviously liked math, Sam decided to ask him for help with her algebra homework. He'd been off that night and reading in his chair, but he set his book aside, pushed his thick, scratched glasses up his long nose, and frowned thoughtfully at her homework sheet. "These equations are meaningless," he finally said.

"I'm, uh, supposed to solve for X, but do I simplify the fractions first? And what do I do with the negative numbers?"

"You are living at the nexus of dozens of gravitational waves, and you want to know what X is?" he demanded.

"Uh, I guess so. The part about X at least."

"X is meaningless. Don't bother." He crumpled the homework sheet and tossed it into a dusty corner.

"Right!" she snapped as she retrieved it and tried to flatten it. "I'll just do it myself!" It was the last time she asked him for help.

It's true that there were no families on the block, but still, Sam did make some friends. There was Mr. Twitchette from The Literary Lamppost, a block over. Unlike The Book & Cat, this store was open regularly. Mr. T (as Sam came to call him) sold a wide variety of used books. He'd set aside books he thought would interest her, and he usually found some excuse to mark them down to his store's *Damaged for a Dollar* discount price. "It's a first edition of *A Girl of the Limberlost*, my dear, but the corner's bumped," he'd say with a smile. And it was usually a good book, although invariably one that was fifty to a hundred years older than she was. Mr. T favored books from *his* childhood.

Not all of her neighborhood friends were old. At the French restaurant, she was befriended by the youngest of the waitresses, Amelie. It happened a couple months after she'd arrived at Slow's, near the beginning of November.

It was snowing lightly—the first real snow of the season. Sam came home from school shivering and wishing she had something more suitable than her old sneakers and the light hoodie she'd been wearing on the day of the accident. When she let herself into the apartment, she was surprised to be able to see her breath. She put her books down, rubbed her hands together, and tried to remember how Slowten worked the heat. There was a big silver radiator, rusty in spots, that hissed and steamed in cold weather. She went over to look at it. It was cold and silent, so she tried to turn the valve on the pipe next to it. The handle wouldn't budge, but it hardly mattered because the pipe was cold, too. Something had gone wrong down in the basement where the boiler was, she supposed. But what to do about it?

First she tried the Super's door, but no one answered. Then she went downstairs to the Fox Street Cafe (on the first floor of the building) to see if they had heat. They did, so the boiler wasn't broken. It was just Slowten's radiator.

She went back up and thought she'd wait 'til Slowten got home, but she was shivering too hard to do her homework, so she decided to go find him.

The French restaurant was at the far end of the block. Pulling her hood up against the wet snow, she hurried down the sidewalk, passing beneath the Book & Cat sign. The cat on the sign was licking a paw. That was new, but it was too cold to wonder about such oddities. She hurried on.

At the far end of the block, light flooded out into the night and an enchanting aroma of good food mingled with the crisp smell of fresh snow. She pushed the door open—and felt immediately and horribly out of place. Hesitating in the entry, she stared at the elegantly dressed guests and elegantly set tables, wondering where Slowten could be.

A tuxedoed man with condescending eyebrows came toward her, pulling a young waitress along. “Dispense with this street urchin at once,” he hissed.

“You cannot be here,” the waitress said, her accent thickly Parisian. “*Je m'excuse.*”

“But I'm looking for my, uh, guardian.”

“It sounds like a Victor Hugo novel,” The waitress exclaimed, looking amused, but still pushing Sam gently backward. “Is your name Cosette?”

“No. I'm Sam, and he's...” she peered over the waitress's shoulder toward the tables, “not a customer. He's a cook.”

“That explains why no *sens de la mode*. Fashion,” she translated when Sam looked confused. “I will show you to the kitchen. No one cares about fashion there. But not through the restaurant,” she hastened to add as she hurried Sam out the front door. “Monsieur Diable, the maître d'hôtel, will insist we go around. *Plus vite*, my dress is getting wet!” she complained as they hurried down the little alley beside the restaurant through the snow.

“*Diable*? Doesn't that mean devil?” Sam asked.

“I am afraid it is so,” she said. “In here, *rapidement!*” And then they were shaking the snow off as they hurried through a narrow back door.

The kitchen was the opposite of the dining room. Hot and noisy, it was dominated by barely controlled chaos. Gas burners hissed. Saucepans sizzled. Men with tall white hats waved whisks and barked orders at hatless men in crisp white aprons. These, the prep cooks, chopped, rolled, and sliced as fast as they could.

The young waitress hurried through the kitchen and out a pair of swinging doors, leaving Sam in the midst of the orchestrated madness. As she stood gaping, the head chef, so Sam assumed from his swagger, raised a sardonic eyebrow over a glittering dark

eye and, apparently deciding she might be of some small use, threw her an apron. “You! Canapés! Now!”

Slowten came out of a storage room carrying a tray. He moved gracefully, unruffled by the frantic activity all around him (giving Sam new insight into why people called him Slow). “I’ll show her,” he said. And then, before she knew quite what had happened, she was in the apron, her hair pulled back with a spare piece of string, and working next to him at a metal table.

“No, they must look elegant. Slice, don’t chop,” he said.

“The heat’s off and I—”

“Center the vegetables on each pastry.”

“I have to do my homework. Can you help me—”

“More meaningless equations?” he interrupted as he continued to slice vegetables.

“They’re not meaningless to me,” Sam said. “I don’t want to flunk.”

“Ask the cat.”

“What?” The kitchen was noisy and she hadn’t heard him right.

“I said, not like that! Yes, that’s better. Now, finish them off with a little aioli.”

“Did you hear what I said about the heat?”

“Off again?” He shrugged. “The Super may have closed our supply valve. I’ll have to sneak into the basement and turn it on. Is he home?”

“I knocked on his door but he didn’t answer.”

“He goes out most nights. No, just a half dozen on each plate, centered on the doily.”

“Why did he turn the heat off?”

“Rent. I must’ve forgotten it again.”

She ended up working for more than an hour in the welcoming heat of the kitchen. Finally Slowten pulled her toward the exit. “I’m going to slip out early with you and get the heat going. Wait, take your apron off and toss it in the hamper. Okay, let’s go.”

As they walked back, hunched against thick snowflakes, she was surprised to see the orange tabby come out of the shadows and brush his snowy back against her damp jeans. “Hi there,” she said, pausing to scratch between his ears for a moment before hurrying to catch up with Slowten, who was holding the door for her. “Do you know the owner of that store?” she asked.

“The Book & Cat? Funny place,” He said. “Now please be quiet in case the Superintendent’s back.”

They tiptoed downstairs to a metal basement door, where Slowten worked over an old lock in the dark. It sounded like he was using his pocket knife. When the door swung open, he whispered, “Wait here.”

The basement hummed with mechanical sounds. Something squeaked repeatedly. *He’s opening the valve*, she thought. And then he was back and re-locking the door.

“Whose cat is it? She asked as they climbed upstairs. “Does it live at the store?”

“Which store?” he asked vaguely.

“The Book & Cat, of course. It's always closed. Do you know who owns it?”

“Met him once,” was all he had to say as they climbed up the four flights of dusty wooden stairs. But that was typical. He was not much of a conversationalist.

After that, sometimes there would be a note from Slow on the table when she got home from school: ‘Come in and help. Tonight will be busy.’ Or, ‘Two prep cooks out sick, come as soon as you can.’ Always something curt and matter of fact. And bit by bit, she found herself learning quite a lot about French cooking.

One day, as she yawned through her history class after a late night at the restaurant, she realized that Slowten often spoke to her when they were cooking together, which was more than she could say about him on the rare occasions when they were both in the apartment.

She enjoyed working at Goupil. It was hard work, but fun. And it was fun that Amalie would sometimes grab her and pull her out the back door, where they would stand in the alley and talk and laugh. Sam loved to hear Amalie gossip about the waiters and cooks. They often laughed so hard that it was difficult to stop when it was time to go back inside.

“You are too funny, *mon petite pipit*,” Amalie would say, “but we must go back to work or the *Chef de Cuisine* will stuff us and roast us like chubby little *ortolans*.” Sam did not always understand Amalie, but she always enjoyed her company.

Then there was Gina, the crazy girl who befriended Sam at school, but Sam didn't usually talk about her. In fact, Sam was not much of a talker herself.

Chapter 4 Settling In



“The Mystery of the Platinum Piano,” Sam said.

“That's the title? Are you certain?” the librarian replied, looking skeptical.

“I'm afraid so,” Sam said with a frown. She had thought it strange enough to be worth looking up. It had been clearly visible when she glanced at The Book & Cat's sign on her way to school that day, so she stopped at the stern little public library on the way home to do some research.

“Do you know the author?” the librarian demanded.

“Uh, no. It was too small to read from a distance.”

“You only saw the book from a distance?” The librarian slid her glasses down her nose and studied Sam over them.

“Yes. Can you check for it?”

“If you insist, although...” She studied her computer screen. “As I thought. Doesn't exist. Are you *certain* you—”

“Yes. Thanks. I'll just browse for something else to read.”

Ah, excuse me, but before you go into the stacks, may I please see your library card?”

“We went through this last week,” Sam pointed out. “I don't have one and you won't give me one because I don't have a birth certificate or social security card. Like I said last week, I left home unexpectedly, but I don't plan to check anything out. I just want to read here.”

The librarian removed her glasses entirely and squinted at Sam. “I recall. And I must ask, how can you possibly have no identification? Are you an alien?”

“Like, from Mars? Or do you mean an illegal alien from, say, the Republic of Maldives?”

“*Are* you from the Maldives? If so, and you lack proper paperwork, you'll have to go back right away.” The librarian pursed her lips in disapproval.

“Gladly, and I plan to take as many library books with me as possible!” Sam spun on her heel and stomped away, trying to slam the door, except it was on springs and it refused to be hurried.

“The b— witch!” she muttered, correcting herself. Her father and mother had disapproved of cursing, and she still tried to live up to their standards.

Before her parents disappeared, before she found herself living with Slowten, she’d had her own library card and the public library had been just a short ride from her house. She wondered if her bike was stolen, or if it was still leaning against the side of the house where she’d left it. It had a wicker basket hanging from the handlebars and every Saturday morning she’d fill the basket with last week’s library books and go pick up a new batch. She had always been a voracious reader, especially fiction. She used to like the way anything can happen in novels. Now that her life had taken a stranger-than-fiction turn, she was less enamored of the fantastical; but she still loved a good book.

Clearly, the oddly mean librarian at the so-called public library in her new neighborhood was not going to support her reading habit, and the library at her new school was only to be used for supervised research. Unsupervised students were no longer allowed after someone graffitied a whale along the spines of a row of books about ocean life, which Sam thought was brilliant—but the Principal did not. (It wasn’t Sam. It might’ve been her friend Gina though.) This left Sam no choice but to purchase used books from Mr. Twitchette, which was, even with his friendly discounts, a challenge. While Slowten provided her room and board, he didn’t offer financial assistance and she didn’t ask. His wages seemed to go almost entirely to rent.

She was in the habit of noticing lost coins on the sidewalk. The dimes and quarters added up, and even pennies were worth collecting. (For some reason, she almost never found nickels—maybe people didn’t use them?) Also, she got in the habit of very early morning walks on recycling days (Thursday on her side of the street, Friday on the opposite side). Most buildings had big bins for containers and most people tossed their returnables in the bins, not caring to go to the trouble of taking them to a return center just to collect the five cents.

There wasn’t anywhere to return bottles and cans within walking distance, but Sam spotted an elderly gentleman driving an elderly wood-sided station wagon. He was gathering discarded objects from the curbside trash for his Sunday morning tag sales. He explained that he was getting too old to go through the bins for returnables, but that if she’d collect them, he’d redeem them and split the profit. And so it went: She would fill a trash bag with cans and bottles and be waiting for him each Friday morning when he drove by. She’d give him the new bag and he’d hand over her earnings from the previous week. It was only a few dollars, but it helped.

Her earnings went up after she started working at the French restaurant, although not as much as she’d hoped. The first Friday she was in the kitchen, the manager, a terrier of a man with wiry gray curls, rounded on her and growled, “in what universe do you think you’re old enough to collect a paycheck!?”

After he went back upstairs to his office, Slow and the other prep cooks discussed giving her something out of their pay.

“She makes it easier for all of us,” Slim pointed out, offering her a dollar bill and a handful of change from the bottom of his pocket.

“When she's here, the head chef shouts at her instead of me,” Jan added, offering Sam a wrinkled five.

Others chipped in one or two dollars and Slowten dug a fiver out of his wallet. That weekend, she bought herself a used parka, a used pair of rubber boots with only a few very small holes, and several used novels. Her luck, she felt, was finally beginning to change.

Mr. T at the bookstore had not heard of *The Platinum Piano Mystery* either. “Sorry, my dear,” he said when she asked him on the way home from school the next day.

It was a silly sounding book anyway, Sam thought. Even if it existed, I doubt I'd want to read it. Obviously nobody makes pianos out of platinum!

When she stopped to study the Book & Cat's sign on the way to school the next morning, the name on the book had changed to *Follow the Cat*, which struck her as more enticing. However, the door to the store was locked as usual and there was no one visible though the dusty windows, not even the cat.

Shrugging, she turned and headed down the sidewalk, which was frosted with icy snow. She was pleased to be wearing boots for a change. At least her toes weren't as cold as usual.

She'd been there in that strange new world for three months. Three months without any sign of her parents. Suspended there waiting until, by now, it seemed highly unlikely that her life would ever go back to how it used to be.

She tried not to think about it. About *them*. She just kept going to school, going back 'home' such as it was, doing her homework, and helping at the restaurant. On weekends the restaurant was especially busy and Sam went in early and stayed late, like Slowten did. It was much better than being alone in the apartment with nothing to do but think about where her parents could possibly be.

On Mondays the restaurant was closed and on Tuesdays it was so slow that she was not needed. That was when she found herself alone with her thoughts for long hours, with nothing but her homework and a stack of old novels to distract her.

Chapter 5 The Dream



One quiet Monday night in November, Sam fell asleep early, still in her jeans and flannel shirt. She'd only gotten as far as taking her boots and socks off. As usual, she had not been needed at the restaurant.

She had *tried* to busy herself on an essay about colonial history in the Americas, but struggled over her first draft until sleep overtook her and she dozed on her narrow bed with her head uncomfortably pressed onto her history textbook instead of her pillow.

Then she sat up in the darkness. The room was shaking! Earthquake!!

She stumbled out of her bedroom. The picture of the Eiffel tower swung wildly on its hook, then fell with a splintering smash.

She shouted for Slowten, but he didn't answer. His bedroom door was open and swinging. *Not home yet*, she thought.

The floor lurched and the building creaked and groaned. *I have to get out of here!* her thoughts continued. She stumbled across the room. Panting and frantic, she rushed downstairs as the building shook.

Outside, she found herself standing on the freezing cold sidewalk in bare feet. It was quiet. The whole block seemed to be asleep. But at least the ground wasn't shaking! Wait, why wasn't it?

She looked around, puzzled, expecting to see other people hurrying outside. *Could everyone else have slept through it?* she wondered.

The door to Slowten's apartment building was just to the right of the wide glass window of the Fox Street Cafe, which of course was dark at that hour. However, she could see that a large crack had appeared in it. She frowned. They wouldn't be happy about that when they came in before dawn to prep for the breakfast crowd, would they?

She noticed that the crack ran through the name painted on the window. And, crack or no, it definitely did *not* read, *Fox Street Cafe*, like it was supposed to. Instead, it spelled out something completely different. She read it again, just to be sure.

Yes, it definitely read, *Sable Street Bistro*. Huh?! What's more, instead of the red silhouette of a bushy-tailed fox above the name, there was a leaner animal with shorter legs and a thin tail. *Must be a sable*, she thought. *What an odd prank for someone to do! They'd have had to scrape the lettering off and repaint it.*

Sometimes graffiti tags appeared overnight and had to be scrubbed off in the morning, but she'd never heard of a graffiti artist who specialized in renaming cafes.

Then a thought struck her and she turned to look up the block toward the nearest cross street, where a signpost was lit by a flickering streetlight. Her eyes opened wide as she read it. Instead of Fox Street, it said Sable Street! *Who*, she thought, *would not only change the name of the cafe but also the corresponding street sign?* It seemed a difficult and strangely pointless prank. *Ow*, she added, hopping from foot to foot. *It sure is cold out here! I wonder if it's safe to go in?*

The street was oddly quiet for the aftermath of an earthquake. *Maybe it wasn't that big of a quake*, she thought, *and I was silly to run outside*. Her feet were awfully cold. She decided to go back in. But then she noticed the old olive-green Citroen DS sedan parked in front of the Book & Cat (which seemed finally to have its lights on, so that one side of the car was illuminated).

Most people would not have recognized such an obscure model. It had not been manufactured for many years and had never been common in the U.S. But Sam recognized it at once! It was the very model her parents had driven, right down to the somewhat faded green exterior with the white roof and the distinctive mid-century-modern curves.

She stumbled toward it, her mind feeling even more numb than her feet.

Another moment of shock, this one even greater, when she leaned over and peered through the side windows. The worn upholstery was the same color she remembered it to be, although the car was considerably neater inside than her parents' car had been. In fact, the only personal item in the car was a paperback novel on the rear seat. And...

She felt faint and dizzy and had to reach out a hand to steady herself as she recognized the book's cover. It was *the exact same novel she'd been reading when the accident happened*, and it was a rather unusual novel too. In fact, she was the only person she knew who had read it: *The Strange Library* by Haruki Murakami. She'd always wondered how the book ended, but had never known since it had disappeared along with her parents.

A sudden wild and irrational hope sprang up in her and she turned to scan the empty street. Could they...? No. Her parents were not there.

It's got to be a coincidence, she told herself. *Or multiple coincidences all at once?*
Prrrrr. The orange tabby rubbed against her legs.

"At least *you're* your normal self," she said as she leaned down to stroke its back. But her hand touched a mix of expected fur and something quite *unexpected*: Two leathery things folded into the fur of the cat's back. She pulled her hand away quickly. "What the—?" She exclaimed.

The cat meowed and trotted across the sidewalk toward the warmly lit bookstore. As it hopped onto the stone step of the entry, long, leathery wings unfolded and began to

beat the air. And then it rose upward and hovered in front of the window before circling to land neatly on top of the sign.

The sign which now said, *The Book & Bat*.

And on the sign, neatly painted, was a picture of an orange tabby cat with bat wings spread, sitting smugly on top of a book.

“*What in the world is going on?*” Sam demanded of the cold night around her. “Am I dreaming?” But the mix of shooting pains and growing numbness down in her feet told her she was not asleep.

That's when the door of the Book & Cat, correction Book & Bat, creaked and jangled open.

Someone her same height and build was standing silhouetted in the door and calling, “Here, Batty! Come in! I'm locking up for the night.”

As the tabby whatever-it-was swooped down and sped through the door on its clever wings, the boy in the doorway noticed Sam. “Hey,” he said. “What are you doing out there? Are you trying to break into our car?”

“*Your* car?” She repeated, staring at him. She was still thinking of it as her car, but that was hardly the only thing confusing her. There was something about his voice, his intonation, his appearance... In fact, almost everything about him seemed oddly and strangely and intimately and weirdly *familiar*. It was almost as if she were seeing herself. Except that he had short hair and his build was more boyish and his voice more boyish and, apparently, he *was* a boy.

“Wait, you look... You look like...” He seemed equally stunned.

“Like you? She finished.

He nodded slowly. “Who *are* you?”

“Who are *you!*” She demanded. “And where did you get this car?”

“Car? Uh, my parents got it in France on their honeymoon.”

“*Your* parents.... Wait, who are your parents??”

“Hey, why are you in bare feet?” He asked. “Are you homeless?”

“No! Well, kind of, actually, but, wait, didn't you feel the earthquake?”

“What are you talking about?”

“The earthquake! And why does your cat have wings?”

“What's a cat?”

“Your, uh, pet.”

“Batty? He's our bat. He's an orange tabby. Are you all right?”

I don't think so.” She realized that she did not feel well. Her head was spinning and there was no denying that her feet were brutally cold. She tried hopping from one to the other again, but it didn't help.

“Uh, do you want to come in for a minute? I could lend you a pair of sneakers,” he said.

“Sneakers?!?” she repeated, sounding as if she was suspicious that they, too, might have wings. “Uh, well, actually...” Her feet *were* in severe pain and she was shivering all over. She collected her wits enough to hurry across the sidewalk and follow him in the door. “I’ve always wanted to see what’s inside,” she blurted out as the door swung closed behind them. “But it’s always closed.”

“We open at nine p.m. and close at one a.m.,” he said. “Night books. See?” He gestured toward the nearest book-lined shelf.

“What’s a *night* book?” She demanded.

“For night reading, of course,” he said. “People come here when they’re having trouble sleeping or they just want to stock up on bedtime stories.”

Frowning, she paused to pull a book off a shelf. *The Charge of the Night Brigade*, the cover said. She opened it. It seemed to be an ordinary book. Boring, even. She put it back between books whose titles read *Thirteenth Night* and *Tender is the Night Steak*. “I don’t get it,” she complained.

“Don’t you read?” He asked.

“Of course!”

“Well, a lot of people want to shop for a book to read at night. It’s a fun custom, don’t you think?”

“I think it’s odd that you look so much like me.”

“Coincidence?” He asked, frowning. “What size shoe?”

“Me? Oh. Um, six. Girl’s six.”

“I wear size G. I haven’t heard of number sizes. European?”

“Uh, I really should go.” She turned back but he caught her by the arm. “Wait, what’s your name? Where are you from?”

She extracted herself from his grip as quickly as she could, which was very quickly because he pulled back too, saying *ow!* He’d given her a strong static-electric shock. “Sorry about that,” he said.

“No problem. I’m Sam,” she said. “From two doors down. You?”

“I live upstairs. My parents run the bookstore. I help.” He frowned.

“I see,” she said. “And your name?”

“That’s just it. I mean, how many coincidences can there be before you have to think of some other explanation?”

“No way!” Sam said.

“Yes way. I thought it was a boy’s name,” he added. “Sam, short for Samuel.”

“Sam, short for Samantha,” Sam said, staring at him. “How could we be so similar?”

“I don’t know. Hang on, I’ll get those sneakers.” He turned and left her standing there beside the night books while he hurried through a narrow door and up a winding staircase, or at least that’s what it sounded like. Then he came hurrying back down. He

had a pair of black sneakers in hand, not too badly used. They looked a lot like the ones he was wearing.

“You have two pairs?” She asked. It was a stupid question. Obviously he did, but it seemed a surprising luxury to her.

“I don’t need two pairs,” he said. “And you’re going to need these,” he added with a glance toward the front window. “It’s beginning to snow.”

She looked over her shoulder through the big front window, where she could see dancing white flakes against the night. Balancing on one cold foot, she pulled a sneaker on. It fit perfectly. Soon she had them both on and tied. She looked at him again. “Um, can I ask you—”

A loud pounding on the window interrupted her.

“Goddess darn it, he’ll break the window!” the boy exclaimed, hurrying past her.

She followed, staring in surprise. It was Slowten pounding on the glass.

The boy wrenched the door open and shouted, “Do you mind!”

“Slowten?” Sam asked as she came up to stand beside the boy in the doorway. It *was* Slowten, it *had* to be, but he was in an unfamiliar coat, long and expensive-looking with a fur fringed hood. And he had a long, neatly trimmed...beard! *When did he have time to grow that?* She stared at him, her mouth once again hanging foolishly open.

“You don’t belong here,” he snapped. “You shouldn’t have come.” He reached forward and tugged her out onto the sidewalk.

The snow was coming down thickly and the sneakers were flat soled. She slipped and nearly fell, but his grip steadied her. “This way, hurry!” he cried, and then they were running down the sidewalk away from the now partially snow-covered Citroen and the startled boy leaning out the doorway of the Book & Bat.

Where did *you* come from?” she demanded.

He came to an abrupt stop in front of their entry. “Here?”

“We live here, if that’s what you mean. When did you grow that beard and where were you during the earthquake? Unless...” *Could he be a double too?* she wondered.

He fingered his beard and studied the cracked glass of the Sable Street Bistro. “Is that right?” He asked.

“The sign? No, of course not.”

“Then what are you doing here? It can’t have just been an innocent accident,” he added, speaking to himself. Now he turned to address her again. “I’m going to send you back.” He fished through a deep pocket and produced a stub of white chalk. Muttering, he began to scribble a complex mathematical equation on the door.

“What are you doing?” She demanded.

“Look, someone must’ve used an opening equation. Does my double write equations in your world?”

“*My* world?” She repeated, staring at him.

“*Does* he?” he demanded as he scribbled.

“Of course! On your, uh, a, chalk board.”

He paused and turned toward her. “My double must have been very careless. Am I a successful sage in your world too?”

“A what?”

He arched an eyebrow. “No?”

“You're, well, I wouldn't say successful,” she admitted. “But you're a good prep cook.” She stared at the strangely familiar and unfamiliar man. “Is there more than one version of each of us?”

“I'm a *cook*?” He paused and turned toward her, chalk still in hand. He seemed outraged. “Absurd! What a waste of talent. In you go now, and when you get home, tell that incompetent bungler to erase his half-baked equations and not to meddle in my work.” Then he added a swooping mark beneath his equation and slipped the chalk back into his pocket.

The sidewalk began to vibrate. Something rumbled ominously. The crack in the plate glass window lengthened. “Now!” He shouted, swinging the door open and pushing her inside.

The building was shaking again. She turned to go back out, fearful that it might come down on her, but the man who looked like Slowten was blocking the door and wouldn't let her open it. “Hey!” she shouted, and then an extra big shake knocked her over and she fell hard on the white and black tiles of the entry.

When she got back up, everything was quiet and the man was gone. She stepped outside in her borrowed black sneakers and looked down the block to where the Book & Cat sign hung over the dark window. An older Toyota Corolla, dark blue, was parked where the green Citroen had been. It was cold, but there was no snow.

Chapter 6

The Purple Armchair



Sam stumbled up the four flights of stairs, panting and dizzy. She felt oddly weak. Then again, she reminded herself, she'd just had a major shock. Actually, quite a few of them in rapid succession. Her head was spinning.

But at least the building wasn't shaking. The stairs were as usual too, which is to say, creaky, splintery, unlit and not at all clean. She told herself that things seemed to be normal again, at least if she could call her life here normal.

The door to the apartment was ajar. She peaked in, expecting broken glass and disarray, but nothing was out of place. Even the picture of the Eiffel Tower was back in its proper spot on the wall. *Huh?*

She closed the door and came slowly into the dim room (she hadn't turned on any lights when she'd rushed out, but the streetlights down below always cast their tint through the windows and onto the dingy ceiling). The galley kitchen seemed back to normal, too, and yet she distinctly recalled hearing plates and mugs falling from their shelf and the silverware drawer smashing to the floor.

Slowten's bedroom door was still ajar. She called him.

Something stirred in the shadows of the living room, over where his big, red armchair stood. He was in it. His legs were stretched out and his head was back as if he'd been asleep, but he sat up straighter and said, "What are you doing up?"

She came over, frowning. "Where were you during the earthquake?"

He reached out and clicked the floor lamp on.

Sam screamed.

She hadn't meant to and her hand flew to her mouth to stifle the sound almost at once, but her eyes were wide with surprise.

"What?!" He demanded.

"Your chair! It's *purple!*"

"So it is," he said, frowning as he looked down at it. "So it is." He got to his feet and stood studying it. "I had an odd dream," he added. "I suppose it comes from staying up late, working on equations. Or maybe it was something more than a dream."

“It was definitely more than a dream! And someone who looked like you said not to be so careless with equations. Were you? Careless, I mean?” Sam stared at him.

“Was I... Wait, this man. How much like me was he?”

“Aside from the beard, just like you, but he seemed surprised you're a cook.”

“A double! Do you know what this means? I finally got it right, Sam!” He jumped up and went over to study the extensive scribbles on his chalkboard. “It took me twelve years to complete this proof,” he said. “Twelve long years!” He turned toward her. “Where did you meet him? Was he in my chair?”

“No one was in your chair. I saw him on the sidewalk. I ran outside because of the earthquake, like I told you. Then... It's a long story.” She sat down with a *plump* in the middle of the floor, feeling overwhelmed and dizzy.

He sat back down in the purple armchair. “Hmm,” he said. “It's comfortable. But I wonder where *my* chair is. Do you think my double is sitting in it?” He ran a hand over one of the arms. “This is probably the first chair ever to cross between parallel reality planes. I should donate it to the Smithsonian.”

Sam snorted. “Right. Like anyone would believe you.”

“You went there! What did you see?”

She shook her head and frowned. What *had* she seen? It was all so confusing and strange. “Did you know they say Goddess when they swear, not God?” She said.

“Who?”

“The people I bumped into! At the Book & Cat except the cat had wings and they called it a bat. Goddesses and bats,” she repeated, shaking her head. “Unbelievable.”

“Unbelievable is exactly what my dissertation committee said when they threw me out. I'll have to write them at once!” He rubbed his bony hands together. “Maybe I can get this double of mine to coauthor a paper. Now *that* would be a first. Probably a shoe-in for a Nobel Prize, don't you think?”

“They still won't believe you,” she said.

“What else did you see?”

“I saw their car. I'm sure it was theirs. It even had my book in it! How can that be? It was crushed and towed away for scrap. Not the book, the car. Well, probably the book too.”

“What car? Was there an accident?”

“That day when I first came here! Had you been working on your equations?” She eyed him suspiciously.

He frowned. “I don't recall. What was the date? Do you remember?” He got to his feet and approached the board.

“Do I remember the date my parents disappeared? Of course!” She rattled it off for him.

“Whenever I make significant progress, I date the work,” he said. He squinted at his scribbled equations. “Yes, that was the day I wrote this line.” He drew a circle around

it. "It models what might happen if three gravitational waves meet like a triangle and stabilize under mutual tension. Theoretically, stabilized or so-called standing waves might form a hole in the space-time plane." He tapped at a triangular symbol. "Delta usually means change, but in this equation I call it *flux*, which I define as the capacity for switching between parallel realities. See?"

"No. I'm still learning algebra."

"Well, this is a meta-calculus of the intersection of dimensional equations, with the key variable being the number of intersecting gravitational waves." His voice grew animated. "Which at least in theory is a window onto multiple alternate parallels." He tapped the chalkboard with a stub of chalk and, since he was so excited, it broke in half and part of it tumbled to the floor and rolled away.

"Parallel worlds?" She asked. "With, uh, doubles in all of them?"

"Doubles in many of them but maybe not all, because the parallel worlds are not going to be exactly identical. For example, a close call in one of these planes of existence might prove fatal to a double in another plane, creating a vacuum there."

"Could that vacuum be enough to suck a double in?"

"He ran a hand through his (rather thin) hair again. "It's possible. Almost anything's possible."

