

LESSONS IN CHEMISTRY



CHAPTER 1

November 1961

Back in 1961, when women wore shirtwaist dresses and joined garden clubs and drove legions of children around in seatbeltless cars without giving it a second thought; back before anyone knew there'd even be a sixties movement, much less one that its participants would spend the next sixty years chronicling; back when the big wars were over and the secret wars had just begun and people were starting to think fresh and believe everything was possible, the thirty-year-old mother of Madeline Zott rose before dawn every morning and felt certain of just one thing: her life was over.

Despite that certainty, she made her way to the lab to pack her daughter's lunch.

Fuel for learning, Elizabeth Zott wrote on a small slip of paper before tucking it into her daughter's lunch box. Then she paused, her pencil in midair, as if reconsidering. *Play sports at recess but do not automatically let the boys win*, she wrote on another slip. Then she paused again, tapping her pencil against the table. *It is not your imagination*, she wrote on a third. *Most people are awful*. She placed the last two on top.

Most young children can't read, and if they can, it's mostly words like "dog" and "go." But Madeline had been reading since age three and, now, at age five, was already through most of Dickens.

Madeline was *that* kind of child—the kind who could hum a Bach concerto but couldn't tie her own shoes; who could explain the earth's rotation but stumbled at tic-tac-toe. And that was the problem. Because while musical prodigies are always celebrated, early readers aren't. And that's because early readers are only good at something others will eventually be good at, too. So being first isn't special—it's just annoying.

Madeline understood this. That's why she made it a point each morning—after her mother had left and while her baby-sitter neighbor, Harriet, was busy—to extract the notes from the lunch box, read them, then store them with all the other notes that she kept in a shoebox in the back of her closet. Once at school she pretended to be like all the other kids: basically illiterate. To Madeline, fitting in mattered more than anything. And her proof was irrefutable: her mother had never fit in and look what happened to her.

It was there, in the southern Californian town of Commons, where the weather was mostly warm, but not too warm, and the sky was mostly blue, but not too blue, and the air was clean just because air just was back then, that she lay in her bed, eyes closed, and waited. Soon she knew there'd be a gentle kiss on her forehead, a careful tuck of covers about her shoulders, a murmuring of "Seize the day" in her ear. In another minute, she'd hear the start of a car engine, a crunch of tires as the Plymouth backed down the drive, a clunky shift from reverse to first. And then her permanently depressed mother would set off for the television studio where she would don an apron and walk out onto a set.

The show was called *Supper at Six*, and Elizabeth Zott was its indisputable star.

CHAPTER 2

Pine

Once a research chemist, Elizabeth Zott was a woman with flawless skin and an unmistakable demeanor of someone who was not average and never would be.

She was, as all good stars are, discovered. Although in Elizabeth's case, there was no malt shop, no accidental bench sighting, no lucky introduction. Instead, it was theft—specifically food theft—that led to her discovery.

The story was simple: a child named Amanda Pine, who enjoyed food in a way some therapists consider significant, was eating Madeline's lunch. This was because Madeline's lunch was not average. While all the other children gummed their peanut butter and jelly sandwiches, Madeline opened her lunch box to find a thick slice of leftover lasagna, a side helping of buttery zucchini, an exotic kiwi cut into quarters, five pearly round cherry tomatoes, a tiny Morton salt shaker, two still-warm chocolate chip cookies, and a red plaid thermos full of ice-cold milk.

These contents were why everyone wanted Madeline's lunch, Madeline included. But Madeline offered it to Amanda because friendship requires sacrifice, but also because Amanda was the only one in the entire school who didn't make fun of the odd child Madeline already knew she was.

It wasn't until Elizabeth noticed that Madeline's clothes began to hang on her bony frame like bad drapes that she began to won-

der what was going on. According to her calculations, Madeline's daily intake was exactly what her daughter required for optimal development, making weight loss scientifically inconceivable. A growth spurt, then? No. She'd accounted for growth in her calculations. Early onset food disorder? Not likely. Madeline ate like a horse at dinner. Leukemia? Definitely not. Elizabeth wasn't an alarmist—she wasn't the type who lay awake at night imagining her daughter was plagued by incurable disease. As a scientist, she always sought a sensible explanation, and the moment she met Amanda Pine, her little lips stained a pomodoro-sauce red, she knew she'd found it.

“Mr. Pine,” Elizabeth said, sweeping into the local television studio and past a secretary on a Wednesday afternoon, “I've been calling you for three days, and not once have you managed the courtesy of a return call. My name is Elizabeth Zott. I am Madeline Zott's mother—our children attend Woody Elementary together—and I'm here to tell you that your daughter is offering my daughter friendship under false pretenses.” And because he looked confused, she added, “Your daughter is eating my daughter's lunch.”

“L-lunch?” Walter Pine managed, as he took in the woman who stood resplendent before him, her white lab coat casting an aura of holy light save for one detail: the initials “E.Z.” emblazoned in red just above the pocket.

“Your daughter, Amanda,” Elizabeth charged again, “eats my daughter's lunch. Apparently, it's been going on for months.”