"You jerk!!!" She sprang to her feet, her fists balled. "YOU did this to me! YOU!!! You sent them off to some weird parallel world and left me stranded here!" She took a deep breath. "Send me there. Now!"

"Ah. Your parents." He began to pace in front of his chalk board. "I moved from Paris because I'd detected gravitational anomalies centered right here on this block. The plots from the gravitational wave detectors intersected one building over, at The Book & Cat."

"So what!? Just *send* me to them!"

"Calm down and let me explain. When I came here I tried to rent an apartment above the bookstore, but there's only one and it's used by the bookstore owner. I took this place because it was the next closest to the intersection. Apparently I was right about the importance of proximity." He smiled. "No one but me truly understands—"

"No, Slowten, it's your *double* who understands." She approached the board. "Show me," she demanded.

"Show you what?"

"The part that sent my parents away!"

"This isn't an active form of the equation," he said. "It just describes the theoretical possibility of intersections." He tapped a line midway down the board. "Passive, if you were thinking you wanted to use it to follow them. Sorry."

"Then why did they disappear?" She demanded, glaring at him.

"Uh, well, perhaps something happened elsewhere. Maybe someone in a parallel place wrote a corresponding equation that resonated with this one and drew them

through. Or maybe it's as simple as what I said before, about a lack of doubles forming an imbalance.”

“Their doubles died in some other world, so they got sucked through to fill the vacuum?” She asked, her eyes narrowed.

He shrugged. “It's one hypothesis, anyway. For all we know, there could be a domino effect with multiple versions of them being pulled across worlds, assuming they all were near a nexus of gravitational waves. But a lot more work is needed before—”

“Send me through,” she demanded. “Now.”

“I'm sure you're excited by the elegance of my model, but it's still in its earliest stages and I need to do a lot more work before I can publish it in a leading astrophysics journal, let alone actually test it.”

“Send me to them, or bring them back here!”

“I'm sorry, Sam, but that isn't why I'm doing the math. It's intended to be theoretical.”

“You sent my *parents* away!” Her first were balled and she was suddenly very angry, but she also had to blink away tears.

“I didn't!” He exclaimed. “This is just a description. Although...” He stared at the board. “Somehow these equations *do* seem linked into the physical wave forms, like a recipe becomes a dish in the kitchen, but I don't see... How could... Ah hah!” He began to scribble something with his stub of chalk. “I'll need another chalkboard,” he said. He sounded excited.

“Your double sent me back,” she said. She'd wrestled her emotions into line and studied him with hard, determined eyes. “And if he did it, *you* can. Send me to my parents.”

He paused to examine her. “I'm sorry,” he said. “But...” he tapped the equation in the middle of the board again. “Like I said, strictly passive.”

“You're using misdirection,” she said, her eyes narrowing. “That's not the right equation you're pointing at. It was *today's* equation that made the earthquake and sent me to where their car is. Today's work wouldn't be in the middle of your board.”

He shrugged and turned toward the board. Then, before she could stop him, he grabbed the dusty eraser and rubbed out the bottom-most line. “I'm sorry, Sam, I really am, but we don't have any idea what we're playing with. The risks are just too great. And if anyone goes it will be me, so I can bring back proper evidence of my accomplishment.”

“You jerk!” She struck him hard on the shoulder. “Ow!” He was quite solid and her hand throbbled from the blow.

“Let me study it. Someday—”

“I'm not waiting for you to fill another chalkboard,” she hissed. “That could take years. Put it back!”

“Put what back?”

“The equation! Write it again. Now!”

“I...don't remember it.” He shrugged. “Sorry.” He returned the chalk and eraser to their shelf beneath the board. “Tomorrow’s a school day,” he said. “You better get some sleep. And I'm working a double shift, lunch and dinner, so I need some rest too. Funny about the chair, though,” he added, frowning at it. “I prefer red, but I guess I'll get used to purple.”

“I hate you,” she said as she turned and stomped off toward her bedroom. “I really do.” *Bang!* The downstairs neighbors would complain, of course, but it made her feel at least slightly better to slam her door as hard as she possibly could.

Out in the main room of the apartment, there was a loud crash. Something had fallen and broken—again. She’d shaken Slowten's picture of the Eiffel Tower off its hook. “Serves him right!” She muttered as she threw herself down on her cot, too tired even to run a hairbrush through her hair before falling asleep again, even though that was her usual bedtime ritual—something that her mother used to do for her, and now she did for herself.

Chapter Seven

Contact Contamination



Her tiny bedroom was furnished with only a narrow cot and a small table that Slowten had offered her. She'd added shelves improvised from a cardboard box that she'd cut and taped to fit beneath the table in order to hold the used clothes she acquired.

On top of the table was a windup alarm clock with old fashioned hands and Roman numerals. She'd gotten it for two dollars at Vintage Treasures and Moore, a few blocks over. (The cluttered old store was run by a Mr. Moore, of course; very elderly with tufty white hair and vintage glasses as thick as old soda bottle bottoms.) The clock was missing a leg and sat crooked, but dutifully roused her with its metallic clanging each dawn.

Rrrinnngggggggggggggg. She banged it off and sat up, rubbing her eyes and yawning. *School*, she reminded herself. The clock tended to run slow and she'd forgotten to set it ahead last night. *You're probably late!* she scolded herself as she jumped out of bed.

Science was first period and missing it would mean missing the week's quiz, not to mention a tardy on her record from the school secretary, who pounced on anyone coming in late.

She hurried out of her flannel pajama pants, tossing them on the cot and reaching for a pair of jeans without bothering to change her underwear. No time. Nor had she bothered to turn on the old fashioned light with its cut glass shade, which was across the room by the little oval mirror in the corner. But now she did so as she grabbed her hair brush.

She stopped, brush poised, staring. The light was not a bright one and the mirror was pocked with age spots, but it certainly looked as if *her hair had been cut short* while she slept!

“What the...!?!” She felt her head and her eyebrows arched high in reflected surprise. Gone was her wavy, black, shoulder length hair. In its place, a boy's short cut.

*Was this Slowten's idea of a **really** stupid joke?* He had zero sense of humor and anyway, she doubted he even owned a decent pair of scissors. She peered into the little mirror again and a familiar face peered anxiously back. It looked like her with short hair,

of course, but it also reminded her of someone else. Someone she'd never imagined could even exist until she's seen him with her own eyes last night, along with his flying cat.

"Oh no!" She exclaimed. "It can't be! No!!!" She felt her chest and realized with a sudden shock that she wouldn't be needing her bra, then, hands shaking, she undid her belt and jerked her pants and underwear down.

Her mouth hung open for a long moment of stunned silence.

Then she began to swear. "Christa! Goddess Damn It!!!" And on and on. Some small corner of her brain registered additional shocked surprise at these utterances. She didn't think she even knew how to swear like that. She'd certainly never cursed so much in her entire life. Nor did she know why she was getting the curses slightly wrong, unless, oh no!, they were the ones her *double* used!

She took a quivering, deep breath, trying to get a grip on herself. Then she jerked her pants up, buckled her belt, threw on a shirt, and staggered to her door. "*Slowten!*" She screamed. "I hate you even *more!* *SLOWTEN!!* Get *UP!!!!*" She was pounding madly on his bedroom door but she had to stop. She realized she was having a panic attack. Her ears buzzed, her breath was coming in shallow gasps, and she felt hot and cold and dizzy and faint all at once.

She stumbled to the nearest chair and fell into it. It was the purple armchair. The irony of this struck her after a moment and she leapt back to her feet, cursing again. "*Damn* you! You changed *me*, too, you *idiot!*" she shouted as he appeared, blinking, in wrinkled pajamas.

"What's wrong?" he asked.

"***I DON'T WANT TO BE A PURPLE ARMCHAIR!***" she screamed. And then she began to cry.

She was on the dusty floor, sobbing, one arm propping her against the side of the stupid purple chair. She cried hard for some time, with Slowten kneeling beside her and trying to comfort her with awkward reassurances that only made it worse. But eventually she hiccuped and wiped her face on her sleeve and discovered that she was cried out.

"Now, do you mind telling me what all the excitement is about?" he asked, still leaning over her and looking worried.

"I... I..." She found herself unable even to say it.

"You *what?*" he asked. "Did you not mean to cut your hair so short?"

"She took a deep breath and, looking away from him, said in a very quiet voice, "My double was a boy."

"That's odd," he said with a frown. "My theory posits only minor variations on a theme. But perhaps a delta occurred around the time of your birth..." He stood and glanced at his chalkboard. "When were you born?"

"You call yourself a mathematician?" She snapped, her tone overflowing with scorn, "and you can't even remember my birthday?"

"Sorry."

“June 19th, 20##,” she said, wiping a lingering tear off her cheek.

He went to the board and peered at it. “I *did* have something of a breakthrough that day, but I don't see how it could have had any effect on your double. You're sure he's male?” he added, turning with a frown. “Well, maybe gender is more minor of a variable than I thought. Are you absolutely sure?”

She got slowly to her feet. “I really hate you,” she said. “You've ruined my entire life, and now I have to go to school like *this!!!* What bathroom am I supposed to use? Huh?!?”

“Uh, I like your new haircut?” he offered tentatively, still not getting it.

“Enjoy your stupid purple armchair,” she snapped as she grabbed her backpack, pushed her bare feet into her worn old sneakers (she couldn't bring herself to wear her double's), and slammed out the door.

Whatever else was going on, and no matter how inexplicably horrible her life was, at least she could get to school in time to take her science quiz. The one she'd meant to cram for on the subway, except that with everything else to distract her, she realized she'd left her science book on the floor beside her bed. “Sh*t,” she said loudly, right there on a crowded subway car, when she realized it wasn't in her backpack.

The well dressed woman sitting next to her shook her head and pursed her lips in mute disapproval, but Sam was beyond caring about something as minor as that.

When, however, the lights flickered off in the subway car and then it ground to a halt in the blackness of the tunnel, she couldn't help swearing again. The power had died and now she was going to be late for that science quiz.

“Young man,” the businesswoman next to her said in the darkness. “I'll thank you to watch your language!”

“And I'll thank YOU to watch your pronouns!” She growled.

Chapter 8 Never Again



It was later in the day and she had struggled through her quiz without being able to focus on her work. Now they were outside on the paved playground with students breaking into the usual groups.

The truth, Sam reflected, was *not* always best, after all. ‘It was an accident’ had proved a poor answer to the repeated questions about her close cropped hair. “How do you get your hair cut by *accident*?” her friend Gina demanded now, looking genuinely puzzled.

“You’d be surprised at what can happen by accident,” Sam snapped.

“I guess. Do you like what I did to *my* hair?” Gina continued, running a hand over it. It was pageboy length and she’d recently dyed it silver. She looked like a character from some Manga adventure. Sam had told her several times that it looked good and she truly *did* like it. In fact, she liked everything about Gina, which troubled her, Sam that is, because at least at their school, girls were expected to be attracted to boys, not other girls. So she joked about the boys who had crushes on Gina and never said anything about her own.

“I *do* like your haircut,” Gina said. “It’s cute! But you look a lot more like a boy.”

“I thought you liked boys,” Sam said, sounding almost as irritated as she felt.

“Not as friends. Just to flirt with.”

“That’s stupid,” Sam said. “As long as we’re both being so honest.”

“What’s gotten into you?” Gina demanded. “Normally you’re, if not actually nice, at least sort of normal.”

“I’m sorry I’m not normal anymore. I really am. Sorry, I mean. Not normal. At all! In fact, you have no idea how not normal I am.”

“Sure, Sam, whatever you say,” Gina replied, but she wasn’t really paying attention. The ‘bad boys’ had just sauntered up, with Ichiro, as usual, swaggering along at their head.

“Hey, S,” he teased, “did you get your head stuck in a hedge clipper?”

“That’s really stupid, even by your standards,” Sam said. “You can’t get stuck in a hedge clipper. Want to try again? How about a lawn mower. Or an electric fan. And that’s *not* my nickname.”

“No thanks, S. I don't have time for you today. I'm here to ask Manga Mamma to go out with fabulous me!” He flashed Gina an overconfident grin. “Meet me at I Scream Parlor after school.”

“Forget about it, Itchy. You're not in my league,” Gina teased, batting her long black eyelashes and taking hold of Sam's arm with both of hers. “Besides, how do you know I'm not already spoken for?” She pressed up against Sam playfully and tossed her silver hair.

“What, you and S? Give me a break! It takes a lot more than a haircut to make a *real* man!” He winked and tapped his crotch suggestively.

“I bet Sam has more in her pants than any of you,” Gina teased. “Go ahead, show them what a man you really are, Sweetie.” She winked at Sam.

This, Sam reflected, was the kind of banter Gina loved. The clever give and take of teen teasing. Even before this morning's ‘accident’, Sam did not care for the teasing. Now it *really* annoyed her. She pulled her arm away. “That's not funny,” she said. “You shouldn't make jokes like that.”

“Why not? We always make jokes.” Gina looked surprised.

“I don't. They're mean.” Sam took a step away. “You're all being jerks!”

“It's just for fun,” Gina said. “She reached out and took Sam's hand. “Sorry if I upset you. Go away, boys, you're not needed.” She waved them off imperiously.

“It gets on my nerves sometimes,” Sam said. “Especially today.”

“Go on,” Ichiro called, turning back to get a final taunt in. “Give your new ‘boyfriend’ a kiss!”

“Maybe I will!” Gina taunted back, and then she tugged Sam to her and pressed their lips together. The boys let out loud whoops and heads turned all over the yard to see what was going on.

Sam pushed away quickly, hot with embarrassment. “Gina!” She hissed. “*Please!* Not while people are watching!”

“Don't be silly,” Gina said. “I only did it because they *are* watching. Or did I?” she added, her eyes teasing.

“I have to go,” Sam said, turning and rushing away. She hurried off without looking back, all the way out the schoolyard gate and down the block to the subway station.

I'm sure I flunked that science test, she thought as she took the long staircase down to the platform. But thinking about the test was just a way to distract herself from much bigger problems. *Not to mention that I turned into a boy while I was sleeping!* *Which*, she told herself as she noticed a an old-fashioned coin operated newspaper box, *would make a heck of a headline if it ever got out!* But, as shocking as that was, it did not complete her headline stories for the day. There was the final insult, the incident that made her flush hotly all over again as she thought about it: “The girl I have a crush on kissed me, but she has no idea it isn't just a joke to *me*. Yup, just another day in the life of

the most incredibly messed up gir— uh, person, on the planet!” *OMG, I think I just said that out loud!*

“That boy's talking to himself, Mommy,” a little girl said, pointing her out.

Sam hurried down the platform and stepped into what she hoped was a different car from theirs as soon as the train pulled up.

There was a seat open near the door, and she hurried to take it.

The train swayed and rumbled out of the station. People holding the overhead rings swayed on the curves, the closest of them bumping against her knees. She pulled her knees up and formed a miserable ball on her seat, her eyes on the dirty floor. It felt like everyone was staring at her. Could they read her that easily? Did they guess all her secrets?

When the crowded train reached her stop, she jumped up and squeezed out first, then rushed for the stairs to the exit. However, halfway up the stairs she remembered she'd put her backpack under her seat and forgotten it there. She still had her wallet with six whole dollars in it. She kept that in her pants pocket. But all her school books and notes were on the train, which was at that very moment picking up speed as it rolled away from the platform. She turned and struggled against the tide of people, but was too late to catch a glimpse of the number of her car. *Just great!* she thought. *Now I'm going to flunk everything!*

She stopped when she reached the restrooms. She'd avoided the bathroom all through school, but she could wait no longer.

She hesitated in front of the doors, one marked with a stick man and the other with a cutout doll in a dress. Her empathy for anyone who didn't precisely match the icons was at a new high as she considered what to do. In the Women's bathroom they might take her for a boy because, to be honest, she really did look like one. What if someone challenged her? On the outside, she *was* a boy, but that didn't change who she really was inside. Or did it? She hoped not, but decided on the Men's anyway, on the theory that she was less likely to be challenged.

She'd never been in a men's bathroom before. *Yuck.* It smelled like urine. And it was crowded with very large men: Men waiting in line for a booth and other men facing the wall, side by side, in full view of each other, at open urinals.

My God! She thought. *Have they no shame? No sense of privacy? Do they actually watch each other pee?* They seemed so casual about it, like a pack of dogs marking their territories side by side.

She, however, had *no* intention of actually pulling that unwanted thing out in public and peeing against a wall. No. She would wait for one of the stalls.

There was, however, no sign that either of the toilet stalls was about to turn over. And even if one did, there were five men waiting ahead of her. She realized she simply could not wait that long.

So she darted forward to the last urinal in the row. The one beside it had also become vacant, giving her a fleeting window of relative privacy.

She started to undo her belt, then realized that was wrong and unzipped her fly instead. *What if I was one of those girls like Gina who always wear skirts and leggings? I doubt she even owns a pair of jeans. Uh, now what?* Gritting her teeth, she reached tentatively in through the fly opening of her jeans. *Damn, how do I get it out of my underwear? Boys' underwear has a fly, but mine doesn't!* With considerable fumbling, she got it free. *Sh*t!* she swore to herself as she looked down. *Is that really what I look like now?* She was so startled that she forgot for a moment how badly she had to go and just froze there, staring.

A heavysset older man in a utility worker's dirty yellow jumpsuit elbowed up to the next urinal, unzipped, grunted, and began to spray loudly into the white porcelain.

“Gross!” She hadn’t meant to say anything but the exclamation just popped out.

The man cast an angry glance at her.

She wanted to run, but her bladder was painfully insistent. *I better just do it, she thought. But how?* Suddenly her new body decided to take care of business. “Oh!” she exclaimed. Then “whoops!” as she splashed the edge of the urinal and some of it bounced off to the side, marking a damp streak on her neighbor's jumpsuit before she could aim properly. *I hope he didn't notice that, she thought as she stared straight ahead.*

“What the hell's the matter with you, boy?!” The construction worker growled, glaring at her. “Haven’t you ever used a urinal?!?”

“Uh, you'd be surprised,” she mumbled as she backed away, turned, and rushed past the line of waiting men. Then she was sprinting down the hall and pushing through a turnstile and running, running up the final set of stairs and onto the crowded sidewalk, where she raced past shoppers with their bulky bags, parents pushing strollers, and laughing students on their way home from school, all of whom no doubt were having *much* better days than hers. And the more she tried not to cry, the more the tears kept coming until she was racing madly along, crying openly and loudly, sobbing even, and completely unable to stop. *There are people who want this but their state laws make it illegal to get the surgery!* she recalled, *and here I am **not** wanting...* But that thought just made her all the more upset.

It wasn't until she'd rushed all the way upstairs, thrown herself on her bed and cried herself dry, that she finally was able to state the obvious out loud to herself: “That's *it!* I'm never going back to that school again!”

And then, just to emphasize the point, she scooped up the forgotten science book from the floor beside her bed, took it to her window, and threw it out. Where it fell, she did not know or care. All she knew was that she would not be wanting it ever again.

Chapter 9
A Plan of Sorts



When, a few minutes later, Slowten came to her bedroom door with an ice pack on his head and her science textbook under one arm, she just stared at him. “Uh, why aren't you at work?” She finally said.

He had never, to her recollection, been inside her room before, but now he came in and sat down on the foot of her bed. “I was worried about you,” he said. “I wanted to see how school went. Did you lose this?” He added, handing the book to her.

She got up and carried it to the window. “I threw it out,” she said. “Like this.”

There was a distant crash. *It must've hit a trash can this time*, she thought. She turned to face him again. “Sorry if I, uh, gave you a bump?”

“It'll heal. Poor grade on your science quiz?” He asked.

She shrugged.

“They put way too much in those books, if you want my opinion,” he said. “The pursuit of knowledge is more valuable than its possession,’ as Albert Einstein so aptly put it.”

“Did he?” She glared at him. “I was thinking of a different quote.”

“Which one is that?” he asked.

“A little learning is a dangerous thing, Alexander Pope, 1709,” she snapped.

He stood. “You’re referring to my equations,” he said. “Fair point. Did you say that, in the world you went to, cats have wings?”

“So?”

“So it's really *very* unlikely that an equation written in chalk somewhere could make cats have wings, or you, uh... *You* know. I mean, it's just chalk.”

“But all that *did* happen,” she said. “And you have to figure out how to undo it!”

“It's not the equations, it's the gravitational waves. There's a lot of activity here. Have you noticed that odd things tend to happen on this block?”

“The cat on the sign?”

“You’ve seen it move too? How about the store window reflections?”

She nodded.

“Probably glimpses of other worlds,” he said. “They mingle here. My guess is that the equations are just tapping into existing wave forms as they crest and create openings, like a surfer riding waves. I think I’ll call the phenomenon ‘gravitational-wave surfing,’ or GWS.” He smiled.

“It’s just about theory for you, isn’t it?” Sam said. “And publishing some stupid paper.”

“It was. But now it’s impacted you. I’m sorry I brought you here. It’s not a safe place.”

“You didn’t bring me here, to be fair. My parents were responsible. My Mom said she wanted to see where you live. Boy, was *that* a mistake!”

He frowned. “It’s odd that no one else has ever disappeared, at least as far as I know. Although...”

“Although what? She demanded when he didn’t continue.

“I was just thinking. It’s true that the Book & Cat is never open, but it *used* to be open when I first moved here. I wonder if old Mr. Transiter is still there, or if something happened to him too.”

“Who?”

“Wavy white hair, British accent, mothball smelling suits and blue tinted glasses?”

“He sounds distinctive.”

“I met him when I first came here looking for an apartment. He told me he occupied the rooms above the store and suggested I try here instead. He was open for business Tuesday through Friday from noon ’til six, and there was always hot tea and fresh scones. Not as good as French pastries in my opinion, but they gave the block a pleasant scent at tea-time.”

“Scones,” she repeated, sounding skeptical. “What, are you hungry or something?”

“Or something,” he said, standing. “Let me put this ice pack away and get my tools,” he added as he hurried from the room.

Despite herself, Sam was curious as to what the ‘or something’ might be. She discovered him standing in the kitchen beside an open tool box. “These should do the trick,” he said, holding up a heavy hammer and a long steel pry bar.

“For breaking into a bank,” she said. “I’d suggest something a little more subtle for a bookstore.”

“You’ve deduced my intention,” he said. “Go ahead and choose your own tools.”

She leaned down to study the open toolbox. A light screwdriver with interchangeable tips and a thin putty knife were her choices. “Let’s go,” she said.

“You’re planning to scrape the paint off the door?” He quipped.

“Put those down or you’ll get us arrested,” she snapped, but he didn’t.

She led the way downstairs and along the sidewalk, her determination giving her stride a stern purposefulness, but then she stopped abruptly before they reached the Book

& Cat. “Wow,” she said, gesturing toward the swinging sign above the door, which had neatly carved gold symbols where the letters of the name ought to have been.

“Is that Chinese?” Slowten asked.

“Japanese Kana,” Sam said. It says *Hon to Neko*, I think.”

“You're at school in Japantown,” he recalled.

“And I'm taking Japanese. Or was.”

“What does it mean?” He asked.

“Book and Cat, of course. And I've seen that white cat in a reflection before. The title of the book is in Japanese, too. I think it's called, uh, something like *Floating Worlds*.”

“Strange,” Slowten said. “And a little bit of a caution, but still, I'd like to check the place out. Shall we?”

“Japanese tea and sweet dumplings,” Sam said. “On the sign. See?”

“But the door looks just the same and the windows are still dark,” Slowten observed.

“Screen me,” Sam said as she knelt down and studied the lock. It was a simple bolt attached to a brass doorknob. There was a small gap between the door and the frame. She jammed the straight screwdriver tip in the gap and levered the handle toward the door, forcing the gap to widen. She gave the doorknob a tug. It almost opened, but not quite. “Here, hold the screwdriver,” she said.

Once Slowten had put his weight behind the screwdriver, she felt around with her putty knife, which had a flexible, thin metal blade. She got the blade behind the bolt and wiggled.

The bolt popped free and the door swung outward. She stood. “See? Finesse. It's a girl thing, I guess.” Then she frowned. *I'm not sure I can say things like that anymore*, she thought.

“Point taken, but going first into a dimly lit and possibly dangerous building is an adult thing, and I'm the adult here.” He held the pry bar up.

“Be my guest,” Sam said, holding the door for him.

He stepped across the threshold with every symptom of adult male confidence, but immediately stumbled back and cried, “Look out!” as a cat dashed between his legs.

Chapter 10 The White Cat



“*Neko-chan*,” Sam called, squatting and reaching out. “Good kitty! Don’t be afraid.”

The long, elegant white cat came up and rubbed its cheek against her hand.

“Oh, she's beautiful!” Sam exclaimed. “*Utsukushi neko!*”

The cat purred and rubbed its back against her shins.

What does *that* mean? Slowten asked.

“It means scratch the mean mathematician,” she said as she tickled the cat's chin.

“You *are* a beautiful kitty! But where is the orange tabby?”

The cat's only answer was a deep, happy *prrrrrrr*.

Sam stood up. “So much for taking the lead,” she said to Slowten. “Frightened by a cute little Japanese cat! Come on, *neko-chan*, let's show him how we do it.” And then she stepped through the door into the dim interior of the bookstore, the cat following affectionately at her heels.

Slowten paused to nod and smile reassuringly at some pedestrians who happened to be passing by. They seemed startled by the sight of the iron pry bar he was holding.

“Are you coming?” Sam called from just inside.

When Slowten followed her through the doorway, a cat once again dashed through his legs and darted outside. “What the...?” He exclaimed. “Sam, there's another one!”

The cat paused and looked back at him from the middle of the sidewalk.

Meowwww, it said. It was an orange tabby like the one they usually saw there. “Oh well,” Slowten said. “Guess it wanted to be let out. Sam?”

There was no answer.

He hurried inside. “Sam?”

The bookstore was deserted. The oak floorboards were so dusty that a single set of cat's footprints showed clearly, coming toward the door from the back of the shop. But those were the only prints. It was as if Sam had never been there.

“Oh no!” He exclaimed. He came back to the sidewalk and looked up. Gone was the Japanese sign with the white cat. The regular sign had returned with its orange tabby portrayed atop a book.

He hurried back inside and ran across the dusty main room of the bookstore. At the rear of the room he shouldered through the swinging door. The light was dimmer in there

and shelves and boxes crowded in on all sides. On the back wall a large black iron stove and oven stood dusty and rusty. Obviously no one had made fresh scones there for a long time.

“Sam? Mr. Transiter? Hello?!”

There was no answer.

Slowten stood still, eyes narrowed, thinking. “The door,” he finally said, speaking out loud to himself. “It must be a variable in the equation!” He hurried back to the front of the shop and stopped at the entry. “All right,” he said. “Let's try again.” He turned the knob and swung the door open. Leaning out, he looked up at the sign.

It still said The Book & Cat. Frowning, he swung the door closed, counted to ten, and opened it again.

No change.

He tried over and over. Certainly the painted cat on the sign shifted position and twitched its tail more than once, but it never became a white cat again.

“Excuse me,” Someone said, wanting to squeeze past him.

“Uh, it's closed, Ma'am,” Slowten said, blocking her path with the pry bar.

“But I'm meeting my sister for tea,” she said, easing the bar out of her way. “And I think she's already seated.”

“I'm sorry but no one's...” He paused, puzzled. There were sounds now from behind him. Laughter. The clink of cups on saucers. He turned around.

The bookcases were pushed back and the main part of the floor was filled with round tables covered in cheerfully printed tablecloths holding teapots and sugar bowls and vases of flowers and serving-dishes heaped with aromatic hot buttered scones. And around the tables, happy customers sipped their tea and chatted and smiled and showed each other the books they were intending to buy.

“There she is,” the woman exclaimed, slipping past him and hurrying toward a teenaged girl at one of the tables.

Slowten stumbled out onto the sidewalk and stared at the well lit and cheerful tableau through the plate glass front window. “I don't understand,” he muttered. “I just don't...” He paused to study the sign. It looked the same, more or less, although he could swear that the cat winked at him. “But it's been closed for months!” He said out loud. The cat on the sign seemed to roll its eyes. “Mr. Transiter!” Slowten suddenly exclaimed, then he rushed back inside and, grabbing a startled waitress by the arm, shouted, “Is the owner here?”

She gripped his arm firmly and pushed it away. “Do you *mind*? And could you please not bring *that* in here?” She frowned down at the pry bar, swinging almost forgotten in his hand.

“Mr. Transiter! Is he here?” Slowten exclaimed, slipping the pry bar under an empty table.

“May I help you?” a calm voice asked. The man was elderly with wavy white hair, and he was neatly dressed in a blue blazer and grey flannels. He wore light-blue-tinted glasses. Mr. Transiter.

“I must speak with you!” Slowten said. “This is a major nexus of gravitational—”

The man held up a hand and said, “Not here, please. Come back to my office.”

“Office?” Slowten repeated, puzzled, as he followed the man through the swinging door into the rear room where the old stove had been.

“Yes. We’ve met, haven’t we?” the man asked. “But some time ago. This is where I used to manage the interfaces,” the man continued, waving Slowten to a chair in front of a cluttered oak desk that had not been there before. The stove was still there, but clean and hot, with the warm sweet scent of raisin scones cooking inside its oven and a tea kettle heating on top.

“I haven’t seen you around lately,” Slowten said. “Do you know where Sam is? Uh, my cousin’s daughter? Fourteen?”

“Do you know what *Toguchi Shinto* means?” Mr. Transiter glanced at a framed photograph of a Japanese Shinto gateway with vermilion-painted wooden posts.

“This is an emergency,” Slowten complained. “Could we talk trivia *after* we find her?”

“The girl is elsewhere. One of my more distant doubles seems to have decided to shelter her. She is in theory traceable, but first, I think we should discuss what you’ve so ineptly described as trivia.”

“Shelter her? Why? Where?”

“Because she has begun to move between parallel worlds. That makes her rather unusual and conspicuous, don’t you agree?”

“Unusual, yes. But who could possibly notice or care? I doubt most people even *believe* in parallel worlds.” Slowten leaned forward. “Do you?”

“Consider the traditional Shinto shrine with its characteristic red *torii* gateway.”

Slowten frowned at the framed photograph again. “Look, if it’ll get us back to Sam, we can talk about your photograph. I am aware that these gates symbolize going from the normal world to the sacred when you enter a temple. Okay? Now, what do you know about Sam?”

“Yes, the normal Shinto gateway does symbolize moving from the profane to the sacred. However, in the far rarer *Toguchi Shinto* shrine, the gate symbolizes passage between parallel worlds. In fact, the very use of the traditional vermilion pigment, which is made from a heavy metal, mercury, is part of this symbolism, because—”

“About Sam?” Slowten interrupted.

“Because,” he continued, ignoring Slowten’s interruption, “all heavy metals have their origins in the stars.” He paused to study Slowten. “Do you understand?”

“They’re from somewhere other than our world? Sure, I guess, originally. But what about my niece?”