Walter could only stare. Tall and angular, with hair the color of burnt buttered toast pulled back and secured with a pencil, she stood, hands on hips, her lips unapologetically red, her skin luminous, her nose straight. She looked down at him like a battlefield medic assessing whether or not he was worth saving.

“And the fact that she pretends to be Madeline's friend to get her lunch,” she continued, “is absolutely reprehensible.”

“Wh—who are you again?” stammered Walter.

“Elizabeth Zott!” she barked back. “Madeline Zott’s mother!”

Walter nodded, trying to understand. As a longtime producer of afternoon television, he knew drama. But this? He continued to stare. She was stunning. He was literally *stunned* by her. Was she auditioning for something?

“I’m sorry,” he finally said. “But all the nurse roles have been cast.”

“I beg your pardon?” she snapped.

There was a long pause.

“Amanda Pine,” she repeated.

He blinked. “My daughter? Oh,” he said, suddenly nervous. “What about her? Are you a doctor? Are you from the school?” He leapt to his feet.

“Good god, no,” Elizabeth replied. “I’m a chemist. I’ve come all the way over here from Hastings on my lunch hour because you’ve failed to return my calls.” And when he continued to look baffled, she clarified. “Hastings Research Institute? Where Groundbreaking Research Breaks Ground?” She exhaled at the vacuous tagline. “The point is, I put a great amount of effort into making a nutritious lunch for Madeline—something that I’m sure you also strive to do for your child.” And when he continued to stare at her blankly, she added, “Because you care about Amanda’s cognitive and physical development. Because you know such development is reliant on offering the correct balance of vitamins and minerals.”

“The thing is, Mrs. Pine is—”

“Yes, I know. Missing in action. I tried to contact her but was told she lives in New York.”

“We’re divorced.”

“Sorry to hear, but divorce has little to do with lunch.”

“It might seem that way, but—”

“A man *can* make lunch, Mr. Pine. It is not biologically impossible.”

“Absolutely,” he agreed, fumbling with a chair. “Please, Mrs. Zott, please sit.”

“I have something in the cyclotron,” she said irritably, glancing at her watch. “Do we have an understanding or not?”

“Cyclo—”

“Subatomic particle accelerator.”

Elizabeth glanced at the walls. They were filled with framed posters advertising melodramatic soap operas and gimmicky game shows.

“My work,” Walter said, suddenly embarrassed by their crassness. “Maybe you’ve seen one?”

She turned back to face him. “Mr. Pine,” she said in more conciliatory manner, “I’m sorry I don’t have the time or resources to make your daughter lunch. We both know food is the catalyst that unlocks our brains, binds our families, and determines our futures. And yet . . .” She trailed off, her eyes growing narrow as she took in a soap opera poster featuring a nurse giving a patient some unusual care. “Does anyone have the time to teach the entire nation to make food that matters? I wish I did, but I don’t. Do you?”

As she turned to leave, Pine, not wanting her to go or fully understanding what he was about to hatch, said quickly, “Wait, please just stop—*please*. What—what was that thing you just said? About teaching the whole nation how to make food that—that *matters*?”

Supper at Six debuted four weeks later. And while Elizabeth wasn’t entirely keen on the idea—she was a research chemist—she took the job for the usual reasons: it paid more and she had a child to support.

From the first day Elizabeth donned an apron and walked onto the set, it was obvious: she had “it,” the “it” being that elusive, entirely watchable quality. But she was also a person of substance—someone so forthright, so no-nonsense that people didn’t know what to make of her. While other cooking shows featured good-natured chefs gleefully tipping back the sherry, Elizabeth Zott

was serious. She never smiled. She never made jokes. And her dishes were as honest and down-to-earth as she was.

Within six months, Elizabeth's show was a rising star. Within a year, an institution. And within two years, it had proven its uncanny power not only to unite parents with their children, but citizens with their country. It is not an exaggeration to say that when Elizabeth Zott finished cooking, an entire nation sat down to eat.

Even Vice President Lyndon Johnson watched her show. "You want to know what I *think*?" he said as he waved off a persistent reporter. "I think you ought to write *less* and watch TV *more*. Start with *Supper at Six*—that Zott, she knows what she's doing."

And she did. You'd never find Elizabeth Zott explaining how to make tiny cucumber sandwiches or delicate soufflés. Her recipes were hearty: stews, casseroles, things made in big metal pans. She stressed the four food groups. She believed in decent portions. And she insisted that any dish worth making was worth making in under an hour. She ended every show with her signature line: "Children, set the table. Your mother needs a moment to herself."

But then a prominent reporter wrote an article entitled "Why We'll Eat Whatever She Dishes Out" and, in passing, referred to her as "Luscious Lizzie," a nickname that, because it was both apt and alliterative, stuck to her as quickly as it did the paper it was printed on. From that day forward, strangers called her Luscious, but her daughter, Madeline, called her Mom, and although she was just a child, Madeline could already see that the nickname belittled her mother's talents. She was a chemist, not a TV cook. And Elizabeth, self-conscious in front of her only child, felt ashamed.