“Don’t you want to know what *Toguchi* means?”

Slowten sighed. “If it will lead me to Sam.”

“The Toguchi Shinto shrine focuses entirely on doorways. That’s the meaning of the Japanese word *toguchi*, of course. Doorway.”

“Of course.”

“Don’t make fun of things you don’t understand. Now, a long time ago, I spent several years training at a gateway shrine. Not in this world’s Japan, because they are so rare that they don’t even exist in every parallel.”

“Are you planning to make *any* sense?” Slowten complained.

“As a young man, I was contacted by a leader of the sect and invited to train with them. I’m Japanese on my mother’s side, but more important, I showed some small talent for finding and manipulating deltas, as you call them.”

“Equations?” Slowten leaned forward. “This particular address is a major nexus of gravitational waves, and—”

“Of course it is! Now listen, please, and don’t interrupt. The sect had long ago mastered the equations that interest you. *And* they recognized that it would be easy for people to abuse that skill.”

“Abuse? Wait, was she kidnapped?”

“Why were *you* keeping her?” the man asked, eyeing Slowten. “And what exactly happened to her parents?”

“I didn’t kidnap her! They disappeared in an accident. Wait, are you saying they might have slipped through to another world? But that’s not the point, the point is she *just entered* this establishment, and now she’s *not here!*”

“Yes, but this isn’t the first suspicious event in her young life, and I don’t know what role you’re playing in all of this. Until I find out, I’m disinclined to give her location to you.”

Slowten got to his feet quickly and leaned over the old man’s desk, wishing he hadn’t dropped the pry bar. “Now listen to me!” he hissed. “I intend to find the girl, uh, teenager! *And* bring her back home, and until—”

“Sit down!” The old man waved at Slowten, who sat down as if he’d been pushed back by a strong puff of wind. In fact, that’s exactly how it felt, and it made him gasp in surprise.

“As I was *trying* to explain,” the old man continued, “There has been, of late, considerable corruption. I’ve been forced to hide this establishment by putting it a year behind. And given that, I have to be suspicious of you. Perhaps you are far more aware of this conspiracy than you let on.”

“*What* conspiracy?” Slowten demanded.

“Are you aware that many of your doubles have elbowed into the traditions of us Guardians and the shrines that trained us?”

“Uh, no. How does this relate to Sam?”

“Well...” Mr. Transiter drummed his fingers on his desktop. “It’s like this. I’m not sure it’s in the young woman’s interest for me to reveal anything more to you. You see, in a number of adjacent worlds, you have already mastered resonant equations.”

“My doubles? Just how many are we talking about?”

Mr. Transiter shrugged.

“You clearly know more than you’re saying,” Slowten said. “But at least tell me how to find Sam. She’s my responsibility and I’m very concerned about her.”

“Interesting,” the old man said, putting his fingertips together and studying Slowten from behind his desk.

“Interesting?? I don’t think you’ve quite grasped the severity of the situation,” Slowten exclaimed. “A girl is missing! Or at least someone who’s supposed to be a girl,” he added with a frown.

“Which brings us to the topic of cross-contamination,” Mr. Transiter said. “I’m stationed here to keep just that sort of thing from happening. Your sophomoric scribbblings have confounded my efforts to keep your world safe.” He sighed. “However, if there is anything positive to be found in this mess you’ve created, it is that you appear to be genuinely and sincerely concerned for the girl’s welfare. That is certainly a pleasant surprise.”

“Of *course* I’m concerned! Now, I must insist you tell me where she is.”

“If I do that,” Mr. Transiter said, “how can I be certain that you won’t share the knowledge with any of the other yous?”

“Other, uh, Slowtens?” Slowten looked startled. “Why would that matter? I would think they might actually be of assistance if I could find a way to reach any of them. The more people searching, the better, right?”

“Well, I *am* amazed. You seem genuinely naive. What would you think if I told you that in other worlds your doubles are far more interested in fame and fortune than in the welfare of their cousin’s daughter?”

“Wait, what are you saying? That my doubles *aren’t* going to be helpful?”

“Ah, well, actually, most of them are going to be quite *unhelpful*. In most worlds, you are the villain in the story, and quite a formidable and frightening one too. Although to be fair, some of my fellow Guardians are equally corrupted.”

“I’m what?!?”

“So you’ll have to forgive me if I don’t share my information with you.” He shrugged.

“But...!”

“Now, as it turns out, I have other more important matters to attend to at the moment. For instance, this batch of scones is done, and we mustn’t let them burn. And then I shall rush off to deal with an intrusion in a closely parallel world. It’s causing the local agents some trouble, and since I’m the Director of our set of parallel worlds, they’ve requested my help. Always something!” He stood. “Good day.”

“What about Sam?”

“If you are pure of heart, you will eventually find her. Goodbye.” And then, with a faint *pop*, the man disappeared. Completely. His desk chair sprang up straight and the papers on top of the desk blew around as if a gust of wind had just touched them, and then the room was quiet.

Slowten went behind the desk and felt around. “Gone,” he muttered. “Just like Sam. But where?” Laughter from the front of the store caught his attention and he crossed the office and opened the door.

It swung open creakily onto a dusty, empty, dimly lit bookstore, with no signs of tea-goers and only a few lines of smudged footprints on the dusty floor to prove anyone had been in or out in recent months.

Looking back, he found the office to be a dusty, abandoned room again, with no sign that either he or Mr. Transiter had been there. Frowning, he went back to the front door and stepped outside.

On the sidewalk, the sign swung above him. The wind had risen and the sky was spitting rain. He stood blinking and staring up at the sign for a long time with a worried frown.

The cat that always sat on the book was no longer there. Gone. Just the painted book remained. On its spine, lettered in clear block print, was a title he did not think had been there before: *Manual for Patrolling the Borders Between Worlds*. The name of the author was also visible: *E. O. Transiter, Boundary Agency Director*.

And then he felt (because the wind was cold and he'd put his hands in his pockets) a stub of white chalk. It made him think about equations. Equations that he might be able to create for the purpose of tracking and retrieving Sam. *That annoying old man*, he thought, *said it was possible to track her, and if it's possible, I'll figure out how to do it without him!*

Turning, he headed down the sidewalk with a determined stride, the chalk firmly in his grip.

Chapter 11 Meanwhile



Sam was both surprised and pleased to find herself in a busy, cheerful tea house with blonde wood tables holding bento boxes of delicious looking food beside elegant clay teapots and cups. There was a pleasant scent of hot Japanese tea filling her nostrils as she stared at the cheerful customers chatting at their tables. Clean, neat bookshelves lined the walls. At the back of the room, a very large, round window overlooked a little courtyard perfectly landscaped into a curving koi pond with, around it, Japanese maples and small boulders. The maples still held their autumn finery of yellow and russet leaves. A light snow was falling on the scene, giving the boulders fluffy white caps.

She scanned the room quickly, worried there might be another of her doubles and not wishing to pick up any more unintended traits. *What if I run into a double who has a broken leg and gives it to me?* But there was no one who looked like her.

The white cat rubbed against her legs.

She reached down to pat it. "Did you bring me here?" she asked. "I suppose I should thank you. It seems like a nice place. *Arigato.*"

"The young woman knows *Nihongo!*" a waitress exclaimed, giving Sam a warm smile. "*Irasshaimase!*" She added, using a welcome Sam remembered learning in her Japanese class. The waitress, not much older than Sam, was taller and (Sam noted with some envy) had very long, dark hair. "Would you and your friend like a table?"

"Uh, sure, I guess," Sam said. She was not in the habit of ordering at establishments as nice as this one since her financial resources were severely limited, but she guessed that Slowten would be able to cover their tab. Turning, she frowned and added, "Maybe I should wait for my friend to catch up."

"He's right at your feet!" The waitress exclaimed, smiling toward the white cat. "And don't worry about the bill. Mr. Kyokai is expecting you. He said your meal is to be on the house."

"You mean free?" Sam asked, startled.

"Of course! Why don't you take the table by the garden window? The view's to die for!" *Smile.*

"Well, okay, but I'm waiting for someone."

"Not anymore." The waitress flashed another smile. "He won't find you here."

“Who, Slowten? Do you know him? And where *is* here, anyway?”

“You're in Japantown, of course! At the *Hon to Neko. The Cat and Book*. Don't you recognize it?”

“Uh, not really.”

“Mr. Kyokai sent for you. He's the owner. It's okay, really. You'll be safe here, Sam, I promise.”

“What do you mean? Wasn't I safe before?”

The waitress frowned and leaned close enough to reply in a whisper. “Not once you crossed between worlds, I'm afraid. They're bound to have noticed. So few people can do it at all, and even fewer can do it without some sort of injury. *He* doesn't like anyone who can jump worlds freely. Takes it as a threat, of course.” She stepped back and took up a more normal waitress pose. “Your table is this way. I'll get you settled and bring you tea and buns, along with a steamed prawn for your frisky friend. That's his favorite.”

Sam was not sure what to make of the waitress's warning, but there were good smells wafting from the kitchen and she couldn't see any reason *not* to have tea while she continued to investigate. Frowning, she turned and followed the waitress to a table at the window that overlooked the koi pond and garden. A tall stool was provided for the white cat, who jumped up on it and began licking her front paws.

“Do you live here?” Sam asked, but of course it did not reply.

Very soon the seafood arrived on a tray carried by the same waitress, along with a plate of sweet snacks and a little teapot. “There you go!” She said with her patented smile. “Just what you ordered.”

“I didn't order, actually, but it does look good. Uh, *Itadaikmasu*, Sam added, trying out her Japanese again.

The waitress raised an eyebrow. “Your accent isn't as terrible as I would have expected,” she said. “Japantown is much smaller in your world, right?”

“Sam frowned. “Apparently. It's a few stops from here on the subway in my world,” she added. “It's much larger in your world?”

“Oh yes. During the Second Korean War, lots of Japanese refugee families moved here.”

“The second...? Never mind, I don't think I want to know. So, there really are lots of parallel worlds?”

The waitress smiled. “Of course.”

“Have you been to *my* world?”

The waitress spun around so that her long dark hair fanned out. As she turned, Sam noticed a thin strand in the rear that was completely white.

“Yes, but travel gives me white hair. A new one each time I cross a boundary. It does worse to most people! But not to you. You're unique, I hear. Now go ahead and have your tea, and I'll find Ojisan. He can explain everything.” And then she was hurrying

away through the busy tea house, her long hair with the thin white streak waving behind her.

Ojisan means Uncle, I think, Sam thought. She's not only a waitress, she's also related to the owner. But he's not the same owner as in our world, her thoughts went on. Slowten said his name was Mr. Transiter, but she mentioned a Mr. Kyokai. Then she turned her attention to the tea, which was really quite good.

She didn't notice him until he brought another chair up to the table. He moved rapidly for such an old man.

He sat down. "I am a Guardian of the Borders," he said. He had white hair combed back, a dark blue suit, bushy eyebrows and pale blue tinted glasses.

"Are you a, uh, version of Mr. Transiter?" She asked.

He smiled. "In this world, yes."

"Then the man who runs The Book & Cat on my block is a Guardian too?"

"In many worlds, this establishment is at a junction where worlds meet and passages are easily opened. It's important to have someone posted there to keep people from opening portals, whether by accident or otherwise. So yes, he is. Or was. He's been a bit of a disappointment in recent years, I'm afraid. Many of us Guardians have been evolving, but he hasn't."

"That was a complicated answer."

He smiled and waited for her to continue.

"It was you who brought me here," she said. "So, it's okay if a Guardian does it?"

"Only when necessary."

"Can you show me how? I need to find my parents. And of course I'd like to..."

She turned to glance at the entry door. "I'd like to go back home, such as it is. After a little more tea, I guess," she added, hoping not to seem impolite.

He frowned. "It's not quite as simple as that," he said.

"What, finding my parents?"

"Yes, that could be a problematic too, although certainly not impossible."

"I saw their car. It's in a world where cats have wings," she said. "And where, um, I'm a boy."

"Is that so?" He said. "Did you happen to bump into a double there?"

"I met me, if that's how you say it. My double. He invited me in."

"But you didn't have any direct contact, I trust?" He leaned forward and eyed her narrowly.

"Well..."

"Because traits can be traded. It's called contact contamination, and it's a good reason for you *not* to go traveling across world boundaries. Always the worlds seek balance, but not necessarily in the original manner. Did you notice anything different about yourself after this contact?" He leaned over the table, eyeing her.

Sam bit her lower lip.

“I understand if it's, ah, personal,” he said.

“It is,” she admitted—but to herself, she was thinking, *how the he did know so quickly?* Then she asked the million dollar question: “How do I undo it?”

He shrugged. “Difficult to say. More contact could make things much worse, not better.” He smiled (*which seems odd, but, she told herself, she only just met him and didn't know his mannerisms*).

“I think you have, shall we say, even bigger problems to focus on,” He said.

“I doubt it.” She eyed him. “Wait, *what* problems?”

He had poured himself a cup of tea. He set it down beside hers. “Imagine these are parallel worlds,” he said. “Similar in many ways, but separated and whole unto themselves.”

Sam shrugged. “Okay.”

He flicked his finger against the lip of his own cup and it bumped Sam's, sloshing tea into it and onto the table. “Oops! A wave just disturbed the integrity of these two worlds.”

“You dumped some of your tea into mine,” Sam complained.

“And made a mess,” he said.

“No kidding.” She slid her cup away from his.

Waves happen all the time, and occasionally make a mess of things. That's natural. However, when someone decides to take advantage of this phenomenon for their own enrichment, the problem becomes much more acute, you see.”

“Uh, no, sorry. I don't see. How does someone take advantage of gravitational waves?”

“Many possibilities,” he said. “For one thing, the ability to move objects across worlds means you can do what amounts to powerful magic.”

“Magic? I thought this was science.”

“Science people don't understand appears to be magic, doesn't it? I can offer a modest little demonstration of how the science might be abused, if that might help?”

Sam shrugged. “If you want.”

“Two worlds over and a few blocks away, there is a jewelry store with a tiger that guards the merchandise. During the day it is kept in a cage, but after hours it roams the floor freely.”

“A tiger? Why not an alarm?”

He shrugged. “It's how they do it in that world. Watch.” His finger traced rapid shapes in the air.

The white cat had been licking its front paws after consuming its prawn. It stopped grooming and began to shimmer oddly. Then it winked away.

In its place, balanced awkwardly on the stool, appeared a very large tiger. The tiger seemed quite surprised. Its head swiveled around, taking in the scene, as customers at other tables began to jump up and run for the door. It opened its very large mouth and

growled. From where Sam sat, almost directly across the table, its long teeth were easily visible.

It began to rise as if preparing to lunge, but the movement proved too much for the stool. One leg splintered away and then the rest of the stool collapsed.

The tiger hit the floor with a heavy thump, then rolled rapidly to its feet, eying Sam and growling. Its tail twitched, and then it sprang at her, leaping so high that it cleared the table.

She screamed and fell over backwards in her chair.

The white cat landed on her chest with a friendly *meow*. When she groaned, it leaned forward and touched its nose to hers.

She cursed and struggled to her feet. “Are you crazy?” She demanded. “You could've gotten me killed!”

“Look at the cat,” Mr. Kyokai said.

The cat was rubbing against her leg now. She gasped. It was wearing, looped around its neck like a collar, an amazingly thick, bright gold necklace hung with dozens of large diamonds.

“I've just robbed the best guarded jewelry store in that world,” he said. “You're looking at two million dollars worth of diamonds. The police will find no clues, only a few hysterical claims about the guard-tiger turning into a house cat for a few seconds.”

“You're a robber!” She exclaimed.

He waved his hand. “No, I just wanted to show—“

“Where did the diamonds go?” She demanded, staring at the cat, which no longer wore the necklace.

“Returned. There's a tug from the vacuum left by their departure that makes it easy to send them back for a short while afterward. But a dishonest person would not have restored it to its proper place. Do you see now why it's important to guard the boundaries?”

“You're crazy,” Sam complained, leaning over to pick up her stool. “That was really dangerous.”

“The tiger moved a little faster than I expected, but I do think it made for a nice demonstration.” He smiled.

She patted the cat. “Does he mind doing your otherworldly errands?”

“He quite enjoys it and it does him no harm. Cats can cross borders with ease.”

“Cats. Huh.”

“So I knew the tiger would be fine too.” He smiled.

“It's nice of you to show such concern for the cat and the tiger,” Sam said. She was tempted to point out that his concern didn't seem to extend to the people in the room (who, aside from Sam, had fled), but she still didn't want to appear rude.

“More tea?” The waitress was back with her tray, exchanging the old teapot with a hot new one.

“Actually, I'm not in the mood for tea now,” Sam said. Her cup, after having Mr. Kyokai's tea sloshed into it, had been spilled by the tiger.

“What about a bun?”

“I should get back. Slowten's probably worrying.” She stood. “Thanks for your hospitality. It's been...interesting.”

The waitress stepped between her and the path to the door, but Mr. Kyokai said, “Why don't you escort the young, ah, person, home?” he said.

Sam hurried past the waitress and wound through the tea tables toward the exit. The tables were empty, the tiger had seen to that, and the door was unlocked and swung open with ease. Sam stepped outside—and stopped. While the basic structures looked essentially the same as on Slowten's block, the details were very different: Stores had Japanese signs, cars were unfamiliar in design, and someone had hung strings of paper lanterns from the utility poles and eaves. She turned to examine the sign above the door. It was in still in Japanese and it still had a white cat on it. *How do I get home?* She wondered.

She went to the door and opened it again, just enough to peak inside. It was still a Japanese tea house.

She closed the door with a frown and began to walk toward ‘her’ building, although she doubted it would be the same.

The waitress appeared in front of her. “I wouldn't go home,” she said. “You might meet another double.”

Sam frowned. “I don't think you told me your name.”

She smiled. “I'm sorry, how impolite of me! I'm Amaya. Pleased to meet you!”

“And you do errands for your uncle?”

“I'm apprenticing. Being a Guardian is an excellent career! In fact, it can be quite lucrative. Hold on. Uncle says you can stay in a luxury apartment he owns. It's that way.” She pointed the opposite way from where Sam was heading. “For your safety,” she added.

“I'd like to go home.” Sam frowned. Home, her *proper* home, seemed so far removed, between the earlier accident in which her parents disappeared and now this latest world-shuffling confusion.

“You can't go back to how things were,” Amaya said. “You're not the same person. I can't imagine you want to return to that school again. Won't you feel *terribly* ashamed?”

Amaya had linked arm with Sam's and begun walking her back along the sidewalk, but Sam stopped and pulled her arm away. “What do *you* know about that?” she demanded.

“You can confide in me. Your old classmates wouldn't understand, but *I* do.” She gave Sam a winning smile. “In fact, I expect we're going to be best friends.” She linked arms again. “And who knows? Maybe something more.” This last was delivered in an inviting whisper as she leaned toward Sam and her long, soft hair brushed Sam's cheek.

“Are you flirting with me!?” Sam demanded, tugging free and stepping back.

Amaya smiled. “Only a little,” she said. “I *do* think you're quite handsome, and now that...” She glanced meaningfully below Sam's waist.

“Oh my God!” Sam exclaimed, pulling her arm free and storming off in the direction of ‘her’ building again. “Just leave me alone!”

People turned and stared. She was making a scene. Scowling, she quickened her pace, aiming for the entry.

The door looked the same except that the street number was in Japanese as well as the normal Arabic numbers she was used to. It was, she recalled, how the buildings were numbered in her Japantown too. She frowned as she pulled the door open, hoping somehow she would find Slowten and her little bedroom up the winding stairs.

What she really did not expect, as soon as the door clicked closed, was to find herself back in the tea house again (which was once more filled with customers). She spun around and grasped the doorknob. The door was locked.

“Hi there!” Amaya said, approaching Sam with a big smile. “Welcome back! Would you like your regular table?”

“Why are you messing with me?”

“I'm sorry, but Uncle insists. It's for your own safety, of course.”

“Of course,” she repeated.

“But He's decided his luxury apartment isn't safe enough, so he's preparing an even more secure room upstairs. May I show you now, or would you prefer to have another cup of tea before you go to your room?”

“Am I a prisoner?”

“Of course not! Whatever gave you that idea?”

“The locked door?”

“Oh! That's Uncle, not me. I know how to lock doors too, but I wouldn't do that to you. Not unless Uncle asked, of course.”

“Of course,” Sam repeated, this time with even more annoyance. “And *why* does your uncle want me locked in?”

“It's to protect you from Him, so don't be silly. Come on, let's go see your new room.”

“I am *not* silly, and I want to go back.”

“Listen, Sam, I've seen Him do terrible things. He has chased his enemies through multiple worlds. Your life really is in danger, and you should be grateful that Uncle has taken... Oh my Goddess!”

A loud bubbling sound was coming from the koi pond. A jet of water sprayed up violently, hosing the elegant round window and breaking one of the panes. Customers jumped up and rushed toward the front door. Again. “Unlock it!” Sam cried, and Amaya hurried to trace some figures in the air. Then she pulled Sam aside just as the first panicked customers rushed past.

The door burst open and customers tumbled out.

“Not you,” Amaya said, and her grip on Sam's arm was surprisingly strong.

“Whatever it is, Uncle will fix it. Nothing to worry about.”

The door clicked shut as the last customer left.

At the other end of the store, the koi pond had erupted so violently that all of the glass had broken and water was splashing into the restaurant. Gold, red and black fish were slapping around on the soaking wet floor.

In the middle of the empty pond, standing on the damp cement, stood... Slowten! “Hey, over here!” Sam called, waving to him.

“That’s Him!” Amaya hissed. “Don’t talk to Him!”

“Don’t be so dramatic,” Sam said. “He’s a friend. Well, *my* friend, at least.”

Slowten stepped through the broken window and stood amongst the flapping fish, looking around. “Is He here?” he demanded.

“Of course I am,” Mr. Kyokai said. He had appeared with a *pop* in front of Sam and Amaya.

“You’re the Slowten with the beard who helped me get home last time,” Sam said, coming around from behind them and heading toward him. “Thanks for coming! Can you help me get—*ahhh!*” The tiger had reappeared, leaping at the bearded Slowten.

Slowten gestured in the air to form a hurried equation, and just as the tiger struck him it turned into a yellow and orange striped koi fish, rather small, that slapped against his shoulder and fell flapping onto the wet floor. “I'm here for the girl,” he said, ignoring Sam and eying Mr. Kyokai. “You can't keep her.”

“That’s right,” Sam agreed. “In fact, *nobody* can 'keep' me, thank you very much!”

Mr. Kyokai did not say anything, but he held an arm out and gestured toward Sam, who felt a powerful tug pulling her back and preventing her from walking any closer toward the bearded Slowten. With his other arm, he wrote something in the air.

A large, shiny black piano appeared with a loud *pop*. It was directly above Slowten.

“Look out!” Sam cried, but Slowten was focused on the koi around him. At Amaya's gestured command, they had begun to slap the floor madly with their tails in what seemed to be a successful effort to distract him.

“Above you!” Sam screamed, and Slowten dove just as the piano crashed down with a splintering of its three long black legs and a discordant jangling of keys and strings.

And then all was quiet and there was no sign of that Slowten at all.

“You monster!” Sam screamed, spinning to glare at Mr. Kyokai. “You’re a murderer! You—”

“Sam.”

It was Slowten's voice. *Her* Slowten. He was standing in the doorway with a stub of white chalk in his hand. “I've been looking for you. What's going—”

“Hurry!” Sam told him as she pushed rudely between Mr. Kyokai and Amaya, rushed outside, and turned to slam the door.

What a relief for Sam to see that they had emerged on their own version of the street, with the dark, dusty and never open Book & Cat store they were used to. Except that there was a freshly scribbled equation in Slowten's handwriting on the bottom panel of the door.

Sam bent over and rubbed her hand across the equation.

“Wait!” Slowten exclaimed. “That's a breakthrough in my work!”

“Let me guess. It breaks through to another world.”

“Yes, I think I'm finally beginning to understand—”

“Never mind all that,” Sam said. “Come on.” She hurried away, eager to put distance between them and the door to The Book & Cat and not convinced it was safe until they were finally standing, out of breath, in their own dingy little apartment. She went over and sank thankfully into the purple armchair.

Slowten came in more slowly and stood looking at her from in front of his blackboard.

“You figured out how to find me with an equation?” She asked.

He nodded.

“Thanks.”

“Is it true?” He asked, frowning. “About me?”

“I don't know,” she said. “But they seem to be afraid of you. Do you think it's possible?”

“That some of my doubles are evil? I certainly hope not.”

She shrugged. “I don't think it really matters. We live in this world.”

He smiled. “That's a positive way to think about it,” he said. “Thanks. Uh, are you still...?”

She sat up straighter, frowning.

“Oh. I see. I'm sorry. Anything I can do?”

“Buy me underwear with an opening in front?”

He stared at her.

“Or find an equation that puts things back to how they were.”

“That's more up my alley,” he said, turning toward the board. “Shopping's not really my thing.”

Chapter 12

The Unwanted Visitor



“Darn! I have to go to the bathroom.”

Slowten had been revising some of the equations on the board and attempting to explain them to her. He paused and turned. Is it, uh, traumatic to, uh, ...?”

“She bit her lower lip and looked away.

“I expect you’ll, uh, get more used to it. Over time, you know.”

“Shut up.”

“I’m sorry.”

“Hell!” She jumped up. “I really have to go.”

He frowned and turned back to his equations.

When she returned, she came over to stand beside him. “Your double, the one who got crushed by a grand piano, wrote something that looked like this.” She pointed. “And I noticed that Amaya had something similar tattooed on her forearm. Her sleeve slid up when she was tracing equations in the air.”

He underlined the section she had pointed to. “It’s the core of my breakthrough equation, the delta where multiple gravitational waves meet and balance each other to form a quasi-stable distortion in reality. You might call it a temporal-spacial trilateral portal.”

“A door?”

“Or that, I guess. And if someone were walking around with an activated version of this on them...” He paused, frowning.

“Well?”

“They might create a nexus of waves wherever they went. It would be most powerful when close to a natural nexus, but they might be able to summon a small nexus wherever they were. Gravitational waves wash over us all the time. We just don’t normally take notice of them.”

“So they’d be able to do magic?” She asked.

“Magic is anything we don’t understand, so yes, it would probably appear so.”

“Huh. I might need a tattoo.”

“I doubt your parents would approve of a tattoo at your age.”

“And you think they’d approve of *any* of this?”

He frowned. "I'm afraid I'm not much of a substitute parent."

"At least I'm learning French cooking." She smiled. It seemed like the mood needed lightening.

"Oh no! I'm late for work! Sorry, but I have to go. Will you be all right? Don't go anywhere, please."

"It's not my intention to pop into dangerous alternate realities, I assure you," she said. "It just seems to happen."

"Maybe I should stay."

"No, go. It's pay day. And don't forget to pay the rent on your way back or they'll turn the heat off again."

"Good point." He slipped his coat on and hurried away. She could hear his footsteps on the staircase, fainter with each floor, until it was quiet and she was all alone. She flopped back down in the purple armchair and, holding her head in her hands, said to herself, "What am I going to do?"

"He's naive. He hasn't gotten up to speed yet. However, most of his doubles from other worlds are already in on the conspiracy. You won't be safe with him in the long run."

"Where are you?" Sam demanded. "I know that's your voice, Amaya, I just can't see you."

"That's a reasonable question, I suppose, but not the most intelligent one."

"Oh really?" Sam said, sounding annoyed. "What would the most 'intelligent' question be? How to avoid being bothered by you?"

"How about 'what's the conspiracy?'" *Pop!* Amaya appeared standing in front of the purple armchair. "My white streak is getting bigger because of you," she said. "But someone's got to warn you."

"Ever try knocking?"

Amaya smiled. "Always joking," she said. "That's one of the many things I like about you."

"Always intruding. That's one of the many things I *don't* like about you."

"Seriously, Sam—"

"I *am* serious."

"Uncle is very worried. If your Slowten works out the details of how to world-hop, he'll fall in with the others and you won't be safe with him. I've come to take you back. Only a fully trained Guardian can take proper care of you. You saw how well he fought."

"And if I refuse to go, what? Drop a piano on me?"

"Of course not. In fact, we'd like to help you find your parents. What if I told you that Uncle can arrange for them to join you in our world?"

Sam got up slowly. "Okay," she said. "But I'm not popping in and out of existence. I'll walk, thank you very much." She headed toward the door.

“Allow me,” Amaya said, stepping in front of her. “Just in case anyone's waiting outside.”

Sam paused to allow Amaya to exit first. Then, as soon as Amaya was through the door, she slammed it shut and locked it. Then she rushed over to the chalkboard and began to erase Slowten's work. “If I get rid of the resonant equations,” She muttered, “then maybe she won't come back.”

However, her hand hovered over the part he'd told her was the core delta equation, the part that looked like Amaya's tattoo. Grabbing a pen, she scribbled it on her forearm. “Just in case I need it later,” she muttered. Then she wiped it off the chalkboard.

Amaya was pounding on the door. “Sam! Don't be stupid! Let me in!”

Sam approached the door. “Aren't you going to pop inside again?” she asked.

“Good idea.” There was a pause, then Amaya said, “The wave forms are breaking up. The delta that's usually centered in your living room seems to have collapsed. But don't you worry, there's always another way.”

“I'm not worried.”

“Now, now, I'm sure all this is upsetting to you and I don't blame you for not wanting to leave home, but I really *do* care about you, Sam.”

“I bet you do, but why? Anyway, I assure you I'm *not* opening the door.”

“That's all right. I'll just go back to the main nexus to make the jump. Or you can come with me now, before anything bad happens to you.”

“That's presuming *you* aren't one of the bad things happening to me,” Sam muttered as she hurried to her bedroom. The window looked out at an L of the building where a heavy copper gutter ran all the way to the sidewalk, four stories down. “Here goes nothing,” she said as she climbed out and wrapped herself around it.

The copper gutter was amazingly cold. She was wearing the borrowed black sneakers since they were in better shape than her own, so her feet were doing okay—but her hands went from painful to numb by the time she reached the third floor.

The building was an old brick structure with thick walls and deep set windows. Thinking she'd never make it to street level without a fall, she swung onto the nearest window ledge and hunched there, shivering.

She did not know that the irritable elderly couple who lived in the apartment below Slowten's had a young boy. *Maybe he's a visiting grandson*, she thought as he stared at her out the frosty window.

She waved and said, “Can you let me in?”

He tried to lift the window sash, but couldn't.

She pointed at the latch. “It's locked,” she said.

He disappeared, then reappeared a moment later, pushing a wooden chair. Climbing up, he turned the latch.

Smiling, Sam dug her shivering fingers under the sash and pushed upward. It slid up a foot or so and stopped, jammed. It was an old window.

She heard a sound above her. *Amaya must be at my window!* She thought. Contorting herself painfully, she managed somehow to get one arm (the one with the newly scribbled equation) and then her head and shoulders underneath the window sash, then she wriggled the rest of the way in.