Sometimes Elizabeth lay in bed at night and wondered how her life had come to this. But the wonder never lasted long because she already knew.

His name was Calvin Evans.

CHAPTER 3

Hastings Research Institute

TEN YEARS EARLIER, JANUARY 1952

Calvin Evans also worked at Hastings Research Institute, but unlike Elizabeth, who worked in crowded conditions, he had a large lab all to himself.

Based on his track record, maybe he deserved the lab. By age nineteen, he had already contributed critical research that helped famed British chemist Frederick Sanger clinch the Nobel Prize; at twenty-two, he discovered a faster way to synthesize simple proteins; at twenty-four, his breakthrough concerning the reactivity of dibenzoselenophene put him on the cover of *Chemistry Today*. In addition, he'd authored sixteen scientific papers, received invitations to ten international conferences, and had been offered a fellowship at Harvard. Twice. Which he turned down. Twice. Partly because Harvard had rejected his freshman application years earlier, and partly because—well, actually, there *was* no other reason. Calvin was a brilliant man, but if he had one flaw, it was his ability to hold a grudge.

On top of his grudge holding, he had a reputation for impatience. Like so many brilliant people, Calvin just couldn't understand how no one else *got it*. He was also an introvert, which isn't really a flaw but often manifests itself as standoffishness. Worst of all, he was a rower.

As any non-rower can tell you, rowers are not fun. This is because rowers only ever want to talk about rowing. Get two or

more rowers in a room and the conversation goes from normal topics like work or weather to long, pointless stories about boats, blisters, oars, grips, ergs, feathers, workouts, catches, releases, recoveries, splits, seats, strokes, slides, starts, settles, sprints, and whether the water was really “flat” or not. From there, it usually progresses to what went wrong on the last row, what might go wrong on the next row, and whose fault it was and/or will be. At some point the rowers will hold out their hands and compare calluses. If you’re really unlucky, this could be followed by several minutes of head-bowing reverence as one of them recounts the perfect row where it all felt easy.

Other than chemistry, rowing was the only thing Calvin had true passion for. In fact, rowing is why Calvin applied to Harvard in the first place: to row for Harvard was, in 1945, to row for the best. Or actually *second* best. University of Washington was *the* best, but University of Washington was in Seattle and Seattle had a reputation for rain. Calvin hated rain. Therefore, he looked further afield—to the other Cambridge, the one in England, thus exposing one of the biggest myths about scientists: that they’re any good at research.

The first day Calvin rowed on the Cam, it rained. The second day it rained. Third day: same. “Does it rain like this *all* the time?” Calvin complained as he and his teammates hoisted the heavy wooden boat to their shoulders and lumbered out to the dock. “Oh *never*,” they reassured him, “Cambridge is usually quite balmy.” And then they looked at one another as if to confirm what they had already long suspected: Americans were idiots.

Unfortunately, his idiocy also extended to dating—a big problem since Calvin very much wanted to fall in love. During all six lonely years he spent in Cambridge, he managed to ask out five women, and of those five, only one consented to a second date,

and that was only because she'd thought he was someone else when she answered the phone. His main issue was inexperience. He was like a dog who, after years of trying, catches a squirrel and then has absolutely no idea what to do with it.

"Hello—uh," he'd said, his heart pounding, his hands moist, his mind suddenly completely blank as his date opened the door. "Debbie?"

"It's *Deirdre*," his date sighed, taking the first of what would be many glances at her watch.

At dinner, the conversation lurched between the molecular breakdown of aromatic acids (Calvin), to what movie might be playing (*Deirdre*), to the synthesis of nonreactive proteins (Calvin), to whether or not he liked to dance (*Deirdre*), to look at the time, it was already eight thirty p.m. and he had to row in the morning so he would be taking her straight home (Calvin).

It goes without saying that there was very little sex after these dates. Actually, there was none.

"I can't believe you're having trouble," his Cambridge teammates would tell him. "Girls *love* rowers." Which wasn't true. "And even though you're an American, you're not bad looking." Which was also not true.

Part of the problem was Calvin's posture. He was six feet four inches tall, lanky and long, but he slouched to the right—probably a by-product of always rowing stroke side. But the bigger issue was his face. He had a lonesome look about him, like a child who'd had to raise himself, with large gray eyes and messy blondish hair and purplish lips, the latter of which were nearly always swollen because he tended to chew on them. His was the kind of face that some might call forgettable, a below-average composition that gave no hint of the longing or intelligence that lay behind, save for one critical feature—his teeth—which were straight and white, and which redeemed his entire facial landscape whenever he smiled. Fortunately, especially after falling in

love with Elizabeth Zott, Calvin smiled all the time.

They first met—or rather, exchanged words—on a Tuesday morning at Hastings Research Institute, the sunny Southern Californian private research lab where Calvin, having graduated from Cambridge with a PhD in record time and with forty-three employment offers to weigh, accepted a position partly because of reputation, but mostly because of precipitation. It didn't rain much in Commons. Elizabeth, on the other hand, accepted Hastings's offer because it was the only one she received.