She tumbled to the floor, knocking the chair over. The boy, about six or seven and wearing blue striped pajamas, stood staring down at her.

“Sorry!” She said.

“Can you teach me how to do that?” He asked.

She got up, righted the chair, and sat on it. “Climb down the gutter? No. Turns out it's not safe. Too slippery and cold.”

“Oh.”

“I need to go. Is anyone else home?”

He nodded. “Everyone.”

“Your grandparents?”

“Who?”

“The old couple who live here and complain whenever I make noise upstairs?”

He shook his head. “My mom and the twins. She's giving them their bath. Want to see?”

“Uh, no thanks. Where's the door?”

“Do you have to go? I'm bored.” When she nodded he looked disappointed, but led the way to the door and let her out.

“Thanks!” She said. See you. Oops!” A small, grey and white cat had slipped out the door, but the boy said, “It's okay, he goes out all the time.”

She did not recall seeing a cat around their no-pets-allowed building, but she had a more pressing problem to focus on: Where was Amaya and how to avoid bumping into her?

She took the stairs three at a time and arrived breathless in the small entry hall, where she paused by the mailbox cubbies and hesitated. Was Amaya still in her apartment and about to come down the stairs, or had she gone outside to intercept her there? The answer would determine whether she should open the street door and step outside, or stay hidden within.

When the gray and white cat came flapping and gliding down the stairs with a friendly *meow* and landed neatly on her left shoulder, she realized that there might be yet another possibility. Amaya was neither upstairs *nor* down. Somehow—Sam wondered if it had something to do with the equation she'd written on her arm—she'd entered another world while climbing down that gutter. A world where cats flew.

She was pretty sure she knew which world it was. She realized she would be able to go back to The Book & Bat and see if her parents' car was still parked there—and see whether her double had long hair now. Perhaps her desire to return to that world,

combined with the strange equation inked on her arm, had been enough to pull her there. Her respect for math was increasing.

She swung the door open and hurried down the sidewalk with the little winged cat swooping along in her wake.

Chapter 13

Revelations



As Sam approached The Book & Bat, the little cat circled away, leaving her to finish the walk on her own. “Smart kitty,” she said, watching it leave. “Fly along home. You’ll be safer away from me!” Then she turned and hurried along the frozen sidewalk, stopping only when she reached the swinging sign. There she paused and rolled up her sleeve to study the inked equation. “I wonder if I can control its effect?” she thought. “Or if it’s going to keep sending me places at random.”

“Sam! Hey dude! How’s it hangin’?”

It was a pair of older boys coming toward her on the sidewalk. She was quite sure she’d never met them before. Rolling her sleeve down, she turned to face them. “Uh, do I know you?” she demanded.

“He’s such a funny guy, ain’t he, Rough?” The taller of them said, looking at his squat but strongly built companion. “Been avoiding school lately, huh?” He added, addressing Sam again. “Called in sick, they say, but *we* know better, don’t we?”

“Uh, *do* we?” Sam asked, skeptical that any boys who looked as much like thugs as these two could possibly know better about anything.

“Didn’t pay your protection fee last week, did ya?” He said. “Glad we bumped into you. It’s *almost* as if we looked up your address. Go on, empty those pockets.” He held out a cupped hand.

“Why would I pay *you*?”

“To protect you, of course!” He smiled. “From him.” He nodded toward his companion. “And you can pay *him* to protect you from *me*.”

“Very funny, but I don’t think so,” Sam said, making a mental note to ask her double about them. “Wait, let me guess. If he’s named Rough, you’re Tough?”

“If you’re gonna be *that* way,” the taller boy said, “I guess I can’t keep Rough off you. Too bad.”

Rough began to roll up his sleeves. “I’ll deal with him, Tough,” he said.

“Oh my God! You *are* named Rough and Tough. How stupid is that? Uh, wait, are you actually planning on hitting me?” Sam asked, turning toward Tough, who had rolled his sleeves up and was forming tight fists and feeling his swollen biceps.

Tough grinned. “Oh yeah. Four or five times, I’d say—*Ahhhhh!*” He doubled over, gasping, his hands between his legs. Sam had kicked him hard in the crotch.

“How about you?” She demanded of the other boy.

“You fight like a girl!” he complained. “Let’s go, Tough. We’ll get him later when no one’s around to see. With a baseball bat!” He helped his companion hobble away.

“Huh,” Sam said. “I guess there’s bullies everywhere.” She looked up to confirm that the sign really did say The Book & Bat and not some other variation. Then she swung the door open without knocking and hurried straight in. “Hello?” She called. “Uh, Other Sam? Are you home?”

“Sam! You cut your hair again! Don’t you think it might be appropriate to run these decisions past your mother before— What in the world is the matter, dear?”

Sam was leaning faintly against the nearest bookcase and barely managing to keep herself from falling down. Her ears were ringing loudly. She thought her heart must be beating faster than it ever had before. “*Mom???*”

“Oh dear! Are you ill? Should I wake your father? You know he’s not very strong since the accident, but if it’s a real emergency, I suppose we have no choice.”

Sam sank to the floor with a thump and sat staring up at her mother. “Is it really you...or are you a double?”

“Double? What are you talking ab— *Sam???*” She turned and gaped at the other Sam, who, attracted by the noise, had just appeared and was staring at them with open mouth. (This one, Sam Two, now had long hair.)

Sam One got shakily to her feet and pointed at her double. “You!!! You took my *body!*”

“Me!?” He exclaimed. “YOU’RE the one who showed up here uninvited and left me with, with...!” He glanced down at himself. “I haven’t been able to show my face ever since! What are *these!*” he gestured toward his chest. “And I presume you absconded with my, my...Genitalia!”

“No wonder they bully you at school! Who talks like *that!?!?*”

“Boys! Uh, and girls or, or whatever you, *whoever* you... Just don’t argue, *please!* I don’t think I can handle any more excitement right now.” Their mother had one hand pressed against her forehead and the other groping for the corner of a bookcase to steady herself. “Would one of you please explain? Or both of you? And where is your father?! Ned!!!”

“*I* think *you* should explain,” Sam snapped. “I’ve been left on my own ever since the accident! I thought you were dead! You *were* dead! Did you even *try* to find me? I mean, they have whatever your Slowten calls himself, mages or, uh, sages here, right!? Don’t tell me you couldn’t have gotten him to ‘equation’ you back to me if you’d *wanted to!*” She was spitting mad and didn’t know why, hadn’t expected to be, didn’t want to be, but it turned out that she’d been feeling abandoned and deserted for a such a long time that seeing her mother alive did not make her feel better. It made her feel much worse.

“The accident?” Her mother (still assuming it *was* her real mother—it looked and sounded just like her) stared blankly. “The one that nearly killed your, well, *his*, father and me?”

“Of course! Wait, were you hurt too?”

“Concussions,” the second Sam said. “They lost most of their memories. Dad more than Mom. Sorry about that.” He shrugged.

“Wait, what do *you* have to do with all this?” Sam demanded, glaring at him. “You *do* have something to do with it, don’t you?!?”

“I’m sorry if I hurt you,” he said. “I really am. I didn’t realize. I really didn’t.” He frowned.

“*What* did you *do*?” Sam demanded, stomping past her fluttering mother and coming to stand directly in front of Sam Two.

Sam Two pushed his newly long hair out of his face as if he found it quite annoying. “I was an orphan for a long time,” he said, “so I know how it feels. I’m sorry.”

“Sorry for *what*?” Sam growled.

“Well...you see... When *my* parents disappeared ten years ago, um, the life insurance company was suspicious and wouldn’t pay. Finally a judge issued their death certificates and the company had to pay.”

“And this is relevant *how*?” Sam demanded.

“Because I used half the money to buy this store from the old man who used to own it. His health was poor and he wanted to retire. I’d moved in with him and helped out with the bookstore after they disappeared. He was our neighbor.”

“And what did you do with the *other* half of the money?” Sam demanded.

“I paid a master sage the rest of it. He...” Sam Two stopped, looking embarrassed.

“He summoned *my* parents to replace *yours!*” Sam finished. “Right?!?”

“Look, I wanted my parents back, and I hired him to find them. I don’t know what he did exactly. I didn’t think he’d take yours. Sorry.”

“I remember waking up in the hospital next to your father,” their mother said. “They told us we’d probably recover some of our memories, but I didn’t. Except for you. How could I ever forget you! Or was it you?” She looked from one to the other, confused.

“Mom!” Sam’s exclamation was anguished. “How could you?”

“I kept saying ‘Where’s my daughter?’ but they said, ‘No, you have a son named Samuel. It’s the concussion and the lost time that’s confused you.’ We were missing for years, they said.”

“So you believed them, moved in, and forgot all about me?” Sam demanded.

“There was a child to raise and a bookstore to run. And of course your father’s not well. But I never forgot about you! I often dream about having a daughter, so I was secretly happy this week when Sam, uh, *that* Sam, woke up looking for all the world like my long lost you. It was as if my dream had finally come true!”

“And *my* nightmare,” Sam snapped. “First he steals my parents, then he steals my body! So where’s Dad and, and, what’s the matter with him?”

“He’s still sleeping. His hearing’s not very good. Not since the fall,” her mother said. “He gets dizzy and weak sometimes, but he’s been fairly good this month. He

handled the store last night all on his own, so I'm sure he's tired now. We open for night readers, you see. That's a thing they do here... Wherever exactly here is," she added with a puzzled frown.

"So how did it work?" Sam asked, glaring at her double. "They just popped up at the kitchen table one day and you pretended it was *normal*?"

"Not at all," Sam Two objected. "They were found on the street outside. Right there in the road, all banged up, like they'd fallen out of the sky. But it was years after they'd, or, well, *my* parents, had disappeared. Weird, huh?"

"Not if my parents were sucked through a delta by your stupid sage," Sam snapped. Then she paused to think. "It still doesn't explain the car. Why is it here? Is *it* a double, too?"

"My first parents used to drive it when I was very little," he explained. "It was left in the back of a repair shop for years. We got it out once my new parents were well enough to drive."

"That explains the car. It *is* a double. But it doesn't explain the book," Sam said.

"The one in the car?" The second Sam made a little circle with his finger by his temple. "That's Mum. The book was next to her in the road when she was found and she wouldn't give it up. When she got the car back, she insisted we put it there. In case you want to finish it," she'd say. He shrugged. "I wasn't reading it in the first place, but I left it there to humor her."

"I think you remember more than you realize," Sam said. "Mom."

"Do I? I'm sorry but I feel faint. I need to sit down."

They hurried to her and, each taking an arm, guided her to the nearest table and chair. "Could uh, one of you get me a glass of water?" She asked.

"We'll both do it," Sam said, pulling her double toward the door to the back room. "We need to talk," she hissed. "Now."

As they entered the kitchen and work area in the rear of the store, Sam Two said, "I can't be like this!"

"Like what, me?" Sam demanded.

"I think I'm starting to get cramps! What if I get your period! I *really* couldn't deal with that. Turn me back. Right now!"

"Serves you right! Boys are such wusses." She shook her head in disgust.

"I mean it! You've got to undo whatever you did to us!"

"I didn't do this. It's cross-contamination. What about your mage? Can't he help?"

"Sage? I, uh, don't think he'll do any more jobs for me."

"Why not?" Sam demanded.

"I had a little trouble with the payment. See, the insurance company sued to get their death benefits back. They don't like it when people turn up alive again."

"Oh. That's a problem with doubles, I guess. But you kept the store. How?"

He shrugged. “Turns out my, your, parents owned a house somewhere. The mage tracked it down and sold it and we split the profit. It was less than the original insurance payment, but just enough to settle their claim and keep the bank from taking this building. See, I’d borrowed some of the purchase money because I didn’t have enough. It’s been tough trying to make ends meet.”

“You have no idea,” Sam eyed him. “Really no idea. Where did you say this house was? The one you sold?”

He shrugged. “When I was little we lived in an apartment down the block. I never heard about a house before. Strange, huh?”

“That’s because it must’ve been *mine!* You really are an —” She bit off the curse and shook her head angrily. “To think my own worst enemy turns out to be *me.*”

“I’m sorry,” Sam Two said. “I feel terrible. It’s like I betrayed us.”

“Betrayed *me.* And it’s not *like* you did. You *actually* did.”

“I didn’t know. I guess I could’ve asked the sage, though.” He frowned. “But I don’t think I *wanted* to know. Anyway, it’s all in the past and we shouldn’t be arguing.”

“I don’t see why not!”

“There’s an important problem we need to think about, isn’t there?” Sam Two said.

“Yes. How to switch ourselves back,” Sam agreed. “That’s why I came. And to take my parents back with me, of course.”

“Actually, I was thinking about another problem. More of a mystery, actually. Do you like mysteries?”

“No. Get to the point.”

“What we need to think about is what happened to *my* parents? Because if these are your parents, then mine are still missing.”

“I’m sorry about that. Not about anything else, but that’s too bad. How did they disappear?” Sam asked.

“That’s the thing,” Sam Two said. “The car was in the garage because of an accident, like I told you.”

“Are you saying they disappeared when *their* car crashed?”

He nodded. “Just like what happened to you, except I was a lot younger. They found me in my car seat in the back, all alone.”

“Damn!” Sam exclaimed.

“You shouldn’t swear.”

“Wait, when I first met you, you swore. What’s different now?” Sam asked.

He shrugged. “I’m not sure. I just realize I don’t like it.”

“I don’t like it,” Sam said. “And you have my body, you, you, jerk!”

“This isn’t getting us anywhere,” Sam Two said. “I’ll get Mom her glass of water.”

“She’s fine, obviously. Without me! She can get her own damn, darn, water. What we need to do is talk to your Slowten, the one who equationed me back home the last

time I came here. *If* he's still alive. He had a little problem with a grand piano last I saw him. Where does he live?"

"I don't know where he lives, but his office is sort of upstairs. He used to have clients come by, but lately he's not around much, and when he is, he's kind of scary."

Sam headed for the staircase. "He better be around today!"

"Wait, there's a special entry for the upstairs offices. This way." Her double, Sam Two as Sam was starting to think of him, turned and led the way out a small rear door into a tidy back entry hall with brooms and mops and a snow shovel hanging up. ("Are you going to brush my hair while you're borrowing it? It's getting tangled," Sam complained, but he ignored her.)

At the outer door, Sam Two paused and knocked seven times, which seemed very odd, but before Sam could comment, they were hurrying down rickety back steps to a dirty alley. Turning around at the bottom of the steps, Sam Two went up again with Sam following. But now, to Sam's amazement, there were impressive marble steps with brass railings, and they lead up to a shiny green painted door with a shiny brass knob. There was a brass plaque reading *Slowten Quorum, Master Sage*. Beneath that it read in smaller lettering, *By Appointment Only*.

Sam eyed the unfamiliar door. "How did this get here?" she demanded.

Her double shrugged. "He likes to keep a low profile. The only way to find his door is to come through our shop and, if you knock on my back door as you go out, it activates a microfold and switches from our rear door to his front door. Clever, huh?"

There was no doorbell, but Sam Two rapped loudly on the door. "He's probably not here," he said. "I hardly ever see him anymore."

"Why's his door so hidden?" Sam asked. "Is he a criminal or something?"

"Didn't you know? They outlawed sages eight years ago. So yes, I guess he is. But he's the best at what he does, at least that's what people say."

"Huh. He sure messed *my* life up. Too bad he doesn't seem to be here."

"I'll knock again."

"No, let me." Sam stepped up, elbowing her double aside. "You really should run a brush through my hair," she added. "I don't want it all matted when I get it back."

"If this goes on much longer I'm going to cut it," he said. "They tease me enough as it is. I can't show up at school looking like this!"

"*I* do. Every day! But you might want to wear a bra. Move over." She rolled up her sleeve and studied the scrawlings on her arm. The equation for delta was still marked in blue ink, and as she focused on it, she felt a jolt of prickly power. "Do your thing," she said, and pressed her hand against the green door.

It seemed like nothing happened. She thought she was still standing at the door with her hand pressed against it, except... Yes! Now she was *inside* the door! "Evil body-stealing double, are you still out there?" she called.

A knock and a loud "Let me in!" confirmed that he was.

She reached for the handle, but paused. “Wait there,” she called, then turned and began to climb the stairs. The entry hall was small and went only to a staircase with a deep red runner of soft wool that muffled her footsteps.

Upstairs, the staircase opened onto a wide hallway. A row of windows cast slanting winter light on a half-dozen doors that ran down the far side of the long corridor. It was very still and quiet.

Sam frowned. “Anyone home?” she called. “Slowten?”

No answer.

She went to the first of the doors and rapped loudly. Then she tried the knob. At first it seemed locked, but then (with a little pulse from the delta equation on her arm), it turned. She held the door cracked slightly open as she paused, wondering who or what might be within. From the sounds coming through the crack, it was not your ordinary room, *that* much was for sure.

Chapter 14 Behind Door One



Sam Two was pounding on the entry door downstairs and shouting, but Sam ignored him. There was another sound, nearer and much more interesting, coming from the cracked open doorway. It was the sound of melodious birdsong along with, if Sam's ears weren't deceiving her, the gentle swish of waves meeting a sandy beach.

“What in the world?” she muttered, pushing through the door and stepping immediately onto sand dappled by feathered shade. She looked up. Palm trees! She looked ahead. A sandy path wove through a coconut grove to a sunny beach where a grass hut perched above a curve of sand and a bright blue bay. White gulls soared above. A coconut fell with a thump next to Sam. She jumped.

The coconut was brown and fibrous and heavy. She picked it up with both hands and put it in the doorway. She could still see the quiet hallway through the door, but wasn't sure what would happen if she let it close. Satisfied with her precautions, she dusted the sand and coconut fiber off her hands and headed down the path toward the sea.

A pair of rainbow colored finches swooped past her, singing. A gigantic crab scuttled into a hole. Her sneakers were filling up with sand. She took them off and carried them in one hand.

She came out of the shade and squinted as tropical sun shone off the beach and sparkled on the waves. *Ahh. Nice.* She smiled. At least *one* of the many strange things that had happened to her seemed genuinely fun.

She stopped to roll up her pants, then went down to the water. The damp sand felt wonderful between her toes. A blue wave crumpled upon itself and frothed up the sand, swirling brightly around her ankles.

She stood there looking out to sea and letting the waves wash over her feet as the sun warmed her face.

“Nice, isn't it?”

She was so startled that she dropped her sneakers in the water and had to rush to grab them before a wave washed them away. Spinning around, she stared at the man who was standing in the opening to a nearby grass shack. “Slowten?” she asked.

He nodded.

“What are you doing here?”

“Do I know you?” he asked.

She studied him as he stepped out into the sunlight. “Actually, I don't think so,” she said. He was not the bearded sage, and not *her* Slowten either. His hair was longer, thicker, and bleached to a lighter brown by the sun, and he was very tan and in far better physical shape. “Do you jog or something?” She asked.

His eyebrows arched. “For an hour each morning. Are you writing an article about beach life?”

“No, but I do have some questions. Uh, do you always wear such loud shirts?” She couldn't help herself. The red, gold, turquoise and pink Hawaiian print shirt was just too bold not to comment on.

“Yes, as a matter of fact, since I only *have* two shirts and they're identical. Doubles,” he added, eyeing her. “Speaking of doubles, you never know when you might run into one. And I have just remembered that before I moved here I met a girl who looked rather like you. She was running away. Are you running away too?”

“What was she running from?” Sam found herself extremely curious.

“Well, shall we just say, some of the so-called guardians and sages are not what they appear to be or who they *ought* to be.”

“Huh. How about if we also explain what we mean in a little more detail. Please.”

“You don't know about any of this? Interesting. What world are you from?”

“Do they have names?”

“The guardians number them, but that's no help if you don't know your own number, is it?”

“Uh, not really. Tell me about this girl you met. Is she here?”

“I'm sorry, but I don't think she made it. She came to me for help and I tried my best to bring her with me.” He frowned. “I had a shingle out, you see, back in those days.”

“Shingle? You mean a sign?”

“Right. In my world, I was an Equationist. I wasn't a particularly well known one, but I made a steady living helping people find lost things. It was rather my speciality, so I suppose it made sense that the girl came to me asking to make her lost. Hide her, you see? And I her parents had told her that I was distantly related.”

“To her?” When he nodded, Sam added, “That makes sense. What was her name?”

“Samilla. Isn't that yours?”

“Uh, no. There's another thing I can be thankful for, I guess. Was Samilla an orphan, by any chance?”

“No. But her parents ran into trouble, so she came to me.”

“What kind of trouble?” Sam asked. “A car accident?”

“They'd driven into the city to look for some books. Apparently she was an avid reader. Are you?”

“And?”

“And there happened to be a rather unusual bookstore in my neighborhood. When the guardians came and took her parents, she was in the back of the store looking for an obscure title. She managed to run out the rear door before they found her. Came right to me, so what could I do? I had to help. Although,” he added, shrugging, “it immediately made me an enemy of, well, whoever is in on the grand conspiracy. I trust *you’re* not?”

“What’s the name of this bookstore?” Sam demanded.

He glanced from side to side before answering, and when he finally did, it was in a whisper, which seemed silly to her since they were obviously the only people on the entire, broad, sunny beach. “The Literary Lion,” he said. “With a sign portraying a book in the jaws of the head of a lion wearing spectacles. Do you know it?”

Sam sighed. “Probably. There seem to be lots of variations. Mine is called The Book & Cat.”

“Is it? Are they *friendly* there?”

“No one’s there. It’s always closed. Well, almost always. But...” She stopped, not sure how much to tell this strange new Slowten. “Uh, what exactly happened to my double?”

“Silly?”

“That was her nickname? How horrible!”

“I think it was in jest. She was the most serious person I’ve ever met. Read the great Russian novelists.”

“Like Dostoyevski?”

“Oh yes. The Sisters Karamazov, Fame and Punishment, and so on. Too heavy for my taste but she had several of them, old hard-cover editions, under her arm when she came to me.”

“Those titles don’t sound quite... Never mind, tell me about the girl. What did she say?”

“She told me that five almost identical looking men in dark suits and light blue glasses had come into the bookstore all at once and made her parents disappear with a *pop*. Advanced equation-work, obviously, and the description sounds like guardians, of course. But the owner, who was a guardian too, wasn’t in on it because they popped him away along with the parents. Nice old gentleman who loved his antiquarian books.”

“But they didn’t catch, uh, Silly?”

“I believe she had been hiding behind a bookshelf. Oh, but first the guardians had demanded to know where she was. Their interest was in her in particular. Her parents refused to say, so, *pop*.”

“Killed?” Sam asked.

“Hard to say. Probably sent somewhere too far away to get back.”

“My parents seem to keep getting zapped away in every version of my story. Odd.”

The Slowten double frowned. "I gather they were targeted because of their daughter. It was an unfortunate genetic accident."

"Are you calling me an 'unfortunate genetic accident?'" Sam demanded.

"If you value your peace and quiet, yes. Apparently you and your doubles were born with a natural affinity for slipping easily between worlds. Anyone *might* do it, or be forced to do it, but very few can do it without side effects. No memory loss, no weakness or early aging?" he asked, eyeing her.

"Uh, no."

"No temporal anomalies?"

"What are those?" she asked.

"Lost years, for instance?"

"Me? No."

"There! Quite a talent. My doubles and I are fairly immune and so are the guardians, but we thought we were unique until you came along. You see how you might seem to be a potential challenge to people who are accustomed to controlling all inter-world travel?"

"But I wasn't bothering anyone! I don't think my doubles were either."

"Maybe most were not, but a few were gaining enough skill and power to be problematic. And men like those guardians worry about the future. I doubt they wanted to wait and see how much of a problem you'd be when you grew up. I & D is their motto."

"What's that mean?"

"Identify and destroy."

"Oh," she glanced up and down the beach, her initial pleasure having given way to fear. "Uh, what I really wanted to ask you about is one of your doubles. 'Long fur coat, dark beard? I'm hoping he survived a run-in with a piano.'"

"You came through his door? I see." He frowned. "I do wish he wouldn't put doors all over the worlds. Sticking your nose into other people's business isn't such a good idea, you know." He gave her a meaningful stare.

"What? Me? No! I'm just trying to get back my, uh—to fix something. An accidental change. From contact contamination."

He came closer. "Is that so? Strange. We were just discussing how you and your doubles aren't bothered by inter-world symptoms. Contact contamination is a rare problem, you see. Like a peanut allergy. Certain people are prone to it, but I wouldn't have thought *you* were."

"Well, it happened," she snapped. "Which means the traits can be switched again. Right?"

He gazed out to sea. "Perhaps," he said. "But I would recommend you find out who might have had an interest in making this transfer happen in the first place. Someone might be trying to keep you and your doubles apart while they work on getting rid of all of you. D & C—uh, divide and conquer. Right? Also a popular strategy with them."

“Are you saying someone did this to me on *purpose*?”

He shrugged. “Maybe they did something to you to make it more likely you’d have issues with the first double you encountered. Did you have contact with any powerful delta manipulators before you met this double of yours?”

“Ye-es, as a matter of fact.” Sam frowned. “Can you fix it?”

He shrugged again. “I don’t think so. I’m just a beach bum. What do I know about the avarice of sages?”

“What *do* you know about—wait, aren’t you a sage yourself?”

He studied her thoughtfully. “In some worlds,” he said, “people with talents like mine are sages and use their skills to enrich themselves. I do not. That is why I am on this deserted island where no one is supposed to be able to find me. I hope you didn’t lead anyone here?”

“I came by myself. Can you help me find the Slowten who made that door?”

“If he’s missing, I wouldn’t go poking through his doors. He came here asking questions, too. Lots of them. He knew more than you, but still...”

“Still what?” she demanded.

“Still not enough to avoid trouble, I’d guess, since he seems to have disappeared.”

“Why did he make a door to *your* beach?” she demanded.

He shrugged. “Tracking down his doubles one by one, I think. He asked me about my story, but I don’t think I was helpful. He expect he found more clues elsewhere. Uh, I think you should go now.”

“And try the other doors?”

“If you wish. Or find a quiet place to hide, like I do. But not here. You didn’t leave his door open, did you?”

“Uh, of course not.” She frowned.

“Oh dear,” he said. A dark shadow had fallen over them. She paused, puzzled, then looked up.

A large piano was falling out of the blue sky as Hawaiian-shirt-Slowten backed rapidly away from her.

She raised her arm, the one with the delta equation on it, and shouted the first and only thing she could think of based on her limited very algebraic knowledge: “Divide by a thousand!”

“*Pop, pop, pop, pop, pop*, and on and on, miniature pianos rained down around her and made little craters in the sand.

“Good work,” he said. “I’m not quick enough for dueling. In fact, I really ought to be going.”

“What’s *that*?” Sam exclaimed. A rumbling sound was audible in the distance.

He glanced out to sea. “Tsunami! You must’ve been followed by someone *very* powerful. Too bad. I was enjoying my beach vacation.” He gestured in the air and

muttered some math. A door appeared. It was a modern full length glass door. He swung it open and stepped through. As soon as it closed behind him it was gone and so was he.

And he was right. There was a gigantic wave racing toward shore.

Sam sprinted toward the palm trees and up the sandy path. The oncoming wave roared madly as it thumped onto the sand and rushed up the beach, snapping tree trunks and tumbling them toward her. She threw herself into the second floor landing just before the wave caught up with her.

Cold, sea-weedy water burst through the door and pushed her from behind, knocking her off her feet and carrying her flailing and sputtering down the stairs. She washed into the entry door with a thump, along with several fish that flopped helplessly on the carpet as the seawater sluiced under the door. From outside, her double shouted, "What's going on?!?"

"These people aren't very nice to fish," she said as she opened the door and stood there, dripping wet.

"Who? The ones who keep trying to kill us?" He asked.

"Yup." She stared at the street behind him. "Grand pianos?" She asked. There were three large piles of rubble on the street with tangles of wire and scattered white and black keys.

"They fell out of the sky one after another. It was all I could do to dodge them. Someone's not happy we're here."

"Not a coincidence," Sam said, frowning.

"What?"

"That a piano nearly fell on me, too."

"It's distinctly uncivil," Sam Two complained. "I don't even *play* piano! Why would anyone want to drop one on me?"

I don't know why because you hardly seem like a threat to anyone's evil plots. But I think I do know *who*," Sam said. "And we're going to ask him why. Come on."

"Wait, are you sure it's a good idea to *look for* the person who wants to squash us?"

"Or people," Sam said. "I think there's a whole conspiracy of people who apparently own a piano manufacturing business in some world, since they obviously have pianos to spare. And I think they switched us to try to scare us from working with our doubles, so yes, it's definitely time to confront them. However," she added, pausing to think, they *are* quite powerful and dangerous, so..." She began to roll up her sleeve.

"So we should hide?"

"So *we* need to be powerful and dangerous." She studied the delta equation on her arm. The ink was beginning to fade. "In theory," she said, "this gives me the power to make all sorts of changes. Like, what if it were a permanent tattoo? And what if it was on both of us, so I won't have to worry about protecting an incompetent and annoying double who happens to temporarily have my body in his care?"

“Hey! I dodged the falling pianos, didn't I? So—*ow!* What the heck?” He was doubled over, gripping his arm.

“It was painful,” Sam said, studying her new tattoo, “I admit. But worth it.”

“What did you *do* to me?”

“Roll up your sleeve. Let's see. Good. I'm getting the hang of this.” Sam smiled.

“I don't want a tattoo!”

Sam rolled her eyes. “I can't believe you're my double. Grow a spine! Now, how do we turn this into the regular door? Knock seven times again?” She proceeded to do just that, and when she opened it, they were looking into the rear entry of The Book & Cat. They could see their mother at the table, sipping from a teacup.

“Oh there you are!” their mother said, sounding artificially cheerful. “I decided to put the kettle on. Nothing so soothing to jangled nerves as a hot cup of tea. Would you like to join me?”

“Can't,” Sam said as she hurried by. “Got to track down our would-be assassins before *they* find *us*.”

“Oh dear! Well, I'll keep the kettle warm.”

“Uh, I'll try to be home in time to cover my shift tonight,” Sam Two said as he followed Sam into the front of the store. “But if I'm not...”

“Wait, dear, uh, dears! Where are you—?” But they were already out the front door.

Chapter 15

Cats



They stood side by side on the sidewalk, staring up at the bookstore's sign. It was swaying gently. A breeze had come up. "Uh, what are we doing?" Sam Two asked, starting to shiver.

The version we need is in Japanese with a white cat on it. Help me switch it."

"Switch the sign? What do you mean?"

Sam sighed. It was annoying that her double didn't share her knowledge, but that didn't seem to be how it worked. "Okay, this bookstore is an important nexus and its door can lead to multiple worlds." *Pop*. "There, see?"

"Oh! Uh, it's in German, I think," Sam Two said. "*Buch und Katze*. And there's a little grey cat. Cute."

"But the wrong world," Sam said. "She concentrated on her tattoo and felt a sudden jolt.

"Wait, is it in French now?" Her double exclaimed.

"*Le Chat Littéraire*," Sam read, frowning. The sign and the door were blue instead of green. The cat on the sign was black and was holding a book in its forepaws instead of sitting on it. "Slowten would like this world," Sam said. "I bet they serve croissants instead of scones."

"Should we go in?" Sam Two asked.

"No, it'll just complicate things to add any more worlds to the puzzle right now. And what if we run into more of ourselves. Or more enemies? I'll try to find the right world."

Pop. The door was orange and the sign read, *Zeekat Boekenwinkel*. The creature on the sign was a mer-cat. There were tulips blooming in window boxes outside the shop (despite a dusting of fresh snow) and the sidewalk was made of cobblestones instead of bricks. "That's not it either," Sam said, beginning feel annoyed. "I'll try again."

Thump. The door was black painted wood and so was the sign. Now it read, Schrodinger's Cat & Books. There was no cat on the sign, just a painting of a metal box with a locked lid. "Hah! That's really funny!" Sam Two said. When Sam stared at him, he added, "The cat-in-the-box paradox? It's alive *and* it's dead until you open the box and both possible realities collapse into one state. No?"

Sam glared at her double. “No. Are you a much more nerdy nerd than I am?”

“I like to read,” he said with a shrug. “And I read a lot.”

“So do I, but not physics. And we don't need a cat in a box.”

“But that’s what this bookstore is,” Sam Two said. “It’s like the box! Inside it, there are endless possibilities. Choosing and entering a door makes one of them possible and excludes the rest.”

“Different *worlds*, not possibilities, unless they’re the same... Oh hell, I don’t care what you call them, I just know which one we need!” Sam glared at her double. “If you’ll be quiet, I’ll keep trying.”

He shrugged again.

She pulsed with energy as she tried once more to take them to the Japantown version and the sidewalk gave a slight tremor under them, but when she was done the sign read, *Anu a Puke*, and the cat on the sign was wearing an Hawaiian print shirt.

“I’ve always wanted to go to Hawaii,” Sam Two said. “But why is my store on an island in the middle of the ocean now?”

“It’s probably not,” Sam said. “The neighborhood must be Hawaiian in this world. Hang on, I’ll try again.”

“I’m getting a headache,” he complained. “Each time you do that I feel like energy’s being pulled through me. Isn’t there some better way?”

“Maybe. *Cherche le chat*,” Sam muttered. “I’m going to try to call the white cat. *He’ll* take us there. He brought me the first time, so he knows how.”

“Why would some cat know about alternate worlds?” Sam Two demanded.

“Cats can slip from world to world more easily than people,” Sam said. Let’s see if I can call him.” She closed her eyes, raised her tattooed arm, and spun slowly around, trying as hard as she could to push a request out to the white cat.

“The street’s filling with cats,” Sam Two said. “Are sure this is safe?”

“Wow. How many worlds *are* there?” Sam exclaimed when she opened her eyes. “There’s the white one. Here, *neko-chan*.” She bent down and reached her hand out and the white cat came up and touched her with its nose.

Something shifted. The ground shook with a mild tremor again. Then the other cats were gone and a light snowfall filled the crisp air, dusting the colorful paper lanterns on the street.

“Stay close,” Sam said, “and watch out for the waitress. She’s not nearly as nice as she seems!” Then she swung the door open and stepped inside with the white cat beside her and Sam Two following close behind.

She had expected to walk into a busy teahouse, but they had not put it back in order. The tables were empty and the lights were off. Broken glass, water stains, and dead *koi* littered the floor. In the middle of the room was the splintered carcass of a large black piano. She frowned and hurried to it. Leaning over, she began to pull tangled wires and splintered wood out of the way. “Here, come help me move this junk,” she said.

“Uh, why?” Sam Two asked, coming hesitantly forward. “What are you looking for?”

“A body,” Sam said. “I saw this piano fall on the Slowten who lives, I mean works, in your building, or at least one who looked like him.”

“A dead body? A corpse?!? That's what you want me to look for!!?!? No wa— Wait, if he's dead, why did you bother going into his offices to look for him?”

“Because I doubt he's that easy to kill. This is just to confirm he survived. See? No dismembered body parts. Happy?”

“I guess.”

“But...” Sam spun slowly around. “It’s oddly deserted. I think our enemies have left.”

“Too bad about the fish,” Sam Two said, nudging one with his toe.

“At least there's something for the cat to eat,” Sam pointed out.

“I'm hungry. I want to go home and make a sandwich. Do you know what I usually do when I'm home?” He didn't wait for Sam to reply before adding, “I sit at a quiet table and read and eat sandwiches! All this adventuring is—“

“You are an unbelievably useless and sniveling disappointment of a double!” a strong voice interrupted.

“Hey! That's a bit harsh, don't you think?” Sam Two objected. “And I *did* give you those sneakers. You could try saying thanks!” He sounded quite offended.

“Actually, that was harsh, even for me, because it *wasn't* me,” Sam said. “But it sure *sounded* like me. Like us.” She frowned. There was no one else in sight.

“*Both* of you are *amazingly* clueless,” the voice went on. “I don't know how you've survived this long. Dumb luck, probably. Very dumb.” And then a body appeared with a sizzle of powerful energy.

They both stood gaping at her, him, or it in utter amazement. Although very like them in basic build and features, the new arrival was startlingly strong with rippling abs quite visible through a tight fitting body suit that covered only the top of her legs (or was it his?) and left the shoulders and most of the back bare—all of which were strongly muscled and boldly covered in red and black tattooed equations that wrapped around limbs, arched over shoulders and wound up the neck to end with a bold flourish on top of a smoothly shaved, completely bald head.

“Don't tell me. You're both named Sam. And you are male identified?” she, he, or they asked, turning to Sam.

“No! It's just that my body got switched with his. But the real question is, who are *you*?”

“I am too powerful and multifaceted to be confined by such narrow annoyances as gendered pronouns,” the new arrival said. “Refer to me as *they* or *them*.”

“Oh, like the royal we,” Sam Two said. “I've read about—”

“No. Now tell me, why are you bungling idiots causing huge ripples all across the interconnected worlds? Is something important enough happening in your boring little section to merit my invaluable attention?”

“It's hard enough to accept that one of my doubles is a greater nerd than I am,” Sam said, studying the new arrival. “I *really* can't believe I have a double as arrogant as —*Hey!!*” Sam had to raise her newly tattooed forearm to block a lawn mower that had appeared with a roar in the air above her. In an instant, a thousand toy sized mowers were falling around them and bouncing on the floor and whining and grinding up bits of broken glass. However, the broken glass and fishy puddles seemed to be too much for the miniature mowers, and soon most of them had hiccupped to a stop.

“Hmm. Division defense. Not bad for a rank amateur, but it would be *so* much smarter just to bump the object through another inter-world opening and make it disappear entirely,” their extreme new double remarked, eyeing Sam.

“Did *you* drop that mower?” Sam demanded, her hands clenching into fists.

They shrugged. “Just a routine training exercise. We send all sorts of things at ourselves for practice: Speeding locomotives, bullets, falling buildings, rattlesnakes. *We* are ready for *anything*.”

“That's stupid!” Sam snapped. “Did you send pianos at us too?”

“Pianos? No. Is this one of them?” They gestured with a heavily tattooed hand toward the pile of black splinters and shiny wires.

“Then you're not the only one who likes to drop things on me,” Sam snapped. Speaking of which...” She walked over to stand close beside her third double. “I think I'll stand here, just in case you feel the urge to drop any more lawn equipment.”

“I could kill you a hundred different ways,” they said.

“Charming. But?” Sam raised an eyebrow as she studied the strangely familiar and yet unfamiliar face from close up.

“But you're still alive, so you've deduced that I don't want you dead. Tea?”

“Why not. Beats lawn mowers. Sam?” Sam said, waving a very worried looking Sam Two toward the nearest table. “Shall we?”

“Um, well, if you're sure it's safe...”

“Is it always so weak and nervous?” Sam Three asked as Sam Two scraped a chair over and perched tentatively on it.

Sam shrugged as she took a seat. “Maybe.”

I'm Sam,” the new double said.

“Of course you are,” Sam said. “Is it short for something?”

“Sammass, actually, but you can call me—”

“Sam Three,” Sam said. “If you don't mind.”

The newest Sam glared at them, then shrugged. “Why not.” Then they snapped their fingers. The table had been dusty and bare but now a full compliment of teapots and cups appeared with a loud *pop*, along with dishes of Japanese tea rolls.

Sam eyed her new double. "Where exactly did you find all this?"

"A finding equation," they said, "and a quick dip back in time to a moment when the kitchen was active."

"You stole someone's order?"

"From last week," Sam Three said, reaching for a bun. "But instantaneously, so don't worry, it's still hot."

"And exactly *how* did you do that?" Sam persisted.

The new double touched the markings on one of their biceps. "With this tattoo and some *very* rigorous training, not to mention unique talent. I have the ability to will things here with a thought. You see, I *am* the delta. I was a powerful delta of gravitational waves even before I tattooed the delta equation on my abdomen, and now, with these tattoos, I'm really *quite* amazing. All my doubles have potential, but none has developed it as fully as I. That potential is why they want to get rid of all of us, of course." They took another sip of tea.

"That's not fair!" Sam Two complained. "I don't see why *I'm* a threat to anybody!"

"I don't either," Sam Three scoffed. "Which might explain why no one's tried to kill either of you until recently. But *my* reputation has led to numerous attempts on my life. Once I came into my power, they realized they needed to prevent more of us from developing. You are threats to them because in theory, although *only* in theory, you could learn to do what *I* do."

"Which is?" Sam demanded. "Aside from poaching people's restaurant orders?"

"More tea?" Sam Three poured hot green liquid into their cups.

"Well?" Sam demanded.

"All right, I'll tell you what I know and what I do, but you must keep it confidential." They leaned forward menacingly and added, "With your lives. Understand?"

"Uh, I'd really rather not know any secrets I have to protect with my life," Sam Two objected. "Now that you're here, I may as well go home and leave this to the two of you."

"Be quiet and listen," Sam snapped. "Okay, you, out with it," she continued, eyeing Sam Three.

"Very well." Sam Three set their teacup down and sat back. "I come from a world where the priests at *Toguchi Shinto* shrines were a major power. They practiced delta arts. In fact, they had a temple down this block in place of a church in your world." They addressed Sam when they said this. "In your world," they continued, turning to Sam Two, "there's a Japanese Buddhist temple too, but they just meditate, they don't do manipulations of time and space. Very primitive, so I suppose you can be excused for being so hopelessly helpless and stupid."

"So condescending kind and understanding you," Sam Two said with a forced smile.

Sam leaned forward. "Tell us about you," she prompted, "and what you did to make the guardians of the boundaries angry."

"Guardians? Hah! Maybe that's what they were in the old days, but now they just try to profit from their positions."

"So what are they really?" Sam Two asked.

"A big lie," Sam Three said. "And they're getting incredibly rich and powerful, as if they weren't rich and powerful enough already, which they were. But I don't know how. I haven't figured out what they're doing. Yet."

"You skipped," Sam objected, "the part where they first noticed *you*."

"Hmm." They took a slow sip of tea and set the little cup down even more slowly. "It's hard even for someone as strong as *me* to talk about this, but..." They squared their shoulders. "It was years ago. I was studying at the temple's dojo with Slowtensan, the master. I'd just won the annual tournament in the youth category by beating teenagers two times my age. He said I was the most promising student he'd ever had."

"Wait, are you telling us they let children drop lawn mowers on each other in tournaments?!" Sam exclaimed.

"Not at the youth level. They give you challenges and you tackle them one at a time, with judges awarding points. Still, it's fairly dangerous. That year, several contestants were injured during the earlier rounds. However, that wasn't the main problem." They paused to sip tea.

"Well?" Sam prompted. "What *was* the main problem?"

"Six of the so-called guardians crashed the award ceremony. Literally. In a freight train. They delta-ized it from its track and it burst through the side wall of the temple at something like a hundred kilometers an hour and crushed almost everyone, including my parents."

"Oh! I'm so sorry," Sam said.

"Sam Two frowned. "The timing's about right," he said.

"You lost yours too?" The third Sam guessed. When Sam Two nodded, they added, "My loss may have created an imbalance, and with all the deltas being torn open in my world, it could have formed ripples across many other worlds."

"Wait, are you saying that when you lost *your* parents, ours disappeared too?" Sam Two demanded.

"She's finally gotten something right," Sam Three snapped.

"He," Sam corrected. "He's just borrowing my body. It's not his. Wish he'd brush my hair though." He frowned at Sam Two.

"Whatever," Sam Three said. "The point is, all our parents were subjected to a ripple effect that could have gone on across multiple worlds for years, maybe still is."

"And I bet it was amplified when *you* hired that sage," Sam added, studying Sam Two. "But go on with your story," she prompted, turning back to Sam Three.

“Of the hundreds of people at the award ceremony, only the Master and I were quick enough to save ourselves from that first attack. The train passed right through the temple, leaving devastation behind it, and then the six impostors appeared in front of the altar. They wanted to put an end to the temple and its school forever, so they at once began to duel with my master.” They frowned and stared into their teacup.

“And?” Sam prompted.

“He was very strong. He killed three of them and I got one more. But I was young then and not used to mortal combat. When he collapsed, I rushed to him and...”

“And?” Sam prompted.

“I’m embarrassed to say I burst into tears. It was the last time I cried, I assure you. Anyway, that moment of weakness almost cost me my life. But with his final breath, my Master spoke the words needed to transfer the ancient equations carved all around the altar directly onto *me*.” They paused to rub a tattooed forearm with a tattooed hand. “It was excruciatingly painful, but I was highly trained knew at once what he had in mind. I *became* the temple. Its powers were transferred entirely to me. And I leapt to my feet and, even as he died, I killed the two remaining attackers. Brutally and painfully, of course.”

“Of course,” Sam said. If there was a note of sarcasm in her tone, the others didn’t seem to notice.

“So that’s good, right? Enemy defeated? Back to normal?” Sam Two asked.

“No! From that moment I was marked. There are hundreds of worlds and many of their guardians and sages pursued me. In some worlds, the doubles of my Master are working against me too. I’ve been the hunted *and* the hunter ever since. It’s what I do.”

“That’s awful,” Sam Two exclaimed.

“I’m not looking for your sympathy. I just need you to be a little less clueless.”

“Have you, uh, killed anymore—” Sam Two began.

Sam cut him off. “Never mind about that,” she said. “Because we’re *all* quite clueless, actually. None of us knows what this inter-world conspiracy is about or why people with delta skills threaten it. I say we find out. Now.”

“So naive!” Sam Three said, shaking their head. “I’ve—”

“Yes, I’m sure you’ve been kicking ass all over multiple worlds, but now you have us,” Sam interrupted.

“And *we* have a clue,” Sam Two added. “The sage’s offices in my world.”

They looked at him expectantly.

“A building that has a tropical beach behind an ordinary looking office door, and that ejects someone with a tidal wave and flushes them onto the street, where, I might add, there are falling pianos... That’s a *lot* of clues, actually,” Sam Two said. “Let’s go look behind the rest of those doors. I bet my sage opened doors onto other worlds to look for clues himself. He was probably trying to figure out what was happening.”

“Or you might just discover even *more* dumb ways to die,” Sam Three said, frowning. “Maybe he was just snooping on his doubles to try to get hold of some of their

illegal wealth and power. But I suppose you *could* be right,” they continued. “It’s odd that your Slowten, who apparently was or is a powerful delta-worker himself, would have created portals like that in his office. Maybe he really was researching the conspiracy. Anyway, odd is interesting. I’m always attracted to it.”

“Why doesn’t *that* surprise me,” Sam muttered.

Chapter 16
Door Number Two



Sam Three put their teacup down, pressed their palms together in a traditional gesture, and, *pop*, disappeared.

“What the...?” Sam Two exclaimed. “Wait, do you think they went without us?”

“Probably. Not a team player, I don’t think,” Sam said.

“What will Mother say if they show up in her kitchen?” Sam Two exclaimed.

“And how did they travel without using a door or portal or anything?”

“The equation-tattoos,” Sam said, smiling.

“Don’t tell me you want *us* to go popping off like that?!” Sam Two exclaimed. “It doesn’t look at all safe.”

Sam smiled even wider. “I think they used *this* equation,” she said, rolling up her sleeve on what appeared to be a bare arm. But as she passed her hand over her arm, a delicate pattern of mathematical symbols appeared in sepia tones, looking like a highly scientific henna tattoo. “I bet they let their guard down very often, but they underestimated us. Well, me.”

“What did you do?” Sam Two exclaimed.

“I took the liberty of copying all their tattoos onto me, but I made them so light that they didn’t notice. If I concentrate on one, I can make it darker for long enough to use it.”

“Wait, isn’t that *my* body? I don’t want to be covered head to toe with tattoos!!”

“Too bad. For now it’s mine and I need them. But, assuming we find a way to switch back, it might be helpful too...” She closed her eyes and concentrated. And as she concentrated, equations appeared over almost every exposed bit of skin. Even one cheek was covered—and they were beginning to show lightly on Sam Two’s skin too.

“You look awful! Get those off my body right n— Wait, what are you—*ow!* **Hey!! Ahhhhhh!!!!**” Sam Two convulsed madly, clawing at his arms and legs as he tumbled off of his chair. He hit the dusty floor with a *thud* and thrashed around in pain, looking for all the world, Sam thought, like the poor koi fish when they’d been blown out onto the floor.

“You’re not dying,” she snapped. “Pull yourself together.”

“You have no idea how much pain I’m in!”

“Actually, I did it to myself first. Remember?”

“I *ow!* didn't see you suffer in the least!”

“Because I didn't show it. Get up.” Sam grabbed her double's hand and yanked him to his feet, but he was still reacting to the pain of the instant full body tattoo and he jerked awkwardly to the side, accidentally pulling both of them down.

They hit the table and tipped it over.

The table landed upside down and partially on top on them, pressing them together on the floor. “Get off me, you idiot!” Sam growled, pushing the body that was sprawled above her. And as she scrambled to her feet, she pushed her long, wavy hair behind one ear to get it out of her face in a habitual gesture... But not a gesture she'd needed to use in recent days! “Wait, what just happened?!” she exclaimed.

They stared at each other. “You're you again,” Sam Two said, “and I'm me!”

Sam was, indeed, facing a double with short hair and boyish features. Her double gaped at her in surprise, then touched his own crotch quickly with one hand. “It's back!” He cried.

“Don't ever do that again,” Sam snapped, glaring at him. However, although she did not want to show it, she was quite relieved too.

“How did you do that?” Sam Two demanded.

“I didn't do anything. You pulled me over and when we got back up we'd switched bodies again. I guess being covered in delta equations makes us more open to that sort of thing. I suppose our bodies wanted to go back to how they're supposed to be. Restoring the balance or whatever.”

“Maybe so, but what if it's random and next time we bump into each other we switch again? I'm staying away from you!” He took several steps backward.

“Let's hope not, because you're going to have to stick close to me if you don't want to get lost. I'm about to try our crazy double's trick of popping off to another world without having to use The Book & Cat's front door as a portal.” Sam followed this statement with a rapid stride forward and a quick grab of her double's hand. Then, visualizing the kitchen table where their mother had been sitting, she activated her tattoos once more.

There was a roaring like some whirlwind had picked them up. She felt giddy, weightless, dizzy... And then they were tumbling onto the kitchen floor next to the table where their mother was still sitting primly with a teacup in her hand.

“Hello, Dear, uh, I mean Dears.” Her voice was as calm as she could make (or fake) it but her hand shook, rattling her cup as she set it down.

They got to their feet and stared at the table. Their bald, heavily tattooed, strongly-muscled double was sitting across from their mother, sipping tea.

“Well, now,” their mother continued. “How nice!” (Forced smile.) “Won't you join us? Fortunately I put the large teakettle on. I hope this is all of you? We're running out of chairs.”

“Mom!” Sam Two, now looking like his usual self, exclaimed. “Why are you talking about nothing but tea?!”

“I’m trying to be hospitable,” she said. “Is that you back in your own body again, dear? How nice. Although I *did* enjoy having a daughter again, even if it was just in passing.” (At this comment, Sam frowned and bit her lip, but no one noticed.) “Tea, anyone?” she repeated, looking at Sams One and Two.

“Why do you keep talking about tea?” Sam Two repeated.

“Because its tea time, of course. Now, have you all met? This well mannered and very self-possessed young, ah, person, has been telling me about some of our neighboring worlds. So well travelled. So well spoken! You could learn a thing or two from him, uh, her, or, um, it, don’t you think?”

“Them,” Sam Three corrected with a gracious smile. “And I do appreciate the words of support,” they continued, setting down their teacup. “Plus the hospitality. English Breakfast Tea. Mmm. A nice contrast to the green tea we were previously enjoying.”

“I’m glad you’re hitting it off,” Sam Two said, eying his mother. “But did *they* happen to mention the bit about the assassins that constantly chase them?”

“How unpleasant!” their mother declared. “I do hope you’ll stay away from assassins, dears. Please make a point of it. Now, would you like me to prepare some jam sandwiches?”

And tuna—” Sam Two started to say, but under the fierce look directed at him by Sam One, he stopped. “Oh well. I guess there’s no time for sandwiches,” he said, sounding regretful. “We have to go.”

“What’s the rush? I’m *so* enjoying tea with *our* mother,” Sam Three said, smiling. She stayed seated, teacup in hand. “It *is* quite nice to have a mother to make a fuss over you, isn’t it? I’d almost forgotten. And I’ve never had a, what is it, jammed sandwich?”

“You’ve had more than enough tea and sympathy already,” Sam Two snapped. “And that’s my personal mug you’re using.”

Sam Three examined it. “There’s a puppy on it. How immature. Oops.” They let the mug slip out of their hand and it bounced on the edge of the table, sloshing tea everywhere, then smashed on the linoleum floor, breaking into dozens of pieces.

“You stupid jerk!” Sam Two shouted, stepping forward, hands forming fists.

“Forget about the mug,” Sam said. “We have doors to explore, preferably *before* anyone finds us again and drops more pianos on us. No, don’t pour more tea,” she snapped at Sam Three. “You’re just trying to antagonize him!”

Sam Three had reached for a matching mug, this one with a kitten on it, but at Sam’s words they set it down again. “All right, all right,” they said, “but it is fun to antagonize him. Thanks, Mom!” They added, leaning over, muscles rippling on their back, to give her a hug and a loud kiss on the cheek.

“Hey!” Sam Two objected.

“Such good manners,” their mother said, smiling. “Be nice to your new siblings, Dear,” she added, directing the comment toward Sam Two.

“That maniac is *not* my—”

“Shh!” Sam pushed both of them toward the back door. “No more arguing! We’ve got work to do.”

“But that’s my *mother!*” Sam Two objected.

“She’s *my* mother, actually, so stop arguing over her.” She gave Sam Two an extra push.

Soon they were hurrying down the steps to the alley and turning to go back up again. On the way back up, the marble steps were wet with seawater and sand, and the elegant door was splintered and broken apart, leaving the entry open to the outside.

Sam Two paused, peaking cautiously inside, but Sam pushed past him and led them at a jog up the damp, sandy stairs to the second floor hallway.

The first door was ajar and clogged with seaweed, sand, driftwood, and silvery minnows, making a soggy pile that was beginning to stink. However, while the door itself was forced partially open by the detritus from the wave that had chased Sam up the tropical beach, the interior was now just a small closet with old coat hangers dangling with seaweed. A trim grey and white seagull, perched on the shelf above the hangers, was too busy pecking at a seashell to take notice of them.

They passed by the closet without comment and stopped at the next door, which had a brass doorknob, a keyhole, and a brass plaque that said, *Office*. “I have a master key for the whole building,” Sam Two said. “I wonder if it works here.” He reached up and pulled it out of his shirt. It was on a shoelace tied around his neck.

“Don’t bother,” Sam Three said, pushing him aside with a strongly muscled, heavily tattooed arm. Standing a few inches from the door, they studied it through squinted eyes, then leaned back and, *smack!* smashed their forehead into the door.

Sam Two stumbled backwards, a shocked expression on his face, and Sam One rolled her eyes and muttered, “Really?”

A second or two passed, and then the door split down the middle with a sharp *crack*. Sam Three smiled and punched both sides of the split in rapid succession, *ba-bam*. Large pieces of door clattered inward.

All three of them peered into the gloom. It looked like a very ordinary room, set up with a desk for the sage and several chairs for his visitors. “Nothing of interest,” Sam Three said in disgust. “Just an office. Let’s try the next door.”

“We could go through his desk,” Sam Two said. “There might be a clue in his papers.”

“I don’t read unless absolutely necessary,” Sam Three said. “Too boring, and the really important things usually aren’t written down.”

“Really?” Sam Two looked shocked. “Like *what* things?”

“The Big Secrets.” They ground a fist into their palm. “Better to beat them out of someone than to go through dusty old files.”

“I can’t believe you’re my double,” Sam said, “but on the subject of dusty old files, did you notice there aren’t any? Which is odd for an office, don’t you think?” She had gone in and pulled the desk drawers open. “It’s probably a front, like the closet.” She thought for a moment, then strode back toward the door. “Come back to the hallway,” she said. “Outside, both of you. Uh, and we need to put that door back together. Can you do that, or do you only destroy things?”

Sam Three scowled. “It’s dumb, but if you insist.” Crossing their arms in front of them, they pulsed with energy—Sam felt a prickling and her hair lifted—as they rewound time. Not everywhere, just where the door had stood. The broken pieces leapt back up and returned to how they had been. It was like watching a video running in reverse. “Satisfied?” Sam Three demanded.

“You ought do that to my mug,” Sam Two said.

“If you’d concentrate more on developing your delta skills and less on reading encyclopedias, you’d be able to fix your own mug,” Sam Three snapped.

“Stay focused,” Sam said.

“Uh, right.” Sam Two stepped up to the repaired door, inserted his skeleton key, and swung the door open.

“Satisfied?” Sam Three demanded. It was still a boring office with an oak desk and two empty armchairs.

Sam sighed. She was still waiting in the hallway.

Her doubles came back out and swung the door closed. “Okay,” Sam Two said. “Are you going to tell us how you turned door number one into a portal to another world?”

“I think you’re trying too hard, each in your own way. Stand back, please.” She approached the door casually, trying not to overthink it. Reaching out while allowing a little tingle of power to run down her arm, she gripped the knob and turned it as if she had every reason to expect it to open freely, even though Sam Two had just relocked it.

The door swung gently open onto a dark space.

Soft, high notes tinkled out.

Someone was playing a classical melody on a piano.

Deeper notes filled in, strong chords swelling to join the melody. And then they stopped and a slightly puzzled voice called, “Hello? Is someone there?”

Sam entered, followed closely by Three and more hesitantly by Two. Pushing forward out of a dark and dusty storage area behind a partition, they soon found themselves walking on a rich oriental carpet of immense size with more than a dozen elegant pianos on it. Fluted marble pillars held up massive ceiling beams dividing that section of a vast interior space from others beyond. Every section was filled with fine pianos in rich browns, ebony blacks, or shiny gold or silver finishes. Tastefully placed

spotlights splashed over the rich finishes of the pianos, giving the whole scene a strange theatrical quality.

The place appeared to be a very, very, *very* large piano store.

“Ahem. Welcome! It's not every day we get customers entering through a fire door. In fact, it's always supposed to be locked. Are you, ah, triplets?” He added as they came out of the shadows and he got a clear look at them.

“Sort of,” Sam said. “Nice pianos.”

The man rose from a piano bench and peered at them, puzzled. Taking off his pale blue glasses, he polished them with a white handkerchief. “Are you girls, ah, boys, ah, whatever, uh, shopping for a piano?”

“May I?” Sam Three asked, approaching a gold colored grand piano.

“Not that one, please,” the man hastened to say. “I don't think it's in tune. How about this ebony one? The Seattle Symphony selected this model when they upgraded last year. Lovely tone. Oh my.”

Sam Three had slid onto the bench and started playing a highly complex and unusual piece. Extremely high chirping notes alternated with the bang of bold, deep, but oddly dissonant chords.

The man's eyebrows rose. “An accomplished pianist, I see, but a rather strange choice. John Cage's Music of Changes, I believe?”

Sam Three stopped playing and stood as abruptly as they'd started. “That's right. Now, are you going to tell us what we want to know, or do I need to drop this piano on you?” At these words, the elegant instrument rose a few inches above the carpet and hovered.

“Oh dear,” the man said, backing nervously away. “I'm sure that won't be necessary.”

The piano thudded to the carpet with a loud aftershock of thrumming strings.

“Careful, please!” The man exclaimed. “That's a concert grand!”

“Have you been dropping pianos on my friends?” Sam Three demanded.

“Gracious no. I just sell them. Although we *have* had a string of robberies lately. Perhaps they are the work of your, ah, perpetrator?”

“Your glasses,” Sam Three snapped, holding her hand out.

“You want...?”

“Your glasses, yes!”

“Very well, but do be...Careful!”

They had jerked them from his hand and held them up so that they could peer through one of the lenses toward a ceiling spotlight. “Where did you get these?” they demanded.

“Oh, ah, my father's, actually. Been in the family for a long time. I think he got them from his uncle. Soothing light. I don't wear them for correction, but I *would* like them back if you don't mind?”

Sam Three frowned. “Authentic Guardian gear. They help you see gravitational waves if you know what you’re looking for.”

“Ah, young, um, person,” the old man said as he took the glasses back and cleaned them with a very white handkerchief, “your comments are very fanciful, but I’m afraid no one can see a gravitational—”

“He’s an idiot,” Sam Three snapped. “No clues here. He must’ve inherited the glasses from a delta worker of the distant past. Let’s go.”

“If this is how you normally handle your investigations,” Sam said, “it’s no wonder you don’t have any clues.”

“What’s the matter with how I handle things?” Sam Three demanded, looking ready to exchange punches over the matter.

“Well, for one thing, your approach is kind of hasty, don’t you think?” Sam pointed out.

“When the answer’s obvious, why waste time?” Sam Three snapped.

“Obviously he isn’t—”

“Maybe not,” Sam cut in, “but don’t you think it’s odd that the sage made a door into this store?”

Sam Three scowled. “Maybe he plays music.”

“Or maybe it’s really unusual to have such a big piano store. What world is this?”

“The third or fourth in Series 11, I’d guess. Why?”

“Wait, how many worlds are there?” Sam Two interjected.

“It depends on how you unfold them. Do you know about unfolding?”

“Let’s not get distracted,” Sam One said. “The point is, this store *is* the clue. Pianos must be important somehow. But how...?” She glanced around at the dozens of pianos receding through arched doorways between rooms—some of the pianos ebony black, others silver or gold, all shining impressively against the rich, dark carpets and subtle lighting surrounding them.