As she stood outside Calvin Evans's lab, she noted a number of large warning signs:

DO NOT ENTER
EXPERIMENT IN PROGRESS
NO ADMITTANCE
KEEP OUT

Then she opened the door.

"Hello," she called over Frank Sinatra, who was blasting from a hi-fi that sat incongruously in the middle of the room. "I need to speak to whoever is in charge."

Calvin, surprised to hear a voice, poked his head out from behind a large centrifuge.

"*Excuse me, miss,*" he called, irritated, a large pair of goggles shielding his eyes from whatever was bubbling off to his right, "but this area is off-limits. Didn't you see the signs?"

"I *did,*" Elizabeth yelled back, ignoring his tone as she made her way across the lab to switch off the music. "There. Now we can hear each other."

Calvin chewed his lips and pointed. "You can't be in here," he said. "The *signs.*"

"Yes, well, I was told that your lab has a surplus of beakers and we're short downstairs. It's all here," she said, thrusting a piece of

paper at him. "It's been cleared by the inventory manager."

"I didn't hear anything about it," Calvin said, examining the paper. "And I'm sorry, but no. I need every beaker. Maybe I'd better speak with a chemist down there. You tell your boss to call me." He turned back to his work, flipping the hi-fi back on as he did.

Elizabeth didn't move. "You want to speak to a chemist? Someone other than ME?" she yelled over Frank.

"Yes," he answered. And then he softened slightly. "Look, I know it's not your fault, but they shouldn't send a secretary up here to do their dirty work. Now I know this might be hard for you to understand, but I'm in the middle of something important. Please. Just tell your boss to call me."

Elizabeth's eyes narrowed. She did not care for people who made assumptions based on what she felt were long-outdated visual clues, and she also didn't care for men who believed, even if she had been a secretary, that being a secretary meant she was incapable of understanding words beyond "Type this up in triplicate."

"What a coincidence," she shouted as she went straight over to a shelf and helped herself to a large box of beakers. "I'm busy too." Then she marched out.

More than three thousand people worked at Hastings Research Institute—that's why it took Calvin over a week to track her down—and when he did finally find her, she seemed not to remember him.

"Yes?" she said, turning to see who had entered her lab, a large pair of safety glasses magnifying her eyes, her hands and forearms wrapped in large rubber mitts.

"Hello," he said. "It's me."

"Me?" she asked. "Could you be more specific?" She turned back to her work.

"Me," Calvin said. "Five floors up? You took my beakers?"

“You might want to stand back behind that curtain,” she said, tossing her head to the left. “We had a little accident in here last week.”

“You’re hard to track down.”

“Do you mind?” she asked. “Now *I’m* in the middle of something important.”

He waited patiently while she finished her measurements, made notations in her book, re-examined yesterday’s test results, and went to the restroom.

“You’re still here?” she asked, coming back. “Don’t you have work to do?”

“Tons.”

“You can’t have your beakers back.”

“So, you do remember me.”

“Yes. But not fondly.”

“I came to apologize.”

“No need.”

“How about lunch?”

“No.”

“Dinner?”

“No.”

“Coffee?”

“Listen,” Elizabeth said, her large mitts resting on her hipbones, “you should know you’re starting to annoy me.”

Calvin looked away, embarrassed. “I sincerely beg your pardon,” he said. “I’ll go.”

“Was that Calvin *Evans*?” a lab tech asked as he watched Calvin weave his way through fifteen scientists working elbow to elbow in a space a quarter the size of Calvin’s private lab. “What was he doing up here?”

“Minor beaker ownership issue,” Elizabeth said.

“Beakers?” He hesitated. “Wait.” He picked up one of the new beakers. “That big box of beakers you said you found last

week. They were *his*?”

“I never said I found beakers. I said I *acquired* beakers.”

“From Calvin Evans?” he said. “Are you crazy?”

“Not technically.”

“Did he say you could take his beakers?”

“Not technically. But I had a form.”

“What form? You know you have to go through me. You know ordering supplies is my job.”

“I understand. But I’ve been waiting for more than three months. I’ve asked you four times, I’ve filled out five requisition orders, I’ve spoken to Dr. Donatti about it. Honestly, I didn’t know what else to do. My research depends on getting these supplies. *They’re just beakers.*”

The lab tech closed his eyes. “Listen,” he said, slowly reopening them as if to dramatize her stupidity. “I’ve been here a lot longer than you and I know things. You know what Calvin Evans is famous for, don’t you? Besides chemistry?”

“Yes. Having an excess of equipment.”

“No,” he said. “He’s famous for holding a grudge. A grudge!”

“Really?” she said taking interest.

Elizabeth Zott held grudges too. Except her grudges were mainly reserved for a patriarchal society founded on the idea that women were less. Less capable. Less intelligent. Less inventive. A society that believed men went to work and did important things—discovered planets, developed products, created laws—and women stayed at home and raised children. She didn’t want children—she knew this about herself—but she also knew that plenty of other women *did* want children *and* a career. And what was wrong with that? Nothing. It was exactly what men got.

She’d recently read about some country where both parents worked *and* took part in raising the children. Where was that, again? Sweden? She couldn’t remember. But the upshot was, it functioned very well. Productivity was higher; families were

stronger. She saw herself living in such a society. A place that didn't always automatically mistake her for a secretary, a place where, when she presented her findings in a meeting, she didn't have to brace herself for the men who would invariably talk over her, or worse, take credit for her work. Elizabeth shook her head. When it came to equality, 1952 was a real disappointment.

"You have to apologize to him," the lab tech was insisting. "When you take the damn beakers back, grovel. You put our entire lab at risk, and you made me look bad."

"It'll be fine," Elizabeth said. "They're beakers."

But by the next morning, the beakers were gone, replaced by dirty looks from a few of her fellow chemists who now also believed she'd put them in jeopardy of Calvin Evans's legendary grudge holding. She tried to talk with them, but each gave her the cold shoulder in their own way, and later, as she was walking by the lounge, she overheard the same few grousing about her—about how she took herself so seriously, how she thought she was better than any of them, how she'd refused dates from all of them, even the single men. And how the only way she could have possibly gotten her master's from UCLA in organic chemistry was the *hard* way—the word "hard" being accompanied by rude gestures and tight laughter. Who did she think she was anyway?

"Someone ought to put her in her place," said one.

"She's not even that smart," insisted another.

"She's a cunt," declared a familiar voice. Her boss, Donatti.

Elizabeth, accustomed to the first words but stunned by the last, pressed herself against the wall, overcome by a wave of nausea. This was the second time she'd been called that word. The first time—the first horrible time—had been at UCLA.

It had happened nearly two years ago. A master's candidate with only ten days left before graduation, she was still in the lab at nine p.m., certain she'd found a problem with the test protocol. As she tapped a freshly sharpened number-two pencil against the

paper, weighing her hunch, she heard the door open.

“Hello?” she called. She wasn’t expecting anyone.

“You’re still here,” said a voice free of surprise. Her advisor.

“Oh. Hello Dr. Meyers,” she said, looking up. “Yes. Just going over the test protocols for tomorrow. I think I found a problem.”

He opened the door a little wider, stepping inside. “I didn’t ask you to do that,” he said, his voice edgy with irritation. “I told you it was all set.”

“I know,” she said. “But I wanted to give it one last look.” The one-last-look approach wasn’t something Elizabeth liked to do—it was something she knew she *had* to do to maintain her position on Meyers’s all-male research team. Not that she really cared about his research: his was safe stuff, not at all groundbreaking. Despite a notable lack of creativity paired with an alarming absence of new discoveries, Meyers was considered one of the top DNA researchers in the United States.

Elizabeth didn’t like Meyers; no one did. Except, possibly, UCLA, who loved him because the man published more papers than anyone in the field. Meyers’s secret? He didn’t write the papers—his graduate students did. But he always took full credit for every word, sometimes only changing the title and a few phrases here and there before passing it off as an entirely different paper, which he could do because who reads a scientific paper all the way through? No one. Thus his papers grew in number, and with them, his reputation. That’s how Meyers became a top DNA researcher: quantity.

Besides his talent for superfluous papers, Meyers was also famous for being a lecher. There weren’t many women in the science departments at UCLA, but the few there were—mostly secretaries—became the focus of his unwanted attention. They usually left after six months, their confidence shaken, their eyes swollen, citing personal reasons. But Elizabeth did not leave—she couldn’t, she needed the master’s. So she endured the day-to-day degradations—the touches, the lewd comments, the rank suggestions—while making it clear she had no interest. Until

the day he called her into his office, ostensibly to talk about her admittance to his doctoral program, but instead shoving his hand up her skirt. Furious, she forcibly removed it, then threatened to report him.

“To whom?” he laughed. Then he admonished her for being “no fun” and swatted her bottom, demanding that she go fetch his coat from his office closet, knowing that when she opened the door she would find it lined with pictures of topless women, a few splayed, expressionless, on their hands and knees, a man’s shoe resting triumphantly on their backs.

“It’s here,” she said to Dr. Meyers. “Step ninety-one on page two thirty-two. The temperature. I’m fairly certain it’s too high, which means the enzyme will be rendered inactive, skewing the results.”

Dr. Meyers watched her from the door. “Did you show this to anyone else?”

“No,” she said. “I just noticed it.”

“So, you haven’t talked with Phillip.” Phillip was Meyers’s top research assistant.

“No,” she said. “He just left. I’m sure I could still catch him—”

“No need,” he interrupted. “Is anyone else here?”

“Not that I know of.”

“The protocol is right,” he said sharply. “You’re not the expert. Stop questioning my authority. And don’t mention this to anyone else. Do you understand?”

“I was only trying to help, Dr. Meyers.”

He looked at her, as if weighing the veracity of her offer. “And I need your help,” he said. And then he turned back toward the door and locked it.