“I’m sorry to interrupt,” the man said, “but if you’re not actually shopping for a piano, you might want to be moving along.”

“Are you throwing us out?” Sam Three demanded.

“Oh no, certainly not, and I enjoyed your playing. However, I imagine someone at the front desk has already called the police. I’m sorry to say that the new management is turning out to be rather unfriendly, but...” he shrugged.

“We’re not going to be any trouble,” Sam said. “We’re just looking for someone. A sage. Bearded. Name of Slowten. Do you know him?”

“Can’t say I do,” the man said, looking nervous.

“I like the silver ones,” Sam Two said. He had wandered over to the nearest silver grand and was caressing its smooth finish. “Amazing paint job. It’s as cold as if it was really made of precious metal,” he added. “May I try it? I know chopsticks,” he added hopefully.

“The silver ones are a bit out of tune too,” the man with the blue glasses said. “If you're not actually shopping for a piano, perhaps you'd be so kind as to let these nice gentlemen from security escort you out?” He gestured toward three heavily built men dressed in black suits as they approached through the showroom.

Sam concluded at once that the men were neither ‘nice’ nor ‘gentlemen’. They looked quite obviously like what they were: Thugs for hire. She glanced at Sam Three, curious as to how she’d react. (Sam Two was already taking precautions. He’d slipped behind Sam Three.)

“Guns?” Sam Three asked them, glancing at the bulges under their coats with a practiced eye.

“Come with us,” the lead security guard said, reaching for Sam Three.

Sam Three let him grip their shoulder, then swiveled into him, grabbing his arm and leaning forward. He flew over their shoulder and crumpled on the carpet with a thump and a grunt.

The other two men rushed forward—but stopped abruptly when they saw that Sam Three was holding the first guard's gun.

“SIG-Sauer M11,” Sam Three said, examining it. “Full clip. Handgrip showing wear. Ex-military, or is it C.I.A.?”

Both men's right hands hovered over the guns tucked into their waists. “Put it down, kid,” one of them growled.

“Or what, you'll shoot me with these?” Sam Three held out their left hand, palm cupped, holding a pile of shiny bullets.

The men cursed as they examined their guns. “How'd she do that?” One of them demanded. The other cursed again.

“That’s enough,” Sam said. “Give the man back his gun, minus the bullets. We can leave them at the door when we exit. Okay, here we go! Goodbye, Sir, and sorry to disturb your showroom,” she added, addressing the salesman. “Not so many customers, though, come to think of it. Actually none, so at least we didn't cost you any business, right?” She added, still addressing the man in the blue glasses. They were backing toward the darkly shadowed corner from which they had come, but Sam paused, thinking. “Do a lot of people play piano in this world?”

The salesman shook his head. “Not so many these days, I'm afraid. The store is rather quiet these days. My family owned it for generations, but alas, in recent years we nearly went out of business and I had to sell to a conglomerate who expanded it rather dramatically, despite the lack of customers. They have peculiar ideas about pianos, to be honest. Anyway, I am sorry about the, uh, inhospitable welcome, but do come back if you decide to buy a piano! Piano Bank Unlimited. Would you like a business card?”

“Uh, no thanks,” Sam said, and then they slammed the door and found themselves standing in the same damp and sandy corridor at the top of the stairs again.

“Why did your sage make a doorway into *that* world?” Sam Three demanded, addressing Sam Two.

“He wanted to buy a piano?”

“Don't be stupid,” Sam Three snapped.

“That's sarcasm, not stupidity,” Sam Two said. “If *you* weren't so stupid, you'd—”

“That's enough,” Sam interrupted. “Let's check behind the third door. We need more clues. It still doesn't make any sense.”

“More clues?” Sam Three said. “We don't even have *one* good clue yet.”

“No, actually, we have *lots* of clues,” Sam said.

Sam Two frowned. “I'm not so sure these random events amount to even one good clue, to be honest, Sam.”

“The pianos are the clues, of course,” Sam said. “That many pianos can't be a random thing. We just don't know why. Yet.”

Chapter 17

Seasick



The third door looked as ordinary as the second, and when Sam Two tried the knob it proved to be just as firmly locked. The skeleton key came out, although Sam rolled her eyes and muttered, “Do we really have to go through this again?”

Soon Sam Two had it open and they were looking into another office, this one with several secretary desks and a bank of old oak file cabinets. It, too, was deserted, and the file cabinets had no files in them. Sam Two swung the door closed, turned the key to lock it again, and stepped back. “Right,” he said. “Probably another front.”

Sam Three stepped forward, raising a muscled arm as if preparing to smash the door, but Sam Two said, “Let *her* open it.”

Sam stepped up. “Thank you,” she said. “And thanks for my body back,” she added, realizing he felt much more herself than she had for quite some time. Then she took a deep breath and imagined that she was going to open the door onto some pleasant new world, perhaps a lovely garden or better yet a public park with a concession stand nearby. (She had to admit she was getting a little hungry.) She placed her hand gently on the knob, feeling a little tingle of power. She let her breath out slowly...and turned it. Although Sam Two had relocked the door, it opened easily.

A damp scent wafted out and they could hear the crying of sea birds in the wind. It was dark.

There was the sound of a large engine throbbing somewhere in the distance.

They could also hear the *swoosh, swoosh* of, what was it? It sounded like ocean waves. How odd.

They exchanged surprised looks, then Sam pushed the door the rest of the way open and stepped inside with her doubles close behind her. As they entered the darkened space within, the floor tipped to the right and water sloshed around their ankles. They half slipped, half fell to the side as the door they had come through slammed shut from the tipping motion.

They fetched up against a metal railing on the edge of a steep drop, with, faintly visible in the darkness below, the roiling white froth of cresting waves.

Sam was the first to get to her feet. Hunching over in the strong ocean breeze, she offered a hand to Sam Two, who got to his feet hesitantly, peering around in surprise.

“Where are we,” he asked. “Is this a boat?”

“A ship,” Sam said. “A freighter, I think. And if you look aft, no, that means to the rear. Correction, if you look forward, you can see a tall orange bridge over the water, all lit up. It’s familiar looking. I’ve seen pictures of it. Famous, in fact.”

“The Golden Gate Bridge?” Sam Two stared. “But how did we get to California, and why are we leaving San Francisco Bay on a ship that’s heading out into the Pacific Ocean at night?”

“No idea,” Sam said. “And I’m afraid it might be a long trip. There’s not much out there but sea for thousands of miles, I think.”

There was a low moan from knee level, where Sam Three was on all fours.

“What’s the matter?” Sam asked.

“I’m seasick,” they groaned.

“No you’re not. How could you be?” Sam demanded. “You just got here.”

“I get seasick. *Terribly* seasick. Ahhhhh.”

“Get up. We need to figure out why the sage made a door to this ship.”

“I’m going to vomit.” Sam Three pulled themselves to the rail and leaned over it.

“You’ll fall overboard,” Sam said, holding their arm.

“*Ahhggg...*”

“You’re not throwing up, you’re just being dramatic,” Sam Two said.

“I *will* throw up if I stay here long enough,” they said. “I don’t like oceans!”

“Isn’t the world three quarters ocean?” Sam Two asked. “You can’t just decide you don’t like the main part of it.”

“There’s even *more* ocean in some worlds where people have already melted the polar ice,” Sam Three said. “How horrible is that? Oh no, it’s getting rougher! I really can’t handle this!”

“It’s not getting rougher,” Sam said. “What happened to I’m-tougher-than-anyone?”

“Not at sea.” And then Sam Three really did throw up.

“I’ve read that severe seasickness turns the skin green, but I’ve never observed the phenomenon first hand,” Sam Two said. “Amazing that it’s noticeable even by moonlight.”

“You’re not helping,” Sam snapped. “Grab their arm. They’re going to fall overboard. Whoah! What happened?”

“Did they fall?” Sam Two joined Sam as she leaned over the rail, staring down, but there was no splash, no scream for help, no desperately waving hand in the dark waves. And then the ship surged onto new waves, leaving anyone who might have fallen far behind.

“I was holding them, then I wasn’t, but I didn’t let go. I swear!” Sam Two looked stricken. “*Did* they fall?”

“I was holding tight too, so, no. I think they popped off to some other world and left us behind.”

“Yuck.” Sam Two was scraping his sneaker on the base of the railing. “Vomit.”

“They really do get seasick,” Sam said. “Who would’ve guessed?”

“They did seemed everything-proof,” Sam Two said with a shrug. “But I guess you never know what someone’s weakness might be. Hey, what’s that?” An electric motor ground into action and deck lights came on, shining upward at a tall metal spar. It was a crane for lifting freight with a long boom coming off it at a right angle. The motor whined and thick metal cables vibrated as they snaked through pulleys to lift the boom.

All this was taking place about fifty feet aft of them. At first they could not see what the boom was lifting, but in a moment it swung to the side, reaching out over the frothing seas. Dangling from it, glittering in the moonlight, was a shiny silver piano. As they stared in surprise, the motor whined more loudly and a smaller cable jerked upward, releasing some sort of clip or shackle. The cables that had been wrapped around the piano slithered away, and the piano was suspended for an improbable moment above the water.

Then it tumbled into the long, dark, frothing waves. There was a splash, a rather large one, accompanied by the beginnings of a jangling, unpleasant chord that was quickly muffled by the sea. And then the piano was out of sight, leaving nothing but a few bubbles on the back of a long wave.

The crane swung back to the middle of the ship. From the grinding of cables and the whine of the electric motor, they guessed it was getting ready to lift another piano.

Sam Two’s eyes were very wide. “Can you explain *that*?” he asked.

“I sure can’t,” Sam said. “Let’s go take a closer look.”

Chapter 18

Dust



They had to stop and duck behind lifeboats and funnels several times as more pianos were lashed to the crane, lifted, swung out, and dropped overboard. Men in yellow slickers and heavy rubber boots were handling ropes tied to the boom. (Steading it, Sam guessed, because of the rolling of the ship in the waves.) Each time another piano came up, men did, too, so the Sams had to hide.

In all, thirty pianos were dumped, and then the freighter turned around and headed back toward the distant glow of the Golden Gate Bridge. “I guess the pianos are the clues after all,” Sam Two whispered. “But clues to what?”

They hid under a white painted lifeboat that was mounted on brackets and waited to make sure all was quiet. They were glad they’d waited when a man came on deck again to lash the boom down. After he’d gone inside and banged the metal door shut, they crept past the cabin door and toward where the pianos had come from.

The moon had gone behind clouds, but now it emerged again and the sea brightened. They could make out the white crests of waves receding into the dark distance. The ship’s deck shone dully with accumulated sea spray, but the seas were longer now and the ride was smoother. In the middle of the wide metal deck there was a waist high metal wall with a splintery old wooden rim. They hurried to it and leaned over, peered down into the darkness. “It’s the ship’s cargo hold,” Sam said.

As the ship swayed gently in the waves, the moonlight glinted off of silver and gold down in the hold. “Are there more pianos?” Sam Two asked.

Sam shrugged. “Only one way to find out. Down we go.” She worked her way along the rail to where a ladder led into the dimness, swung herself over, and began to climb down.

“Wait, don’t leave me up here!” Sam Two complained, and then he inched himself over the rail and onto the ladder. “It’s slippery,” he said, “and it’s swaying.”

“Of course it’s swaying,” Sam said from down in the dimness. “We’re on a ship.”

By the time Sam Two reached the floor of the hold and disentangled himself from the metal ladder, Sam was already out in the middle, kneeling down to feel the deck. “It feels like sand,” she said, “very fine sand, or maybe metal dust?” She held her hands up

in a patch of moonlight, and her eyebrows rose in surprise. “Look! I’m glowing! I think it’s silver and gold dust!”

Sam Two came over, lurching as the ship rolled. “Are you sure this is safe?”

“Of course not,” Sam replied, “but look.” She held her hands in front of his face.

“What in the, uh, worlds?” Sam Two leaned down and felt the deck of the cargo hold. When he brought his hands up into the moonlight, they were glowing with precious metals too. “Are you telling me those were *real* gold and silver pianos?” He asked. “I mean, not painted gold, but *made* of?”

Sam One nodded. “And I think some of the gold and silver comes off when they hoist them up with those steel cables,” she added.

“Wow.” He looked at his hands again. “Can I keep it?”

“A good question,” Sam One said, frowning in thought. “Precious metals are, well, precious. Valuable. Expensive. Who in *any* world would want to dump gold and silver overboard?”

“Not just overboard,” Sam Two said. “Overboard in a place where tectonic plates meet.”

“Huh?” She stared at him, not comprehending.

“The coast of California. Don’t you know about the geology here?”

“For sake of argument, let’s say I don’t.”

“It shelves off quickly. We were far enough out to be near...” He squinted and scanned the sea behind the ship. “Those rocky islands out there. The Farallones, they’re called, at least in my world.”

Sam shrugged. “I might’ve heard the name, but so what?”

“It’s deep water and the floor of the ocean is full of cracks because of earthquakes. There’s strong currents too.”

“Is this a school lesson you’re reciting?” Sam complained. “Because if that’s the only point, then—”

“Shut up and listen! Goddess, I get sick of people complaining about nerds. Who do you think built the Golden Gate Bridge? And the *point* is, *it’s a great place to dump things you don’t want found.*”

“Huh. As opposed to, say, off New York or Boston or any other big seaport?”

“Exactly! I happen to have done a paper in sixth grade history class about the dumping of radioactive waste in barrels out here during the 1940s and ‘50s. Thousands of steel barrels were loaded up on old freighters. I bet this is one of them that was mothballed. Someone must’ve put it back into use. Anyway, the drums were dumped overboard. They made note of the dump sites, but when they began to worry about the drums because steel rusts and radioactive material could leak—”

“The next point?” Sam interrupted.

“They couldn’t find them. The barrels migrated along the seabed until they fell into cracks. Things dumped out here disappear. Oh, and I got an A plus on the—”

“Shut up. I have to think.”

Sam Two gave her a doubtful look. “Maybe you should ask *me* to help with the thinking,” he suggested.

“All right. What do you think?”

“I think dumping radioactive waste makes sense. I mean the motivation for it. Not the method. That didn’t work out.”

“And?” Sam prompted.

“*But*, not and.”

“Oh my God! All right, *but*...?”

“But dumping very, very valuable pia— Wait, I wonder how valuable a gold piano is?” Sam Two asked.

“I don’t—”

“No, of course you don’t. Allow me...” Sam Two closed his eyes and muttered to himself. “The typical piano weights about 800 pounds but its case is made of wood. Hardwoods weigh about 45 pounds per cubic foot. Of course the sounding board on a piano is made of a big piece of cast steel, and steel weighs about 600 pounds per cubic foot. But gold is much denser. I’m going to guess it weighs twice as much as steel. So, if half a typical piano’s weight is in the steel, double that. And gold is about twenty-five to thirty times as heavy as wood, so multiply the other half of the piano’s weight by, say, 27. That’s 400×2 , plus 400×27 , right?”

“Uh, sure.”

“About 11,600 pounds. And gold is worth, what’s it worth in your world?” Sam Two asked.

Sam shrugged. “I don’t buy much gold, actually. Do you?”

“I follow gold futures in my model investment portfolio, don’t you? No. Of course not. Well, it’s currently worth about \$1,300 per ounce. Since there’s 16 ounces in a pound, that means the value in dollars of a gold piano would be approximately, uh, 185,600 ounces of gold times \$1,300 per ounce, or, or... Goddess! Each of those pianos they dumped was worth about \$241 million dollars!!!”

“Less for the silver ones,” Sam pointed out.

“Yes. I’d estimate their value to be just a couple million dollars. I mean, who needs a couple million dollars, right?” Sam Two gave a sort of hysterical laugh.

“How many pianos did they dump?” Sam asked.

“Thirty. The gold ones came first and there were eighteen of them, I think. Which is more than two hundred thousand pounds of gold. Whew.”

“I wonder how much gold there is?” Sam asked. “I mean, in the entire world? Assuming the number is roughly parallel from world to world, of course,” Sam said.

“The gold reserve in my world is approximately, uh, something like 360 million pounds, as best I can recall. Ask me about the independent study in which I wrote a paper about that.”

“No thanks. So, um, we just saw about a tenth of a percent of this world’s gold tossed into the sea?”

“And if they do this every night,” Sam Two said. “That’s one percent of the world’s gold every couple weeks. You could make a real dent in the amount of gold in a few months. Enough to bump the price up.”

“Yes, but *why?*” Sam asked. “Impressive math and all, but it makes zero sense. Any ideas?”

“I haven’t a clue,” Sam Two complained.

“No, actually, we have a lot of clues. They’re piling up. They just don’t make sense yet,” Sam said. “But at some point they will. Let’s go check behind the next door.”

Sam lead the way back up the ladder and along the windswept, spray-covered deck to the metal door on the rear of the cabin. “This isn’t the door we came through,” she said, “but it’s the only one around. Any ideas?”

“Oh great!” Sam Two complained. “You’ve gone and gotten us stuck here!”

“Shh. Let me think.”

“Hey! Stowaways! Get them!” A gruff voice shouted, and then someone flipped on a powerful spotlight and swung it in their direction.

Sam grabbed the metal door latch with one hand and Sam Two’s wrist with the other. “Visualize the hallway as hard as you can!” she cried, at the same time pushing energy into both of their tattoos, *all* their tattoos, head to toe. Sam Two gasped and nearly fell down, but Sam kept an iron grip on him.

Both of them glowed fiercely from the thousands of complex lines of their tattoos, and then the metal door suddenly popped into an oak paneled door like the one they had come through. It looked very out of place there on that grey-painted metal cabin in the moonlight, with salt spray blowing across it.

They wrenched it open and tumbled through, and Sam turned and slammed it shut behind them.

Something heavy banged against it and a gruff man’s voice shouted, “Open up! You can’t hide in there!”

And then the pounding stopped.

“I think we’re safe,” Sam Two said, sounding very relieved.

“I very much doubt it,” Sam snapped.

“But I’m tired and my clothes are damp. I’d like to go home.”

Sam glanced at him. “Zip it,” she said as she headed for the next door.

“*Zip* it? What’s *that* supposed to mean? Are you telling me to be *quiet*? Because I don’t think that’s very polite. And who made you boss, anyway?”

“Zip your fly. It’s halfway down.”

“Oh.”

Chapter 19

Door Three



They were still heading down the second floor hallway when someone knocked loudly on the entry door at the base of the stairs. The sound echoed up to them.

“Who do you think it is?” Sam Two asked, sounding nervous. “More enemies?”

“Someone who wants to be let in,” Sam said with a shrug. “Maybe a customer looking for the sage. If it was someone who wanted to kill us I don’t think they’d knock, they’d just kick the door in—like that,” she added as a crash was followed by loud splintering sounds.

Sam Two turned and tried to open the office door they had just come through, but it was locked. “What are we going to do?” He cried.

“Panic, apparently,” Sam said.

“I must’ve lost my skeleton key when I went down that ladder!” he cried as he frantically searched for the shoelace. “Why aren’t *you* panicking?” he added, puzzled, when he realized that Sam was just standing calmly in the hallway, waiting to see who would come up the stairs.

“Because *they* isn’t going to hurt you,” Sam said. “Although I might.”

“Oh!”

It was Sam Three bounding up the stairs. They arrived on the landing with a spiral notebook and pen in hand. “I’ve got something to show you,” they announced.

“Where did you disappear to?” Sam Two demanded.

“Town halls in a dozen different worlds, actually. I was tracking down the ownership of this building. And guess who owns it in most of those worlds?”

“*I* own *this* building,” Sam Two said.

“But I bet most of them are owned by guardians,” Sam said. “Right?”

“No, actually,” Sam Three said. “The guardians *used* to own these buildings, but about a dozen years ago, a mining company started buying them out. Now they rent, or they’re employees of the mining company, depending on the world. Some of the guardians own shares in the company though, and so do some of the Slowten doubles. They must be the ones behind the conspiracy to do, uh, something using the buildings at delta nexus points. And pianos, I guess.”

“What’s the company called?” Sam Two asked.

“S.G.P. Mining,” Sam Three said, consulting her notebook.

“Which stands for something, I imagine,” Sam said. “But what? Wait, that’s easy. I bet it stands for Silver, Gold, and, uh, Platinum, right?”

“Exactly,” Sam Three said, eyeing Sam. “How did you know?”

Sam lifted her foot and displayed a dusty sneaker. It glowed dully. “Covered in silver and gold,” she said. “And I guess platinum, which probably looks like silver.”

Sam Two nodded. “That’s right, but platinum is heavier and rarer than silver. Do either of you know what all three metals have in common?” He paused expectantly.

Sam grimaced, “Don’t tell me you’ve done special projects on them.”

“As a matter of fact, yes. For my astrophysics independent study last Spring Break.”

“Who does academic work on their break?” Sam shook her head. “I mean, I read a dozen books each break, but not for credit.”

“Sounds like you’re a serious nerd too, you just don’t like to admit it,” Sam Two said. “Anyway, the really interesting thing about all the precious metals is that none formed here on earth,” Sam Two continued. “It’s not hot enough even deep in the earth’s core to make a metal that dense.”

“That’s enough, Mr. Librarian,” Sam Three snapped. “Next time we want to know what an encyclopedia has to say, we’ll be sure to drop a set on you. Now, how *did* you guess what S.G.P. Stands for?” they demanded, turning their attention to Sam. “Did you visit one of their mines?”

“Sam frowned. “No, we didn’t go to any mines. We, except for those of us who can’t hack a little seasickness, found all the precious metals anyone could ever want right on that ship.”

“Huh! It must’ve been delivering ores from some mine. Did you find out where it was coming from?”

“San Francisco, but it wasn’t delivering. It was dumping pianos overboard,” Sam said.

“Pianos?” Sam Three looked confused.

“Solid gold and silver ones,” Sam Two added, “or maybe platinum. Unless you’re so too-cool-for-school that you don’t want to know?”

“No, actually, that’s an interesting fact, nerd-boy,” Sam Three said, giving him a pat on the top of the head that made him duck and look furious. “Precious metals are good motives for all sorts of crimes,” they continued. “But only if you’re taking them, not dumping them. That part doesn’t make sense.”

“It’ll make sense once we know how to look at it,” Sam Two said. “Like, say you wanted to drive the price of something up, then you might want to get rid of some of it. Supply and demand. To make it more valuable, right?”

Sam Three shook their head. “Yes, but precious metals are valuable already. Like you said, they’re not making more of them. They weren’t even made on earth.”

Sam was looking thoughtful. "If it's not hot enough in the earth's core to make silver and gold, then how *did* they get here? I think I missed that lecture in science."

"Everybody did," Sam Two said. "It's a new finding. There was a fascinating study that came out recently, didn't you read about it? Everybody who follows astrophysics is talking about it."

"Uh, how many people would that be?" Sam quipped. "A dozen?"

"All right, spill it," Sam Three said. Where *does* gold come from?"

"It turns out," Sam Two said, "that precious metals come from the same place gravitational waves come from."

"Okay," Sam said. "But where is that? Outer space somewhere?"

"Exploding stars."

"Really! Huh. Do stars explode very often?" Sam asked.

"Actually, no one knows if stars are exploding now. They might be but they're thousands of light years away, so we only see the ones that exploded a long time ago. The gravitational waves from those explosions are reaching us now, along with some of the stuff that gets spewed out when a star explodes."

"Don't tell me," Sam Three said. "Platinum, silver and gold!"

"Exactly," Sam Two said. "And now we have more clues. We just need to figure out what they mean. One. Someone's gathering precious metals and turning them into pianos. Two, they're tossing some of those pianos into ocean trenches. Three, they're trying to kill us because we can go between worlds and presumably discover their plot to, uh, do *what* exactly? I still don't see it."

"Door Three," Sam said.

"Huh?"

"Huh?"

The other two were staring at her.

"What's behind door number three," Sam repeated. "It's from some old game show on TV."

They both looked puzzled.

"What a happy thought. Other worlds might not have game shows! The point is it still doesn't add up and if we stay in any one place too long, someone's bound to try to kill us, so let's look behind the sage's next door. He was obviously researching the same thing we are." She strode purposefully down the corridor to the next closed door. "And please don't kick it," she said. "Or try your key on it. Oh, right, you lost it. Just as well. Okay, stay back..."

Chapter 20

The Trapdoor



“New research, published in the *Physical Review Letters* by a team of astrophysicists...suggests an unseen “mirror world” dark sector of new particles that are all copies of known particles, that exists alongside ours and interacts with our world only via gravity.”

- Have Scientists Found a Mirror World?

James Carter, *Forbes*

Sam Two exclaimed, “Wait, I found it! It was in my pocket instead of around my neck.” He was holding up the key.

“Oh, all right. But hurry,” Sam said, stepping aside to let him unlock the door.

“It might be a real office this time,” Sam Two said as he swung the door open. “Or not.”

The others peered past him, disappointed. It was an empty room. It was the same dimensions as the next door office, but furnished only with an old, dusty oriental carpet in the middle of an old, dusty wood floor. The two windows (one straight ahead, one on the wall to the right) were without curtains, unless old spider webs counted.

“You better reopen it,” Sam Two said, glancing at Sam.

They stepped back as Sam swung the door closed, took a deep, relaxing breath, closed her eyes, raised her hands, and placed them gently on the door.

“We don’t have all day,” Sam Three complained.

“Shut up,” Sam Two said.

Sam ignored them and tried to visualize whatever was hidden behind that door. Another beach, perhaps. Or a back door into the headquarters of some massive conspiracy. Would it be a giant space station circling all known variations or alternatives of the earth? She opened the door again, and opened her eyes.

“Sorry,” she said. “Noth... Wait a minute.” She hurried in and stood in the middle of the room, frowning. “Notice anything off about this?”

The others came in, curious. “No,” Sam Two said. “What is it?”

“Hmm,” Sam Three said. “Wasn’t the rug turned the other way before?”

“Yes. Get off it, please,” Sam said.

“Huh?” Sam Two asked.

“Get off the rug,” Sam repeated. Then she began to roll it up. Beneath it was a trapdoor in the floor. She stood. “This is it,” she said.

“It?” Sam Two repeated. “Could you please be a little more specific?”

“Someone’s coming,” Sam Three said. She’d been at a window, studying the street. “Four men in dark suits and blue tinted glasses. We should hurry and check the rest of the building before they get here. How about I take the trapdoor and you two check the remaining rooms.”

“No,” Sam said. “Everyone in here.” She wrenched the trapdoor open (oddly, it had a mirror on its underside). In the opening, there was nothing but a steep old wooden ladder descending into darkness. “Let’s go!” she hissed.

Sam Two glanced anxiously at both of them. “Maybe we should hide at the end of the hall instead?” he offered. “This looks unpleasant.”

Sam Three had been standing still, lost in thought, but now they leapt into action, taking a fistful of Sam Two’s collar in one hand and pushing him at the opening in the floor. “Get down there or I’ll throw you in,” they snapped.

Sam Two half stumbled into the opening, barely managing to grab the top of the ladder on his way down. “All right, all right!” he complained.

“You next,” Sam Three said. “I’ll conceal the trapdoor.”

“Are you sure?” Sam asked.

“Yes. Go.”

Sam scrambled down the ladder and Sam Three threw the trapdoor closed with a thump, so that they were climbing in darkness. “Hey!” Sam Two complained. “I can’t see where I’m going!”

Sam pushed some energy into their tattoos and they lit up warmly, emitting a golden glow that was reflected in the mirror on the underside of the trapdoor.

“Ow! Oh. That’s helpful, I guess,” Sam Two said.

Beneath them, they could see the ladder descending downward until it reached darkness again. What they couldn’t see was Sam Three. “Where’s the freak?” Sam Two asked.

“Stayed behind to cover our exit,” Sam said. “I hope they’re not trying to fight them,” she added when something went *thud* in the distance and the ladder shook.

“I hope they *are*,” Sam Two said. “I’m at the bottom now,” he added. “It’s rock. Where are we?” And, as Sam landed beside him, he continued, “This isn’t the basement of the bookshop.”

“It isn’t?” Sam asked.

“No, because it doesn’t have one.”

“Hmm. And we bypassed the first floor. Which means that trapdoor is definitely a portal to *somewhere*, but I don’t know where. Funny it features a mirror. Might do something. Could it be that simple?”

“Could what be that simple?”

“You must’ve read about the new research on a mirror world,” Sam said. “Wait, that was by scientists from my world. I’m not sure if it’s been discovered in yours yet. The idea is that my, well, I suppose every, world has a hidden mirror version of itself. I don’t know the math, but Slowten told me it’s the only way to explain the weight of all the particles or something like that.”

“Wait, are you telling me you know something about astrophysics that I don’t?” Sam Two was looking at Sam with newfound respect. “Because, no, I’ve never heard of mirror worlds, but I’m going to read about them when we get back. Speaking of which, can we go back up the ladder now? There’s nothing down here but darkness. No clues.”

“Not so fast.” Sam peered into the gloom. “We seem to be in a tunnel. Let’s see where it goes.” And then she was hurrying off into the darkness with only the glow of her tattoos to guide her.

Sam Two sighed and followed.

In the dim light, the dusty floor stretched on ahead with rough stone walls on either side and wooden beams above, held up by a series of thick wooden posts lining the walls. Someone had done quite a lot of work to construct a long, curving tunnel that went, well, Sam had no idea where it went.

They came to a corner. As she approached it, Sam paused, holding a hand out to stop Sam Two beside her. “Hear that?” she whispered.

“What? Oh!” Sam Two exclaimed. A low moaning sound was coming from around the corner. “What is it?!” Sam Two whispered, grasping Sam’s arm tightly.

“Not what, *who*. Let go of me.” Sam freed herself and hurried around the corner, leaving Sam Two waiting nervously behind.

After a few moments, Sam Two peaked nervously around the corner, then hurried forward. “What happened?” he exclaimed.

There, lying in the dust at an awkward angle on their back, was Sam Three, moaning.

“Help me revive them,” Sam said. “Here, place your hands on that arm. I’ll get this leg.”

“Why?” Sam Two asked, staring down.

“Broken bones. They’re in bad shape, in and out of consciousness, but they’ve been trying to explain which equations to use.”

“Equations?” Sam Two was still standing there, staring.

“Our delta powers!” Sam exclaimed. “We can heal them if we hurry, but there’s internal bleeding so we don’t have much time.”

“Oh. Uh, then let’s start with the bleeding.” Sam Two knelt down and touched Sam Three’s abdomen.

“Aaaaaaaaaa.” The loud moan made it obvious that he’d found more injuries. “How do we fix them?” Sam Two asked.

Sam placed her hands gently on one side of Sam Three’s abdomen and Sam Two followed her lead on the other side. “Now,” Sam said, “I need you to relax and let me access your tattoos. I think I know which ones to use.”