His first blow was an open-handed slap that spun her head to the left like a well-hit tetherball. She gasped in shock, then managed

to right herself, her mouth bleeding, her eyes wide with disbelief. He grimaced as if unsatisfied with his results, then hit her again, this time knocking her off the stool. Meyers was a big man—nearly 250 pounds—his strength a product of density, not fitness. He bent down to where she lay on the floor and, grabbing her by the hips, hoisted her up like a crane lifting a sloppy load of lumber, plunking her back down on the stool like a rag doll. Then he flipped her over, and kicking the stool away, slammed her face and chest against the stainless-steel counter. “Hold still, cunt,” he demanded as she struggled, his fat fingers clawing beneath her skirt.

Elizabeth gasped, the taste of metal filling her mouth as he mauled her, one hand pulling her skirt up past her waist, the other twisting the skin of her inner thighs. With her face flat against the table, she could barely breathe, let alone scream. She kicked back furiously like an animal caught in a trap, but her refusal to concede only infuriated him more.

“Don’t fight me,” he warned, as sweat dripped from his stomach onto the backs of her thighs. But as he moved, her arm regained freedom. “Hold *still*,” he demanded, enraged, as she twisted back and forth, gasping in shock, his bulbous torso flattening her body like a pancake. In a final effort to remind her who was in charge he gripped her hair and yanked. Then he shoved himself inside her like a sloppy drunk, moaning with satisfaction until it was cut short by a shriek of pain.

“Fuck!” Meyers yelled, pulling his weight from her. “Jesus, fuck! What was that?” He shoved her away, confused by a blaze of misery springing from the right side of his body. He looked down at his blubbery waist, trying to make sense of the pain, but all he saw was a small pink eraser sticking out from his right iliac region. It was encircled by a narrow moat of blood.

The number-two pencil. With her free hand, Elizabeth had found it, gripped it, and driven it straight into his side. Not just part of it—all of it. Its sharply pointed lead, its friendly yellow wood, its shiny gold band—all seven inches of it versus all seven

inches of him. And in doing so, she pierced not only his large and small intestine, but her academic career as well.

“Do you *really* go here?” the campus police officer said after an ambulance had taken Dr. Meyers away. “I need to see some student ID.”

Elizabeth, her clothes torn, her hands shaking, a large bruise beginning to bloom on her forehead, looked back, incredulous.

“It’s a valid question,” the officer said. “What would a woman be doing in a lab this time of night?”

“I’m a gr-graduate student,” she stuttered, feeling like she might be sick. “In chemistry.”

The officer exhaled as if he didn’t have time for this sort of nonsense, then took out a small notepad. “Why don’t you tell me what you *think* happened.”

Elizabeth supplied him with the details, her voice dulled by shock. He looked as if he was jotting it down, but when he turned away to tell another officer he “had it all under control,” she noticed that the notepad was blank.

“Please. I . . . I need a doctor.”

He flipped his notepad shut. “Would you like to make a statement of regret?” Then he gave her skirt a glance as if the fabric alone was an obvious invitation. “You stabbed the man. It’ll go better for you if you show some remorse.”

She looked back at him, hollow eyed. “You . . . you misunderstand officer. He attacked me. I . . . I defended myself. I need a doctor.”

The officer exhaled. “No statement of regret, then?” he said, clicking his pen shut.

She stared at him, her mouth slightly open, her body trembling. She looked down at her thigh where Meyers’s handprint was outlined in a light purple. She choked back the urge to vomit.

She looked up in time to see him checking his watch. That small movement was all it took. She reached out and snatched her

ID card back from between his fingers. “Yes, Officer,” she said, her voice as taut as prison wire. “Now that I think about it, I do have one regret.”

“Much better,” he said. “Now we’re getting somewhere.” He clicked his pen back open. “Let’s hear it.”

“Pencils,” she said.

“Pencils,” he repeated, writing it down.

She raised her head to meet his eyes, a rivulet of blood coursing from her temple. “I regret not having more of them.”

The attack, or “unfortunate event,” as the admissions committee called it just before they formally rescinded her admittance to the doctoral program, had been her doing. Dr. Meyers had caught her cheating. She’d tried to change a test protocol to skew the experiment’s results—he had the proof right here—and when he’d confronted her, she’d thrown herself at him, offering sex. When that didn’t work, a physical fight ensued and before he knew it, he had a pencil in his gut. He was lucky to be alive.

Almost no one bought this story. Dr. Meyers had a reputation. But he was also important, and UCLA had no intention of losing someone of his stature. Elizabeth was out. Her master’s was complete. Her bruises would heal. Someone would write her a recommendation. Go.

That’s how she’d ended up at Hastings Research Institute. And now here she was, outside the Hastings lounge, her back pressed against a wall, sick to her stomach.

She looked up to find the lab tech peering at her. “You all right, Zott?” he asked. “You look kind of funny.”

She didn’t reply.

“My fault, Zott,” he admitted. “I shouldn’t have made such a big deal about the beakers. As for them,” he said tipping his head toward lounge—it was clear he’d overheard the conversation—

“they’re just being fellas. Ignore ’em.”

But she couldn’t ignore them. In fact, the very next day, her boss, Dr. Donatti—the one who’d called her a cunt—reassigned her to a new project. “It’ll be a lot easier,” he said. “More your intellectual speed.”

“Why, Dr. Donatti?” she asked. “Was there something wrong with my work?” She’d been the driving force behind her current group research project and as a result, they were close to publishing results. But Donatti pointed to the door. The next day, she was assigned to a low-level amino acid study.

The lab tech, noting her growing dissatisfaction, asked her why she wanted to be a scientist anyway.

“I don’t want to be a scientist,” she snapped. “I *am* a scientist!” And in her mind, she was not going to let some fat man at UCLA, or her boss, or a handful of small-minded colleagues keep her from achieving her goals. She’d faced tough things before. She would weather what came.

But weathering is called weathering for a reason: it erodes. As the months went by, her fortitude was tested again and again. The only thing that gave her any respite at all was the theater, and even that sometimes disappointed.

It was a Saturday night, about two weeks after the beaker incident. She’d bought a ticket to *The Mikado*, a supposedly funny operetta. Although she had long looked forward to it, as the story unfolded, she realized she didn’t find it funny at all. The lyrics were racist, the actors were white, and it was blatantly obvious that the female lead was going to be blamed for everyone else’s misdeeds. The whole thing reminded her of work. She decided to cut her losses and leave at intermission.

As luck would have it, Calvin Evans was also there that night, and had he been able to pay attention, he might have shared all Elizabeth’s opinions. But instead he was on a first date with a secretary from the Biology Division, *and* he was sick to his stomach.

The former was a mistake: the secretary had asked him to the operetta only because she believed his fame meant he was rich, and he, reacting to her eye-watering perfume, had blinked several times, which she thought meant “I’d love to.”

The queasiness started in act 1, but by the end of act 2, it had escalated to a roiling boil. “I’m sorry,” he whispered, “but I don’t feel well. I’m leaving.”

“What do you mean?” she said suspiciously. “You look fine to me.”

“Sick to my stomach,” he murmured.

“Well, excuse me, but I bought this dress special for tonight,” she said, “and I’m not leaving till I’ve worn it the full four hours.”

Calvin thrust some cab money in the general direction of her astonished face, then rushed himself out to the lobby, one hand on his abdomen as he headed straight toward the bathroom, careful not to jounce his hair-trigger stomach.

As luck would *also* have it, Elizabeth had reached the lobby at the same moment, and like Calvin, she too was making her way to the bathroom. But when she saw the long line, she whirled away in frustration, and in doing so, slammed directly into Calvin, who instantly vomited on her.

“Oh god,” he said, between retches, “oh Jesus.”

Stunned at first, Elizabeth gathered herself and, ignoring the mess he’d just made of her dress, put a comforting hand on the bent torso. “This man is sick,” Elizabeth called to the bathroom line, not yet realizing who it was. “Could someone call a doctor?”

But no one did. All the theater bathroom goers, reacting to the stench and the sound of violent illness, vacated the area immediately.

“Oh my god,” Calvin said over and over again, holding his stomach, “*oh my god.*”

“I’ll get you a paper towel,” Elizabeth said gently. “And a cab.” And then she took a good look at his face and said, “Say, don’t I know you?”

. . .

Twenty minutes later, she was helping him into his house. “I think we can rule out the aerosol dispersion of diphenylaminearsine,” she said. “Since no one else was affected.”

“Chemical warfare?” he gasped, holding his stomach. “I hope so.”

“It was probably just something you ate,” she said. “Food poisoning.”

“Oh,” he moaned. “I’m so embarrassed. I’m *so* sorry. Your dress. I’ll pay for the cleaning.”

“It’s fine,” she said. “It’s only a splatter.” She helped him onto his sofa, where he collapsed into a large heap.

“I . . . I can’t remember the last time I vomited. Much less in *public*.”

“It happens.”

“I was on a date,” he said. “Can you imagine? I left her there.”

“No,” she said, trying to remember the last time she’d even had a date.

They were silent for a few minutes, then he closed his eyes. She took this as her cue to leave.

“Again, so sorry,” he whispered, as he heard her make her way to the door.

“Please. There’s no need to apologize. It was a reaction, a chemical incompatibility. We’re scientists. We understand these things.”

“No, no,” he said weakly, wanting to clarify. “I mean about assuming you were a secretary that day—about telling you to have your boss call me,” he said. “I am so *sorry*.”

To this she had no response.

“We’ve never been formally introduced,” he said. “I’m Calvin Evans.”

“Elizabeth Zott,” she answered, gathering her things.

“Well, Elizabeth Zott,” he said, managing a small smile, “you’re a lifesaver.”

But it was clear she hadn't heard.

"My DNA research focused on polyphosphoric acids as condensing agents," she told Calvin over coffee in the cafeteria the following week. "And it's been going well up until now. As of last month, I've been reassigned. To an amino acid study."

"But why?"

"Donatti—don't you work for him, too? Anyway, he decided my work was unnecessary."

"But condensing agent research is critical to further understanding of DNA—"

"Yes, I know, I *know*," she agreed. "It was what I'd planned to pursue in my doctorate. Although what I'm really interested in is abiogenesis."