“Uh, okay, and I don’t care if it hurts. Well, as long as it doesn’t hurt a *lot*.”

“Sure you do, but thanks,” Sam said. She closed her eyes and focused on bringing the strange tingling energy of her new power to a set of tattoos on their stomachs that, Sam Three had said, were associated with healing and repairing bodies (an elegant set of equations spiraled around each of their bellybuttons).

A jolt of powerful energy brought painful cramps to her abdomen, then rose up and shot down her arms and out her fingertips. She could tell that Sam Two was feeling the energy flow when he groaned. “Don’t stop!” she hissed.

A long moment later, she raised her hands and leaned back on her heels. “All right, that’s good. Let’s try the broken arm and leg now.”

“No, you’ve done enough. You’re not used to channeling that much energy,” Sam Three said. “Just find me something to splint the broken bones.”

“You’re talking again,” Sam Two exclaimed. “Are you better?”

Sam Three (who was still lying on their back) explored their stomach with one hand. “Getting there.”

“Good,” Sam said. “But stay still. We’ll do the bones next. Sam Two, put your hands on their arm. I’ll do the leg. It looks bad.” And then they were in an even deeper trance, with pulses of painful energy burning through their hands and into Sam Three’s broken bones.

It ended when Sam Two fell backward with a gasp and lay next to Sam Three, moaning.

Beads of sweat trickled down Sam’s forehead. It had grown dark in the tunnel and she was not sure if either of her doubles were conscious, but she could hear both of them breathing. She tried to push energy into her tattoos again to bring some light, but nothing happened. She sat back and sighed.

A ball of bright light appeared with a *pop*, hovering over them, up against the rough ceiling of the tunnel. She blinked and as her eyes adjusted to the brightness, her eyebrows went up. It was the moon. Correction, a miniature model of the moon. And it was floating above them, casting cool white moonlight.

“I borrowed it from a science museum’s display a few worlds over,” Sam Three said, sitting up and testing her limbs.

“A proper scientific model wouldn’t glow,” Sam Two objected, still on his back, staring up. “Real moons only show reflected light.”

“Save us!” Sam Three muttered.

“Never mind about that,” Sam said, getting to her feet. “What happened to those men? Are they still on our trail?”

“I don’t think those *particular* guardians are going to be a problem,” Sam Three said with a grin. “Uh, you were right about the rest of the doors, by the way. Definitely decoys. Thanks.”

“You’re actually thanking someone?” Sam stared at them. “That’s a breakthrough,” she added, smiling. “Thanks for covering our exit.”

“Decoys?” Sam Two repeated.

“Yes,” Sam Three said. “She’d noticed that the room with the trapdoor was at the corner of your building. *Two* of the walls had windows, right? But the corridor appeared to continue to more doors which means more rooms, not a corner. I bet the other doors are illusions. Maybe they boobytrap you or whisk you away to a dead world. That’s what you realized, right?” They glanced at Sam, who nodded. “So, after I’d switched out the floorboards for some from a neighboring building to get rid of the cutout for the trapdoor, I hurried out to the corridor and, making myself invisible, slipped into that closet at the top of the stairs.”

“The one with the seagull?” Sam Two asked, startled.

“It ignored me. I was invisible. Aren’t you listening?”

“Uh, really? You can do that? Oh!” As he talked, Sam Three faded from sight, then flickered back.

“Then,” Sam Three continued, “I waited there for the so-called guardians to come upstairs. They came at a jog, obviously in a hurry to catch up with us. And they chased me down the corridor.”

“I thought you were hiding in the—”

“Closet, of course,” Sam Three interrupted. “But I used my strongest illusion. Actually, it was an illusion of all three of us. We turned and ran down the corridor and then we opened the last door, rushed through, and slammed it. It was a pretty convincing illusion, I must say.”

“What did the men do?”

“Four of them ran after the illusion and smashed the door open while one waited at the top of the stairs. I suppose he was guarding their rear. When the explosion happened, he ducked into the closet for cover and banged right into me. You should’ve heard the gull! He was furious about all the commotion.”

“Explosion?” Sam Two stared. “In my bookshop?”

Sam Three shook their head. “The sage boobytrapped the end of the corridor. Good thing we found the trapdoor and didn’t go on.”

“But what about my bookstore? And my *parents!*”

“I think he created a place in the area between worlds. Those rooms aren’t in your bookshop, are they?”

“Uh, no. My bedroom’s back there, and it’s much smaller.”

“Then I wouldn’t worry.”

“How did you get injured?” Sam asked.

“Oh, that. It happened in the explosion. Except the broken arm. The guardian gave it to me. We had quite the little fight in the rubble of the exploded building. He’s still there, unconscious and maybe dead. I dropped a whole collection of barbells on him from the nearest gym.”

“And how did *you* end up in *here*?” Sam asked.

“Our connection is much stronger since you copied my tattoos,” Sam Three said. “If you try, I bet you’ll be able to sense *me* wherever I am, too. Then it’s just a simple matter of transporting to the source of the signal. Good thing I didn’t lose consciousness from my injuries until after I’d transported myself here.” They frowned.

“This isn’t going very well,” Sam Two complained. “You nearly died and you blew up a version of my building. Can we please avoid those sorts of problems in the future?”

“Some adventures go better than others,” Sam Three said. “But we accomplished our goal, right? I’m sure this will take us to another clue.”

“Let’s see,” Sam said.

And then the improbable trio was on their feet and heading down the tunnel again. It seemed to have a great many more corners leading to more corridors which lead to more corners, so that they were beginning to feel disoriented and were quite tired of walking by the time Sam, who was in the lead, stopped and held up her hand. “Uh, we’ve been here before,” she said. “Maybe twice before. Look.”

There in the sandy dirt were body-sized imprints made from people lying down, along with a smaller mark where someone knelt by them. And, running on ahead, there seemed to be multiple sets of faint footprints.

“Goddess!” Sam Two swore. “We’re going in circles!”

“It must be another illusion spell,” Sam Three said.

“At least we weren’t exploded,” Sam commented.

“I don’t know which is worse, a bomb or an endless loop,” Sam Three said. “And this one is really well done. Seamless. We could be trapped here forever.”

Sam Two collapsed in the dust, nearly on top of the marks from where he’d been laying down before. “I give up,” he moaned. “I just want to go home!”

“I know what you mean,” Sam admitted. “A jam sandwich *is* beginning to sound good.”

Chapter 21

Illusions



Sam Two sat while the other Sams stood and thought. What each of them thought about was probably quite different, even though they were, on the outside, so similar.

Sam Two's thoughts were easy enough to follow because he spoke them out loud. "This is so stupid!" he muttered. "I wish I'd never met either of you. I could be home at the kitchen table, eating all the sandwiches I want and reading textbooks, but no! We had to go rushing off on some fool's errand and getting stuck forever in this dusty labyrinth, not to mention covered head to toe with ugly equations! It's just my luck to have such reckless and stupid doubles..." He continued in that vein while the other two stood thinking.

Finally, Sam turned to Sam Three and asked, "How do you do illusions?"

"You visualize something really strongly and, uh, use these equations here." She pointed to a set of complex symbols and numbers that ran up her neck and spanned her right temple before arching over her ear. "They're above the parts of the brain that figure out what's going on around us."

"Environmental cognition," Sam Two interrupted. "Parts of your cerebral cortex build your mental maps of the world from sensory inputs and prior—"

"That's what I said," Sam Three cut in. "But not in such nerdy terms. Then your illusion activates that same region in anyone who looks at your illusion-nexus."

"Which is?" Sam prompted.

"The place where you want the illusion to be. You can center it in one place, like, uh, when you stand here I could make it look like that." There was a flash of light, and then a lovely, misty lake appeared down the tunnel in front of them with a little sandy beach and green canoes pulled up on it. A pair of geese flew past, honking, but disappeared when they reached the wall. "It's just a trick of the brain. You can't really go boating."

"The illusion is centered in front of us?" Sam asked.

"Right. I cast it a few yards ahead to make it seem more realistic. A one-point illusion is less work than making it span more than one point. But if you move, the one-point illusion distorts and fades."

"What if you wanted to make an illusion that looked real from everywhere?" Sam Two asked, getting interested in spite of himself.

“A linear illusion spreads the source out in a line,” Sam Three said. “Or a curve. It’s for if you want someone to walk around it and still see it. But in a narrow tunnel like this, you’d probably just do it in a line along one wall. Like, if you want to make it look like we’re walking along the shore of a lake.” They gestured toward the right side of the tunnel and it began to shimmer. A much wider but oddly faint version of the same lake scene flickered, then faded. “Huh. That’s strange.”

“Why didn’t it work?” Sam asked.

“I don’t know. I anchored it to the wall, but it didn’t take.” They tried again. The illusion flickered and undulated, then faded away.

“Maybe there isn’t anything to anchor it to,” Sam Two said with a frown. Getting up and approaching the wall, he put a hand out and touched one of the big structural posts. “This seems pretty solid, though.”

“Maybe,” Sam Three said, their eyebrows rising, “but you can make discrete foreground objects feel solid in a really good illusion. Try touching the dirt wall between the posts.”

“It’s dirty,” Sam Two complained.

Sam Three rolled their eyes. “Like this,” they said, pressing a palm on the wall.

Ripples spread out across what should have been a solid, hard-packed wall of dirt and stone. Then their hand sank in. A moment later, they were pulling at the wall with both hands. But instead of rock, they were tugging at thin, wriggling ribbons of illusion that flexed and faded as they were pulled. Soon a gaping hole had appeared in the wall—and then the wall collapsed and faded away. They hadn’t been in a tunnel at all, they’d been walking around the outer edge of a vast cavern. Now they were looking out at an entire underground habitat, with stalactites reaching down from the ceiling and glistening pools of water here and there on a vast and undulating stone floor.

“Wow,” Sam Two said.

Chapter 22 Discoveries



They walked downward to where the cave's floor was smooth stone, worn gently into undulating curves and mounds by eons of water running over it. "Must've been an underground stream or lake," Sam Two said. "Water levels were higher in earlier geologic ___"

"Shut it," Sam Three snapped.

"Periods."

"Don't be an ass—, rude. Please," Sam said, turning to eye Sam Three.

"Sorry. Not used to having anyone on my side," they said.

"No wonder!" Sam Two said.

"You, too," Sam warned him. "Let's work together. Uh, what in the world?" They stopped at the first of many glistening pools. From a distance it had looked like water. Up close, it was oddly silver in color. Not to mention the fact that it was steaming hot.

Sam Two knelt down and was about to touch it when Sam Three jerked him back.

"I wouldn't do that," they warned. "It's *very* hot."

"Oh," Sam Two said. "Uh, thanks."

"What's that smell?" Sam asked.

"Degassing, I'd guess," Sam Two said, having stepped back from the edge. "It's silver ore. Someone's melting it. Lots of it. But the melting point of silver is, uh, something like 1,700 Fahrenheit. It's warm here, but not *that* hot. Strange."

"It might be hotter down at the bottom of the pool," Sam said. "I think the silver on the surface here is almost solid. See how slowly it's moving?"

"Let's look at the next one," Sam Three suggested.

It was a larger pool, also swirling and bubbling and giving off steamy gasses. The warmth of it struck them as they approached. The difference, however, was that this pool appeared to be full of liquid gold.

"Wow," Sam Two said. "*That* must be valuable."

"No math this time?" Sam teased.

"I can't even begin to guess how many gallons of liquid gold we're looking at. How deep do you think it is?"

Sam shrugged.

“Wrong question,” Sam Three said. “We should be asking *why*.”

“Or who,” Sam Two suggested.

“Good questions, but the answers aren’t here,” Sam said. “Let’s keep going. I think this chamber connects to another one over there.”

They wound around pools of silver, platinum and gold. As they went through the center of the cavern the air was so hot that it was hard to breathe and they had to wipe perspiration off their foreheads. Finally they came to a pair of arching steps near the far side. One went up, the other down. “I say up,” Sam said. She didn’t like caves and the tunnel had made her feel claustrophobic.

“Why not?” Sam Three said, jogging up the stone ramp.

“I’m not running,” Sam Two said.

When they got to the top and joined Sam Three, they realized that the roof of the cavern, although arching at least a hundred feet above the pool-covered floor, was nowhere near ground level. Above it there was another cavern with a ceiling perhaps fifty feet in height. Columns of stone ran from floor to ceiling, and Sam noticed that they corresponded to columns in the lower chamber. Otherwise, she guessed, the lower ceiling, which formed a floor for the upper chamber, would not have been stable.

But what truly amazed her—amazed all of them—was the trickling gold dust, silver dust and, presumably, platinum dust coming from round holes in the middle of the ceiling and sifting down onto wide piles, like huge sand dunes, except that they glittered gold and silver.

The sifting streams of metal dust hissed as they fell.

“Are we looking at some sort of mining activity?” Sam asked.

“If precious metals came out of mines pure and in powdered form, ready to be melted,” Sam Two said.

“I’ll take that as a no.”

“It’s a mine,” Sam Three said, “but not the normal kind. They must be tapping into gravitational waves and collecting the heavy metals that get swept along on them. I bet we’re deep under the nexus where the bookstores are.”

“Collecting gold from gravitational waves?” Sam Two frowned. “Then dumping it off the coast of California? I really don’t get it,” he complained.

“Let’s keep exploring,” Sam Three said, turning and leading them back down. As they reached the main, high-ceilinged chamber again, with its molten pools of precious metals, they stopped to study the scene.

“Look,” Sam said. “There’s powder trickling down into the bigger pools. The dust up above is feeding them.”

Sam nodded. “Looks like it. In through the nexus, then sifted down here to be melted and form into, uh, something or other.” Sam frowned. “Which probably happens another layer down. Shall we?”

Sam Three nodded and lead the way down. Soon they were standing at a lower level where the cavern was not so large, but still impressive because it was full of manufacturing machinery at work. It seemed to be a fully automated factory. In one direction, liquid gold was sluicing into forms and moving along a belt. At the far end of the belt, stacks of gold blocks were piling up. But in the other direction, the liquid gold was being formed into much larger pieces and used to make something big and shiny and... As they tiptoed cautiously forward around huge pieces of equipment that steamed and grumbled, they came in sight of the other end of the production line. Pianos were gliding along on a wide metal track, flashing gold and silver in the bright industrial glow of large lights on the stone ceiling.

“Goddess!” Sam Two exclaimed. “Someone’s going to all this trouble to make pianos out of precious metals and then ship them off to San Francisco to dump them in the sea!”

“Seems like it. At least some of them. There were some on display in that piano store too.”

“And my sage was investigating the entire operation, since he’d set up portals to all these places,” Sam Two said.

“Was he?” It was a deep, male voice, coming from just behind them.

Sam Three reacted first, spinning around and raising their arm to do whatever they had been going to do, except that now they were standing frozen in place. Literally. A ten foot square cube of ice encased them and they were quite immobile within in.

“That will be quite enough from *you*,” the sage said. “I’ve encountered your fury a few times already. Imagine tattooing all the delta equations on your own body! Truly over the top! Now, it *is* nice to see *you*, Samuel,” he continued, addressing Sam Two. “My mirror twin’s old client. No serious threat from your direction, at least.” He smiled, then turned toward Sam. “However, *you* are a bit more troublesome. Actually jumping between worlds. Finding portals and using them. No wonder my local team was focusing on you.”

“Your local team,” Sam repeated, frowning. “That means you’re not from either of our worlds. Where are you from?” This Slowten was dressed in an expensive looking brown suit and wore a neatly trimmed beard, which Sam suspected was in compensation for his mostly bald head. He’d lost a lot more hair than her Slowten had.

The sage raised an eyebrow. “I’m from where I’m from,” he said. “Which is really none of your business. However, I have been almost everywhere, rounding up the strongest waves and directing their dust here. In most worlds, the guardians and sages were eager to join me. I’ve made dozens of billionaires. On the other hand, a few foolish ones were not.”

“My sage?” Sam Two asked.

“Not. But my local people took care of him. Squashed underneath a very large piano, I believe.”

Sam gave Sam Two a stern look, hoping he wouldn't try to correct the record.

"Uh, right," Sam Two said. "Too bad."

"So," Sam said, eyeing the new Slowten. "All this is your work?"

The Slowten in the suit smiled. "I'm quite amazing, aren't I? Now, how shall I dispense with you two?"

Sam's eyes narrowed. "You're nothing more than a common murderer," she said, "who thinks he's clever. I'm going to—" She paused. Something was wrong. Looking down, she realized her feet had sunk into the stone floor as if wet concrete that had dried around her. She was about to counter with something vicious and possibly deadly—but Sam Two held up a hand to signal her to wait. "Let me ask a few questions before you duel, or whatever you call it," he said.

"Questions?" Sam exclaimed, startled. "Are you serious?"

"We're trying to solve a mystery," Sam Two reminded him. "And you, Sir, if you don't mind my saying, seem so confident of defeating us that surely you don't mind a brief Q&A first?"

The evil Slowten looked at Sam Two with surprise, then began to chuckle. "Why not?" he exclaimed. "I am rather proud of my work, and since it's a secret conspiracy, I don't normally get to boast about it. But since you'll be dead soon, I don't need to worry about *you* keeping secrets, do I?" He smiled cheerfully.

Sam just glared at him, but Sam Two took it as an invitation and said, "First question. Where is all this gold and silver coming from? It seems like more than could be gathered on any single world."

"Correct," the sage said. "But this facility here is a macro-nexus. We made it by tunneling into multiple worlds so as to gather the most dust possible."

"Second question," Sam Two said. "How many other sages and guardians are helping you?"

"More than a hundred," he said. "And of course they needed a leader. I just happen to be a natural leader."

"And," Sam Two continued, "when did this collaboration begin?"

"We started collaborating about ten years ago, when the waves strengthened."

"Strengthened?" Sam Two repeated. "Was this around the time that my parents disappeared?"

The evil Slowten nodded. "They were in the way. We needed control of multiple bookstores so we could take control of the gravitational waves and harvest precious metals."

"You're the one who started all this. You took my parents away!" He looked like he wanted to rush at Slowten, but Sam held him back.

"Cool it," she hissed. "I'll handle this."

“Will you, now?” Slowten chuckled. “While stuck in stone. Actually, what’s going to happen is that all three of you will be relocated into the middle of the largest, hottest smelting pool. Any final worlds?”

“I’m dying to know, no pun intended, why you’re making pianos out of gold,” Sam asked.

Slowten nodded. “A particularly clever part of my plan. It’s to control the price of gold. Supply and demand. Something shifted ten years ago and a lot more precious metals began to arrive. Waves were cresting from an especially large star explosion. At first we were pleased to find we could gather more. I used the extra wealth to start acquiring vast assets and form a secret conglomerate with the goal of gaining control over, well, anything I wanted. But then it turned into a flood. Ordinary people began finding gold. As it became more common, we were worried that our gold holdings would become less valuable.”

“And I suppose one of you happened to be in the piano business,” Sam said.

“Actually, quite a few of the guardians had piano stores in different worlds. So we thought, why not, and we set this place up. We ship pianos out using delta equations. Late at night, of course, so when they land in showrooms they don’t squash customers. Occasionally a janitor gets in the way, but any great scheme is going to have a few casualties—like you three! He grinned again.

“What about the pianos you dump overboard?” Sam Two asked.

“So many questions, but none of them about how to save your pitiful lives! Curiosity killed the cat, and it’ll kill the Sams too. However, since you ask, what happens is that sometimes the supply spikes and drives the value of our precious metals down. If I sent gold bricks to San Francisco to dump into the sea, that would attract thieves, but nobody suspects pianos. It’s an easy way to disguise a lot of gold. Well, it’s been nice chatting, but I’m expecting my fellow conspirators shortly. Let’s see.” He rolled up his sleeves. “This should be an entertaining bit of equation-work. Hmm. How to transport all three of you into the hottest pool at the same time. No, I have a better idea! I’ll do you one at a time so that the last one has to watch the first two die. Sam, I think that’ll be you.”

“Just one more question,” Sam said quickly. “Why exactly are you so afraid of my double over there with the whole-body tattoo?”

“Afraid? Nonsense! We exterminated her kind, all but her, and now I’ve got her too.”

“Are you afraid of them because they’re a great warrior?” Sam Two asked. “Were their kind the real guardians keeping people from abusing the deltas?”

“Something like that, but their Buddhist ideals and old fashioned ethics marked them for extermination. It’s a world of power and greed, children. There’s no room for high-minded ideals anymore.”

“You talk a lot, even for an evil villain,” Sam pointed out, trying a little sarcasm for effect. “Lonely at the top?”

“Hah! I can have all the company I want with a simple compulsion equation, and if I grow tired of someone I can just as easily send them away. You have no idea what this much power feels like.”

Sam exchanged a glance and a nod with Sam Two, and they both pushed pulses of energy into their tattoos, which had faded since they weren't using them. For dramatic effect—the situation seemed to call for it—Sam gave them a bright blue glow.

The sage looked very surprised. He took a few quick steps away from them. “What illusion is this!” he demanded.

“Uh, watch your step there,” Sam advised. “The rock's a bit soft.” She had, with a little extra push, made the granite under him into a deep, soft mush, and he was up to his knees in it by the time she let it return to its natural state while at the same time releasing herself from *his* stonework.

The sage looked very angry. “If it's a duel you want, so be it!” he shouted, beginning to scribble invisible equations in the air in front of him.

“Wouldn't a chalkboard be helpful?” Sam asked. A large one popped into view near the roof of the cave and began to fall. It struck him from above, interrupting his equation.

He cursed loudly as pieces of splintered chalkboard fell around him, then began to mark signs in the air again.

“You know,” Sam Two said, “his maniac crusade to get rid of us actually makes a certain amount of sense, if you think about the time needed to write an equation. *So* much quicker just to tap into a tattoo, isn't it?” And then he focused on the sage and, *pop!*, produced a hand weight, the kind with a metal bar holding two balls of heavy iron on either end. It appeared in the sage's left hand, the one he was using to write equations in the air. His hand was taped to it with athletic tape.

“You are very foolish children!” he hissed as his arm fell to his side. “Don't you realize that my people are heading here even as we duel? I've already summoned dozens of Slowtens and guardians!”

“That many?” Sam asked. “Maybe *we* need reinforcements, too.” She smiled and snapped her fingers, and there was a *crack* from the direction of the ice cube. Large chunks of ice split off and smashed on the stone floor as Sam Three stepped out. “Uh, hi,” Sam said. “Having a bit of fun here. Do you want to join in?”

Sam Three walked over to the sage and, looking down at him (since he was sunk up to his knees in the stone of the floor), said, “Did you really think you could kill me that easily? I was just watching to see how they'd do.”

He did not reply. He seemed to be in some discomfort.

“And I was thinking. Always good to think. Right?” They turned to smile at Sam. “One thing I was thinking,” they continued, “is how curious it is that the three of us are doubles, and yet...” They gestured at themselves and smiled.

“You mean how we’re so different?” Sam Two asked.

“Yes, and differences are good,” Sam Three said. “Right, Sam?”

Sam nodded. “And we certainly are as different as we’re alike.”

“So are the different Slowtens,” Sam Three said. “Yours is a good person, isn’t he?”

Sam nodded. “And he turns out to be more caring than I realized. You, however,” she added, turning to address the evil sage again, “seem to be hopelessly mean and uncaring. Quite the opposite of my Slowten. Doubles can be opposites in personality, it seems.”

“Your Slowten is an incompetent fool! I sense him now, trying to find you, but his equations are amateurish! He must be scribbling away at that stupid chalk board of his.” (This was accompanied by a superior sort of smirk, despite the sage’s uncomfortable position.)

“Since he knows we’ve disappeared through a delta,” Sam said, “that’s just what he’d do. He’s no doubt trying to rescue us.” She smiled at the thought. “Have you ever rescued anyone? Or is it always just about you?”

“Oh, it’s all about me!” the sage said. “And my work.” But as he said this, he glanced up, no doubt unintentionally—and gave away his next move.

Sam turned the three grand pianos—gaudily constructed of solid gold—into flocks of golden butterflies before they could fall from the ceiling and crush any of them. “Not nice,” she said. “See what I mean about differences? My Slowten’s equation work may be faulty, but he never tries to drop pianos on people. *And* he’s a student of French cooking. Have you ever had a really well cooked meal from a fine French restaurant? It’s better than a dozen gold pianos. How rich *are* you, by the way?”

The sage, who seemed to welcome the opportunity to stall for time by talking, smiled crookedly. “I’m worth hundreds of billions,” he said. “But money isn’t the ultimate objective. Since I’m quite confident you three will not live beyond the hour, I don’t mind letting you in on a little secret: We are planning to amass such a fortune that we can buy up controlling stakes in all major industries, and from there, launch a coordinated take-over of the major nations. Dumping some of the gold where it’ll never be found helps us control the value of our holdings. We’ll keep precious metal down here too, in case we run out—but that isn’t going to happen anytime soon.”

Sam Two laughed.

“What could possibly be funny about such lofty ambitions!” the sage snapped, looking annoyed.

“Sorry, but it’s just so predictable, isn’t it?” Sam Two continued. “The evil madman plots to take over the world. No, make that *worlds*. I mean, isn’t it just like some stupid movie plot?”

“I think,” Sam Three said, “that we’ve talked enough. It’s time to *do* something with this evil mastermind before his henchmen arrive and—Look out!” they exclaimed. A loud *pop, pop, pop* had interrupted them as three very large, vicious-looking tigers appeared. Their tails twitched eagerly as each stalked toward one of the Sams. The sage had been quietly forming another equation behind his back with his free hand.

“May I try something?” Sam Two asked.

“Go for it,” Sam said.

With a *POP!* a huge grey elephant appeared. “Get them!” Sam Two called, gesturing toward the tigers.

The elephant looked startled. It scanned the cave, ignoring the tigers. Then it turned and lumbered off into the distance.

Sam Three chuckled.

“Uh, a little help here?” Sam Two said. One of the tigers seemed about to pounce on him.

“Your turn,” Sam Three told Sam One.

“Oh, all right.” She raised one eyebrow and fixed her stare on the tiger that was stalking toward Sam Two. It shimmered oddly, then popped into a hundred miniature tigers, each no larger than a mouse.

“That’s no help!” Sam Two exclaimed. “They’ll be like piranhas!”

“I doubt it,” Sam said. “Tigers don’t hunt in packs. Just scare them off.”

“Me? How?!?”

“Uh, try roaring?” Sam suggested.

“Ow! One of them nipped my ankle!”

Sam waved her hand and the hundred small tigers divided into a thousand very small tigers.

“Don’t forget about the other two,” Sam Three pointed out.

“Oh! Uh...” Sam swung around just as a tiger leapt at her. *This is annoyingly familiar*, she thought, remembering the tea-house attack. *Maybe I should try something new*. The tiger’s leap was still in its initial phase when her equation struck it. Actually, she aimed her efforts at the chord of gravitational pull from the earth to the tiger, which in another second or two would have brought the tiger down upon her. Except that gravity let go and the tiger, weightless, kept rising. It went over her, growling in anger, and then it just kept going and going until it bumped into the roof of the cavern. There it began to bob along like a helium balloon.

“Really?” Sam Three said. “I was imagining something a little more decisive, like blowing it up.” They turned toward the remaining tiger and raised an arm to point at it.

“Wait!” Sam Two said. “Do you really have to hurt it?”

“Oh, have it your way,” Sam Three said. And then all the tigers, the one leaping at her, the one bobbing against the ceiling, and the tiny tigers fanning out across the cavern floor like colorful cockroaches, all disappeared. “I’ve sent them to the biggest zoo I know of,” Sam Three said. “Along with the elephant. They’ll be a surprise, I bet. A sensation, even. Now, what to do about the evil mastermind and his minions?”

“Send him to prison?” Sam Two suggested.

“He’d just equation himself out,” Sam Three said. “Generally, the only way to deal with sophisticated delta-workers is to kill them. Otherwise, they just keep coming back and causing trouble.”

“You nasty tattooed freak!” the sage shouted, “When I get rescued I’m going to—” But he wasn’t able to finish the thought. Sam Two had popped a piece of duct tape over his mouth.

“What if he weren’t able to do any proper equation-work?” Sam asked.

“What’s to stop him?” Sam Three said. “Memory wipe?”

“Tempting,” Sam said, “but unnecessary. He said he could sense my Slowten. They’re linked, just like we are, right?”

“Doubles always are,” Sam Three said. “Why?”

“Can we trace my Slowten through their connection?”

“You don’t need to, he already did. Your Slowten is standing at his chalkboard. All you have to do if you want him is visualize him there, then bring him here.”

“Transport him? I’ve never done that. What if something goes wrong?”

“Save me from incompetence! Here, take my hands, both of you, and we’ll do it together. You can follow my lead and learn which equations to use. Start with visualization and finding, then encapsulation and movement. Here we go.”

A flickering accompanied by a series of odd *pops* suggested that something was not going well with the transport effort. “Don’t let go of him,” Sam Three hissed. “Who’s letting him get out of focus?”

“Uh, sorry,” Sam Two said, “but all I can see is the chalk board.”

“POP!”

“That’s because that’s all we got,” Sam Three said. “He must not have been standing at it. Bad intelligence.”

“If you have to count on your enemies for information...” Sam rolled her eyes.

“Well? Do you have a better idea?” Sam Three demanded.

“Hah!” The sage, from his captivity in stone and barbell, was actually looking highly amused. Somehow he’d gotten rid of the duct tape.

“What’s amusing you?” Sam asked, eyeing him thoughtfully.

“Those equations on his board. They’re totally hopeless! No one could take over the world with equations like that! No wonder he hasn’t been any help to you.”

“No one could do *anything* very well with equations like his, could they,” Sam said, “even if they wanted to. Hang on,” she added, turning back to her doubles. “Now

that you've shown me transports, it's not so hard, is it?" *Pop*. A purple armchair appeared a few yards from the chalkboard—which, lacking the wall it was normally mounted on, was simply hovering as if it were still mounted on a wall. And in the armchair...

"Hey!" Slowten blinked and got up slowly. "How did I... Wait, is that you, Sam? Or, um, you?" He stared at Sam One and Two alternately, looking puzzled. "Are you, uh, both of you, actually, all *three* of you, all right? I've been trying to—"

"It's me," Sam said, coming over and giving him a quick hug. "I missed you, believe it or not."

"I'm sorry I wasn't more help. I just seem to be stuck on this last equation. The rest of it's just about right, I think." He frowned at the chalkboard (while the Sams exchanged a look—because of course the rest of it *wasn't* right). "Uh, where are we?" he added, looking around at the cavern.

"Look behind the board," Sam Three said. (It was in between the captured sage and their little group.)

Slowten walked up to his board, then to the edge of it. "What's holding it up. Oh my God! Is that, uh, me?"

"A double, but definitely not you," Sam said. "He wants to kill us."

"So it's true," Slowten said, shaking his head sadly. "I'm evil in other worlds?"