"Abiogenesis? The theory that life arose from simplistic, non-life forms? Fascinating. But you're not a PhD."

"No."

"But abiogenesis is PhD territory."

"I have a master's in chemistry. From UCLA."

"Academia," he nodded sympathetically. "It got old. You wanted out."

"Not exactly."

A long moment of uncomfortable silence followed.

"Look," she started up again, taking a deep breath, "my hypothesis of polyphosphoric acids is as follows."

Before she knew it, she'd talked to him for more than an hour, Calvin nodding as he made notes, occasionally interrupting with elaborate questions, which she easily fielded.

"I would be further," she said, "but as I mentioned, I was 'reallocated.' And before that, getting the basic supplies to continue my real work proved nearly impossible." That's why, she explained, she'd been reduced to stealing equipment and supplies from other labs.

"But why was it so hard to get supplies?" Calvin asked. "Hast-

ings has plenty of money.”

Elizabeth looked at him as if he'd just asked how, with all those rice paddies, there could possibly be starving children in China. “Sex discrimination,” she answered, taking the number-two pencil she always wore either behind her ear or in her hair and tapping it with emphasis on the table. “But also, politics, favoritism, inequality, and general unfairness.”

He chewed on his lips.

“But mostly sex discrimination,” she said.

“What sex discrimination?” he asked innocently. “Why wouldn't we want women in science? That makes no sense. We need all the scientists we can get.”

Elizabeth looked at him, astonished. She had been under the impression that Calvin Evans was a smart man, but now she realized he was one of those people who might only be smart in one narrow way. She studied him more closely, as if assessing what it might take to get through. Gathering her hair in both hands, she wound it twice before placing it in a knot on top of her head and securing it with her pencil. “When you were at Cambridge,” she said carefully, placing her hands back on the table, “how many women scientists did you know?”

“None. But my college was all-male.”

“Oh, I see,” she said. “But surely, women had the same opportunities elsewhere, correct? So how many women scientists do you know? Do not say Madame Curie.”

He looked back at her, sensing trouble.

“The problem, Calvin,” she asserted, “is that half the population is being wasted. It's not just that I can't get the supplies I need to complete my work, it's that women can't get the education they need to do what *they're* meant to do. And even if they do attend college, it will never be a place like Cambridge. Which means they won't be offered the same opportunities nor afforded the same respect. They'll start at the bottom and stay there. Don't even get me started on pay. And all because they didn't attend a school that wouldn't admit them in the first place.”

“You’re saying,” he said slowly, “that more women actually want to be in science.”

She widened her eyes. “*Of course we do.* In science, in medicine, in business, in music, in math. Pick an area.” And then she paused, because the truth was, she’d only known a handful of women who’d wanted to be in science or any other area for that matter. Most of the women she’d met in college claimed they were only there to get their MRS. It was disconcerting, as if they’d all drunk something that had rendered them temporarily insane.

“But instead,” she continued, “women are at home, making babies and cleaning rugs. It’s legalized slavery. Even the women who wish to be homemakers find their work completely misunderstood. Men seem to think the average mother of five’s biggest decision of the day is what color to paint her nails.”

Calvin pictured five children and shuddered.

“About your work,” he said, trying to redirect the battle. “I think I can fix it.”

“I don’t need you to fix anything,” she said. “I’m perfectly capable of fixing my own situation.”

“No, you’re not.”

“Excuse me?”

“You can’t fix it because the world doesn’t work that way. Life isn’t fair.”

This infuriated her—that *he* would tell *her* about unfairness. He wouldn’t know the first thing about it. She started to say something, but he cut her off.

“Look,” he said, “life has never been fair, and yet you continue to operate as if it is—as if once you get a few wrongs straightened out, everything else will fall into place. They won’t. You want my advice?” And before she could say no, he added, “Don’t work the system. Outsmart it.”

She sat silently, weighing his words. They made annoying sense in a terribly unfair way.

“Now here’s a lucky coincidence: I’ve been trying to rethink

polyphosphoric acids for the last year and I'm getting nowhere. Your research could change that. If I tell Donatti I need to work with your findings, you'll be back on it tomorrow. And even if I didn't need your work—which I do—I owe you. Once for the secretarial remark, and again for the vomit.”

Elizabeth continued to sit silently. Against her better judgment, she felt herself warming to the idea. She didn't want to: she didn't like the notion that systems had to be outsmarted. Why couldn't they just be smart in the first place? And she certainly didn't like favors. Favors smacked of cheating. And yet she had goals, and dammit, why should she just sit by? Sitting by never got anyone anywhere.

“Look,” she said pointedly, as she brushed a strand of hair off her face. “I hope you won't think I'm jumping to conclusions, but I've had trouble in the past and I want to be clear: I'm not dating you. This is work, nothing more. I am not interested in a relationship of any kind.”

“Nor am I,” he insisted. “This is work. That's it.”

“That's it.”

And then they gathered their cups and saucers and went off in opposite directions, each desperately hoping the other didn't mean it.