"Well, some of them," Sam said. "Too fond of gold, not very fond of people."

"I've never really been a people person," Slowten admitted. "Never wanted a family. Until I met you," he added. "But I've certainly never been murderous." He walked toward his double, frowning. "How *could* you? What were you *thinking*?"

"What are *you* thinking!" the sage exclaimed. "These children mean nothing! In a ___"

"I'm no expert," Slowten said, interrupting the sage, "but I suspect they'd rather not be called 'children' at their age. Perhaps young adults would be more respectful?"

"Respectful? Why would I want to be respectful! In a few more years I'll be able to buy whole countries, and so will you if you get me out of here." He struggled to free his legs without success. "If you want family, I can give you that too. I'll buy you ten! A family waiting in a mansion in every major city across your world!"

Slowten turned back toward the three Sams. "I can't believe how corrupted his mind is. What happened to him?"

"Gold," Sam Three said. "We were taught at my temple that any metals not of this world are unhealthy and corrupting. My masters were right about that, it seems."

"I don't want gold," Sam's Slowten said. "I wouldn't mind understanding a bit more about delta equations, but strictly out of intellectual curiosity," he hurried to add. "Not for personal gain."

"You can transcribe any of our tattoos you're interested in," Sam Three offered. "But first we have to clean up this mess." They gestured around the factory and then turned to study the evil sage. "I'm sorry if your softer sensibilities are offended, but I we

should get rid of him, and we'll have to eliminate the sages and guardians working with him across other worlds too."

"The chalkboard," Sam said.

"What about it?" Sam Three asked.

"It's full of dysfunctional, incorrect equations," Sam pointed out. She went up to it. "Except this one," she added, wiping away one of the lower lines (it was identical with one near her elbow). "And this part looks pretty good too." She wiped a portion of another line away.

"That's my best work!" Slowten complained. "I'd rather you erased all the rest of it!"

"And so would he." Sam smiled.

"Ow! What are you doing to my skin!" the evil sage complained. "Oh!" he added, surprised. "My feet are free. Who let me go? Was it you, my double, finally coming to your senses?"

"No, it was me," Sam said. "Are you happy?"

"Very! Now we shall have a proper duel!" He ripped the tape off his wrist and threw the barbell down. Raising his hand, he began to make rapid gestures in the air. "There! Try getting out of *that* transport equation!" he crowed. "You're all headed for the hottest pool of molten—Wait, why are you still here?"

"Light him up," Sam said, glancing at her doubles. "It's time he gets a good look at his new tattoos."

Sam Two and Three both grinned as they pushed a little energy toward the sage and, with a sizzle, brought bright blue light to him. He was covered with Slowten's equations from the chalkboard. They wound up his wrists, and down his neck into his shirt collar.

"Dysfunctional equations," Sam said with a smile. "A little gift from us to you."

"No!!!!" He clawed at his chest. "They're stinging and burning!"

"That's because you're trying to activate a delta," Sam said. "Leave them alone and they'll fade, but try to do even the simplest equation and they'll come back to life. See, that's *my* Slowten's special genius. Even though he didn't really understand the math, he intuitively got fairly close. Close enough that his equations resonate strongly whenever a delta is activated. They might cause the occasional accident, I suppose, but they'll never do what you want them to. Mostly they just cause interference. A *lot* of interference. Enough to block anything you try to do. Not to mention the pain." Sam smiled again. "Go on, master villain. Transport yourself away. *If* you can."

"I'll do just that," he hissed, "and come back with so many reinforcements that you'll never defeat all of us!"

"Or not." Sam was still smiling. Do you think I'd overlook the fact that you have evil coconspirators? I think you'll find that all those links you opened to call your minions were perfect for spreading those bad equations to everyone else. No harm done.

Just a *lot* of tattooing. You can tell them the whole story when you see them,” Sam added, waving a hand at the sage—who shimmered, then popped away. “I sent him to Times Square in some version of Manhattan, I’m not sure which one,” she added. “I don’t know what they’ll make of him, but at least he won’t be able to bother us again.”

“I like your style,” Sam Three said. “And I like your Slowten. Much nicer than most. Maybe he needs tattoos too. Shall we?”

The three Sams exchanged a look, and then, *pop*, sent copies of their own tattoos to Slowten, who stumbled back to the purple armchair and fell into it. “I don’t know what to say. Other than, uh, *ow*. And thank you.”

“I decided I didn’t really want to have to show you the equations under my shirt,” Sam Three said. Now you can study them on your own body. Although,” they added, “you might need a mirror for the ones on your back. And to read the ones on your head, you’ll have to shave it.”

“That’s all right,” Slowten said. “I’m not quite as eager to publish my findings as I used to be. We probably should keep this knowledge to ourselves.” His eyelids fluttered down as he concentrated on the purple-black tattoos that now covered every inch of his skin, and they began to fade. “I see how powerful these are,” he said. “You really just have to visualize something and it can be done. That’s too much power to share with humanity, at least until we’re sure there aren’t more people as power-hungry as they were. Let’s agree to keep our tattoos out of sight?”

“I certainly don’t intend to go around with visible tattoos!” Sam Two said. “What would my mother and father say? Uh, our mother and father. Sorry.” He glanced at Sam.

“We could ask them,” Sam suggested. “But first, let’s get rid of all this. Where are we, do you think? Are we under the city?”

“Yes but no,” Sam Three said. “This seems to be a city that people abandoned long ago. Something went wrong.”

“Probably some earlier evil mastermind tried to take over and messed it up instead,” Sam said. “In which case, I don’t suppose another explosion or two would do any serious harm.”

“We could destroy the piano factory and the melting pools,” Sam Three said, “but why not leave the in-portals?”

“The whats?” Slowten asked.

“Those chutes above us where our enemies are diverting precious metals from gravitational waves. If we leave the inflow, these caves will fill up with precious metal dust. In thousands of years, maybe someone will come along and start digging. It’ll seem like nothing more suspicious than a really productive mine by then.”

Sam, Sam Two, and Slowten looked at Sam Three in surprise. “That’s an excellent plan,” Slowten said.

“Who’s the brilliant nerd now?” Sam Two teased.

“I didn’t say you were a *brilliant* nerd,” Sam Three countered. “Although to be honest, you might be,” they added with a smile.

“Thinking suits you,” Sam said to Sam Three. “You should try it more often.”

“Not me,” Sam Three said, shaking their head firmly. “When this is over, I can’t wait to start a temple of my own.”

“Temple?” Slowten asked, surprised.

“It’s more of a dojo for some really serious martial arts,” Sam explained. “Will you rebuild the old one?” she asked.

“I guess so. Have you got this?” they asked.

Sam nodded. “Go ahead. I’m sure it will feel good to go back home.”

Pop. Sam Three was gone.

“Well, now,” Slowten said. “That was impressive.”

“Not as impressive as exploding this place at the same time we transport out of it,” Sam said. “Ready?”

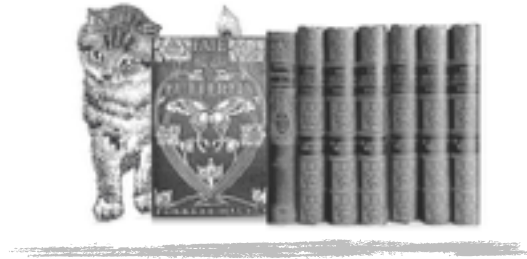
“Hold on a minute!” Sam Two exclaimed. “What if you get the timing wrong?”

“Then you better help me.” Before any more objections could be voiced, she began to shimmer.

“Hurry, take her hand!” Sam Two cried as he reached for her—and Slowten did the same.

Chapter 23

Home



They could feel the stone beneath their feet begin to shake and they could hear an ominous rumbling rising to a tremendous roar as the ceiling began to collapse. But then they were spinning through silence until, *pop pop pop*, they appeared in the main room of Sam Two's Book & Bat store, with its tea tables surrounded by bookshelves (the winged cat was perched atop one of them).

And sitting at the same table as before, still holding a teacup, was Sam's mother. However, one thing had definitely changed. Across the table from her, also holding a teacup, was a smiling Sam Three. "Welcome back," Sam Three said cheerily. "So glad you made it in time for tea."

"I thought you were going home!" Sam Two exclaimed.

"Yes, but where exactly *is* home?" Sam Three asked. "I realized that I've grown rather attached to you."

"To my *mother*," Sam Two corrected. "You keep making fun of *me*."

"Like a little brother, yes." Sam Three smiled. "So, what do you say?"

"*I* say," Sam's mother announced, standing, "that we had better wake your father and let him know that two of your, ah, cousins, are going to come and stay with us for a while." And then she headed for the staircase, leaving the others to gape after her in surprise.

"Goddess!" Sam Two exclaimed. "This place is a madhouse!"

"It's a good idea," Sam said, "for you two, but this isn't my home. And, well, they aren't my parents now." She frowned. "I miss them. God how I miss them! But my home's in a different world. If you'll still have me?" she asked, turning to Slowten.

"Of course! But you know, Sam, now that we both have these equations tattooed on us, we can pop between worlds for a visit whenever we wish."

"Is that okay with you?" Sam asked, looking at Sam Two.

"Of course!" He turned and opened his arms to give her a hug, but thought better of it. "I'm not sure that's safe," he said. "Unless you don't mind swapping bodies again."

"No thanks, I'm good," Sam said. "But I'm glad we met. Shall we, Slowten?"

Slowten frowned. "Don't you want to meet your father?"

"On our next visit, I think. Right now, I just want to go home."

“That’s good, actually,” Slowten said, “because we’re expecting to get slammed at the restaurant tonight. We really could use your help.”

“The restaurant!” Sam grinned. “That sounds so normal. I can’t wait to plate dozens of canapés and be told by you I got them wrong and have to do them over.”

“It’s all in the wrist, Sam,” Slowten said, sounding stern. “And don’t lose focus in the middle or you’ll get sloppy.”

And then they shimmered and were gone.

“I like her,” Sam Three said. “Don’t you?”

“Well... I guess so,” Sam Two said. “I’m still trying to process everything myself.”

“You’re no warrior,” Sam Three continued, eyeing him, “but you’re a good person, and that’s something. A lot, actually. I’ll teach you the rest, don’t worry.”

“I don’t want to become a warrior!” he exclaimed. “I just want to be a bookstore manager when I grow— Oh! Here’s Dad! Uh, Dad, this is a kind of distant cousin of sorts, I guess you’d call them. Dad, meet Sam (by which he meant Sam Three). Sam, meet Dad. You know, if you’re really going to stay with us, we ought to give you a nickname of some sort. Just to avoid confusion,” he added when Sam Three raised a questioning eyebrow. “How about, uh... Well, I’ll try to think of one.”

“You’re crazy, Samuel,” Sam Three chuckled. “Or else I am. Which do you think it is?”

“That’s it! You’re Crazy! Dad, meet my cousin Crazy. They’ll be staying with us for a while, if you don’t mind?”

“Hello. Welcome. My goodness, don’t you have a lot of tattoos! Very nice, of course. Very nice indeed. Do you like to read? I have a wonderful old book about a young man who—wait, *are* you a young man? Well, this young person goes to sea on a whaling ship, and one of his shipmates is covered with tattoos. Of course they all die at sea when a gigantic white whale attacks them. Except the boy. He lives to tell the tale. *Moby Dick* by Herman Melville. Wonderful story. Would you like me to find it for you?”

“Dad, don’t you remember?” Sam Two asked. “We moved it to the nightmares section. You mustn’t keep trying to make people read it at night. Sorry about that,” he went on. “We’re all a bit crazy here, I’m afraid.”

“I suppose it’s a little heavy for night reading,” Sam’s father admitted. “But speaking of characters with tattoos, doesn’t the pirate with the treasure map have tattoos in Robert Louis Stevenson’s *Treasure Island*?”

“Yes, Dad, but that’s in the daytime reading department,” Sam Two said. “He dies rather horribly along with most of the other pirates. Not easy to fall asleep to that book, either,” he added, addressing Sam Three again, “but it’s a fun read.”

“Well, speaking of islands,” their dad continued, “how about a *really* fun book about guests who are invited to a summer vacation on a rich man’s private island? It’s by Agatha Christie and it’s called, *And Then There Were None*. There’s a lovely old summer

house and a beach, and I think two of the guests actually survive. Too bad about the other ten, of course..." He frowned.

"Dad!" Sam Two exclaimed.

"Crazy is good," Sam Three said with a chuckle. "I'll fit right in. And I'd love to start reading, but is there a gym nearby? I need to keep up with my training too."

"I'm sure we can find you a dojo," Sam Two said. "Can you give me a hand clearing these tea things? When Dad comes downstairs we usually start getting ready for the night's business. And baking lots of scones, of course. Can't have night reading without mint tea and chocolate chip scones, can you?"

"I guess not," Sam Three said with a grin. "I've never tried night reading, or eaten scone, but it's always good to try new things!"

Chapter 24

Redecorating



Meanwhile, Sam and Slowten had arrived in the now oddly empty living room of their apartment. The wall where the chalkboard had been was bare and the floor lamp looked lonely next to where the armchair used to sit.

“I’ll just transport my chair back here,” Slowten said. “Let me see if I... Oh!”

The chair had indeed popped into place, summoned by the equations tattooed on his skin. However, it was no longer purple. It was a filthy black, dented and distorted, and it was smoking.

“Send it back before it sets off the fire alarm,” Sam said.

When it had popped away, taking most of the smoke with it, she added, “Sorry. I blew it up along with your chalkboard, I guess.”

“Yes. In the rubble. Oh well, it’s a long overdue chance to decorate this place in a more homey manner. Would you like to pick out a sofa and a pair of comfy chairs?”

“Me?” Sam was surprised.

“Well, interior decorating isn’t my strong suit.”

“I guess not.” Sam smiled. “But we can’t afford new furniture, can we?” she asked, her smile fading.

“My doubles seem to have amassed a large fortune. Do you think it would be wrong to borrow a little something from their corporate accounts?”

“I think they don’t deserve a fortune of *any* size,” Sam said, frowning.

“No. they’ll just cause more trouble with it. Do you know about the global financial network?”

“The what?”

“Well, suffice it to say that banks are interlinked all over the world. And my evil doubles have set up linkages between worlds too. Now that you’ve tattooed me with all these beautiful equations, I can easily sense what my doubles have been up to.”

“And?” Sam asked, eyeing him with concern.

“And I have no interest in taking money for myself other than to buy a couch, if that’s what you’re worried about.” He smiled. “As a matter of fact, I’ve already begun to route their fortunes out into nonprofits and charities all across the worlds. Soon their accounts will be empty and they won’t find even a trace of their previous fortunes. They’ll have to make a living the honest way by getting jobs, just like the rest of us. But I

did divert a modest amount into a savings account for you and your two sidekicks. You should be able to furnish this apartment to your liking and still have a fair amount saved toward college.”

“College?”

“I thought some college savings might be helpful. We have a tradition of scholarship in our family, you know. I was, in fact, quite a gifted student—until they decided I’d gone crazy and threw me out.”

“You weren’t crazy after all.”

“No.” He smiled. “But it’s probably best to let them continue to think so. Knowledge of the delta equations seems to be a dangerous thing. As for you, however, perhaps a degree in one of the hard sciences, physics, let’s say, and then a doctoral program in astrophys—”

“Thanks, but no thanks.” Sam interrupted with a chuckle. “Actually, I’m thinking about a career in cooking. Is there a classical French cooking school you’d recommend?”

“Most certainly. There are several that I’d recomm—*Oh no, we’re late!* We’ve got to get to the restaurant *now!*”

And so they were off again—sprinting down the dusty stairs and running along the sidewalk past The Book & Cat, which was open at last. Warm light spilled out the windows and there were sounds of happy laughter and conversation from within. The orange tabby was in its element, purring and enjoying attention from the guests. But Sam and Slowten were in too much of a hurry to investigate. There were canapés to prepare and sauces to be made, and their friends in the kitchen were expecting them.

Chapter 25 School Again



After a few days off to recover her composure, Sam actually went back to school. It's true she'd vowed never to return, but she realized that most of the humiliation had been in her own mind, and it wasn't so terribly embarrassing, after all. Of course there was the little matter of her hair, which had been short, but now was long again.

She decided to cut her hair short in the style of Sam Two before returning to school. After all, everyone there thought she'd already cut it, so it was the simplest solution, and maybe she liked the way Gina had looked at her with Sam Two's short hair. *But the main thing*, she rationalized to herself, *is that it makes getting ready for school that much easier. I don't want to flunk any more math quizzes!* Anyway, that's what she told herself, along with the thought that of course she could always grow it out again if she wanted to.

Slowten offered to purchase new textbooks for her, but she declined his offer, knowing how tight money was for him. Instead, she simply popped them out of the storage closet and into her bag when no one was looking—and made a mental note to return them the same way at the end of the semester in like-new condition. Sam didn't want to make a habit of using her tattoos, *but aren't there exceptions to every rule?* she asked herself. *As long as there aren't too many exceptions*, she added sternly.

One day at recess, she even got up the courage to ask Gina to the school prom. Actually, it's more that it just popped out of her, surprising both of them. They'd overheard some of the seniors talking about who they'd be going with, which must've been what inspired Sam.

"That's not until spring!" Gina exclaimed, eyeing Sam suspiciously. "And I'm not sure first year students are allowed. Isn't it for seniors?"

"I dunno. Sorry." Sam felt embarrassed (although not as much as when she'd had to go to school in the wrong body; after that, she was finding it easier to handle just about anything).

"You're cute when you're embarrassed," Gina said, smiling. "And sure, I'll go to prom with you, *if* they'll allow it. That way I won't have to choose between any of those

annoying boys who flirt with me. I'm sure they'll all be asking." She tossed her silver hair.

"Uh, don't you think it's *you* who flirts with *them*?" Sam asked.

"Maybe, but so what? And here's another idea," Gina added. "Why don't we just go on a little date next week as practice for the prom. Seeing as you're so hopelessly awkward, you're going to need a *lot* of practice."

"A date?" Sam was flabbergasted. "For real?"

"We can get tea and scones at that bookshop you're always talking about. Deal?"

"Deal!"

"The Book and Cat was open regularly at last. Mr. Transiter, who'd been hiding from the corrupt sages and guardians when Sam first came to the neighborhood, was back at his post, and he often hosted Slowten and Sam. They got to be rather good friends—although his prices for books were higher than The Literary Lamppost, so Sam still went there for most of her reading.

Sometimes Sam Three would pop in (quite literally) to join Sam and her friends, just as hot scones and a fresh pot of tea were emerging from the back room of The Book & Cat. That was always fun. Sam Two, however, did not pop anywhere if he could avoid it. Delta equation travel still made him nervous, so he kept his tattoos invisible and usually pretended that he didn't have any.

After giving it some thought, Sam did not bring Gina to The Book & Cat. She wasn't ready to go on her first date ever in a place where she was so well known. Some things are better done with more privacy than that. Instead, she took Gina to a cafe a few blocks over that was much more boring and had no books, but they did not need to be entertained, they had plenty of fun just talking and being together. The next time they met up after school, they *did* go to The Book & Cat, and it was magical. Mr. Transiter smiled benignly from behind his desk covered with high piles of first editions waiting to be priced, and they lingered over a large pot of hibiscus tea and a plate of his best chocolate scones. After that, they got into the habit of going to The Book & Cat after school on days when Gina wasn't working (she had a job three days a week at a candy store near school). By then, they'd grown more comfortable with their new status as a couple.

Sam also got into the habit of going to dinner at Sam Two's house every couple of weeks. Sam Three was still based there, using an attic bedroom above the creaking Book & Bat sign. And happily—perhaps because there were fewer disturbances in the gravitational waves these days—her father's health was improving. He joined them at the dinner table, smiling proudly as the three Sams traded stories about their weeks in parallel worlds. Occasionally he'd get up to go find a book and offer it to one or the other of them.

Sam's mother seemed to be getting her memory back more fully, and she took a keen interest in Sam's life, asking for copies of her report cards and questioning her about how each week went. But Sam continued to live with Slowten and go to school with

Gina. It wasn't all that bad to be living there, after all. She and Slowten were used to each other. And he *could* be *slightly* helpful with her algebra homework—although she still had to keep an eagle eye on him in case he got annoyed with another worksheet and tried to crumple it up. “Why do they teach it this way!” he'd complain as his long finger raced over an assignment. “Just do it like this!” Then he'd scribble something on his (new, clean) chalkboard and, amazingly, Sam would nod and say, “Oh, I see! It's so simple when you do it like that.”

Best of all, they'd promoted her at the restaurant, allowing her to do advanced prep work and giving her a proper, if small, paycheck. She even got to make sauces sometimes. The idea of going to a culinary academy after high school was seeming better and better to her.

But in the short term, there was the school year to finish and the prom to sneak into somehow. At least that's what Gina said. Sam knew by now that they weren't ever going to be allowed—the prom really was just for seniors—but Gina enjoyed cooking up wild schemes to get them in. Her latest was to pretend to go as the official dates of Kenji and Haru, senior boys whose parents disapproved of their dating. Gina nearly convinced them, but then they learned that freshmen weren't allowed to go at all, not even as dates.

Gina always liked a challenge, so Sam humored her schemings. However, Sam figured that when the time came, she'd just use her delta equations to pop them inside once the dancing began. But she didn't tell Gina. Not yet.

And while things were more or less back to normal, she and the other Sams, along with Slowten and Mr. Transiter, had special assignments to take care of. These mostly consisted of weekend checkups on parallel worlds to make sure the corrupted guardians and sages weren't making a comeback. One of their periodic stops was the unpopulated mirror world where stellar gold, silver and platinum was still funneling into underground caves. So far, there was no sign that anyone had come back to try to take the gold. The precious metal dust from multiple worlds was accumulating there. Much of it still ended up under ground, but gold dust blew around the surface too, accumulating in valleys. They'd bring it home accidentally in their pockets and shoes, like sand from the beach.

“It's best to just leave things as they are and not disrupt the markets for precious metals,” Mr. Transiter would remind them. “And don't forget, we mustn't tell anyone about this!”

“Sure thing,” Sam always said, exchanging a glance with Sams Two and Three. They had no interest in enriching themselves the way the bad Slowtens and Guardians had. However, they *did* appreciate the thought that their college savings accounts would be sufficient when the time came. After all, there had to be some small compensation for saving so many worlds.

Oh, and another thing. When the winter holidays came, Slowten announced that he was going out—and while he was gone, Sam should not, under *any* circumstances, leave her room. And *especially*, she was to avoid the living room.

“Why?” she demanded, puzzled.

“I wouldn’t want anything to happen to you,” he said over his shoulder as he went out the door.

“Like I can’t take care of myself,” Sam muttered, going over to sit in one of their new armchairs. Whatever Slowten had in mind, she wanted to have a good view of it.

She was beginning to get bored with her current book—*War and Peas*, an odd version of the classic that came from The Book & Bat. As she was just about to get up, a shiny gold piano appeared near the ceiling in the middle of the living room.

Sam gasped. It was a startling reminder of the many attempts to crush her with pianos during her last adventure. Then she realized that it was going to miss her. She’d been about to divide it into a thousand minuscule pianos, but instead she let it land with a tremendous thud on the floor.

When the piano had settled in place, Sam approached it and spotted a note on the music stand, scrawled in Slowten’s sloping cursive. It read, “A present for my favorite Sam.” She wondered how Slowten had found another gold piano. *He must’ve gone back to that piano store. What a nice present!* Sam had mentioned that she’d like to start taking lessons and Slowten must have remembered that.

Then she was almost struck by a falling piano bench and had to use an antigravity equation to give her time to get out of the way. *I see why he wanted me to stay in my room*, she thought.

Someone from the downstairs apartment shouted about the noise, but Sam just chuckled. They had no idea how much more noise they were going to be complaining about in the very near future.

Once seated at the piano, Sam found herself at a loss. Of course she did not yet know how to play. But then she remembered someone who did! Bringing her tattoos into view, Sam examined one on the inside of her right arm, then smiled and sent a pulse out from it.

Far away in a distant world where Sam Three was about to win a junior mixed martial arts tournament, they paused as Sam’s request came through, smiled, tossed their opponent out of the ring, then closed their eyes and concentrated hard on all their carefully gained knowledge in order to send years of piano practice through the gravitational waves to Sam.

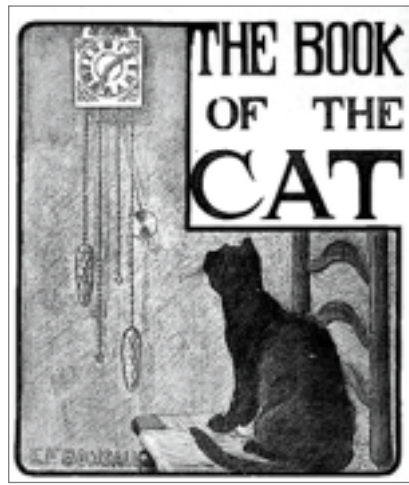
“The Moonlight Sonata,” Sam said out loud to themselves. “Yes, that’s as fine a piece as any for my first!” And then she smiled and began to play.

It turns out that solid gold pianos have a wonderfully mellow, soft tone, and soon the apartment was filled with the lovely melody. The music was *so* lovely that the elderly couple who lived downstairs didn’t even curse and bang the ceiling with their brooms.



The End

Afterward
Now What?



Sam got a letter from Sam Two, sent through a delta hole—which means it popped out of the air and fell onto her blanket. That can be startling until you get used to it, but Sam still lacked a cell phone so it's not like anyone could send her a text message—even if they did go from world to world (which, as far as I know, they don't; not yet).

The note from Sam Two said:

Dear Sam,

I just found a clue! It's something that my sage left behind in his secret other version of my house where his offices are. (You remember: Booby trapped doors, tsunamis, gulls in closets?) Since he disappeared, I go there every now and then to see if he's returned. (More on that in a minute, but first some really big news!) I sat at his desk last time I was there and when I got up, I accidentally pulled the seat cushion off the chair and guess what? He'd taped a slip of paper to the chair seat to hide it. It just says, "Sam's parents: Mirror Mirror?" Which seems like a stupid thing to write down and hide. Unless it isn't.

You remember how he used a mirror under the trap door to the underground caverns? That was to make it a portal into a mirror world where the bad guys hid their piano manufacturing. Turns out that you can mirror that mirror world and go to yet another version of my world. No gold dust there because the bad guys didn't go there—but by using two mirrors, my sage apparently did! See, mirroring a mirror world does not just take you back home, it puts you in a third reality. Don't ask me how, I'm still trying to work out the physics of it, but it does.

I don't know where my sage is now, all I know is that his offices are repaired from the explosion and he's been back more than once because I've found his footprints in the dust a couple of times. Is he tracking down some new conspiracy? Why is he still hiding? However, after finding that old note of his, I'm even more curious about what he was doing many years ago. He was supposed to be finding my parents. I guess he stopped when yours popped up here, but I believe this note, which is old and faded, might be a clue as to where he was going to look next.

So I repaired the trapdoor and set it up with two mirrors. They face each other, and when I climbed down the ladder between them with all my delta equations activated, I came out not in the demolished gold facility, but in the basement of a bookstore (we don't have a basement in my bookstore, but in some worlds they do). The bookstore there is called The Wandering Cat's Readery and Teahouse. I think it's in a new kind of parallel world not even the guardians know about. It's a mirror mirror world!

I know I said I was still working out the science, but I recall you'd heard about the puzzle involving dark matter. All the calculations about the universe say that the mass we know about—planets, stars, particles—is far too little. Like a tenth of what it should be. And when you consider alternate worlds, it might seem like they balance that equation with their hidden mass, but the thing is, they are in alternate solar systems, which are in alternate universes, which also have hidden mass. So they only make the puzzle that much bigger.

But what if the mirroring phenomenon explains it? What if, in each world, rather than leaving it, you mirror and then mirror again and again. It's like there are folded layers, the reflections of reflections, going down far enough to explain where all that mass is hidden. If I'm right, then the guardians and sages and physicists all miss the main point! In each world, we live in one of ten mirror realities and we can drill into the others, layer after mirrored layer, instead of popping to a parallel world. See, I have been busy! Well, busy thinking. And somewhat busy exploring too.

At this point, Sam tossed the letter aside and went into the kitchen to get a baguette and some camembert cheese that Slowten had brought home the night before, because all that reading about Sam Two's theoretical physics was a bit much for her. But then she got to wondering about the 'exploring' part of his letter, so she went back to pick it up again:

Where we found the gold is just the first layer of mirror beneath my world. Someone blew up the city in that mirror world long ago by misusing gravitational waves

and drove everyone away. But in the mirror mirror of it, there is a nice Middle Eastern neighborhood.

And I found someone who looks like us there! Actually, her cat found me. Cats are so clever, aren't they? Guess what her name is. Our double, not her cat. She's Sam, of course, but that's short for Samra, which is an Arabic name. And the bookstore serves falafels and mint tea instead of scones. They're delicious! I have to bring you there some time.

But the really strange thing about her is...

You probably already guessed it...

Yes, she lost her parents too. In fact, before either of us did. The conspiracy started earlier in her world than in mine or yours. Her mother was an honest guardian who tried to stop a dishonest sage (except they call them sorcerers there). I don't know where he sent her mother and father, but I do know that a new set of parents showed up in their place.

Mine.

They didn't seem to recognize me. Not at first anyway. They'd had a traumatic experience when they came through to Samra's world. She told me they suddenly popped up in the street in front of her bookshop, where unfortunately they were struck by a florist's van. They're okay now, but they struggle a lot with memory issues. Maybe it was the delta travel that hurt their memories even more than the accident, I don't know. They seemed confused to see two of us, so I left them where they were and came back to talk to you about what to do next.

By the way, Amaya says hi. She came into Samra's bookstore while I was there. Turns out she works part time for Samra's parents and she says she knows you, although I can't imagine how. She was kind of creepy and had really long black hair except for some strands of white. Do you remember her?

Oh, also, Sam Three has been gone for a few more days than I expected. I know they're invincible, but honestly I'm a little worried because I can usually feel their presence when I activate the tracing tattoo, but I can't feel them now. Where could they be? Do you feel them? Well, I shouldn't worry, I know I do that too much, but it makes me nervous. I'll wait another day or two and hopefully they'll pop back up.

Say hello to Gina and Slow,

Your most intelligent double, Samuel

Sam read the letter a second time to make sure she hadn't missed any details, then she pulled on her hightop black sneakers and laced them firmly. Grabbing a pencil and a blank sheet of paper, she wrote a quick note to Slowten (it was a rainy, Tuesday cold evening and he was at the restaurant, but they hadn't called her in). The note said, *Look at Sam Two's letter and follow me to The Book & Bat if you are as troubled by it as I am.*

Then she slipped into her old sweatshirt, pulled the hood up over her short black hair, glowed from a thousand tattoos, and disappeared with a *pop*.

*

To be continued...

