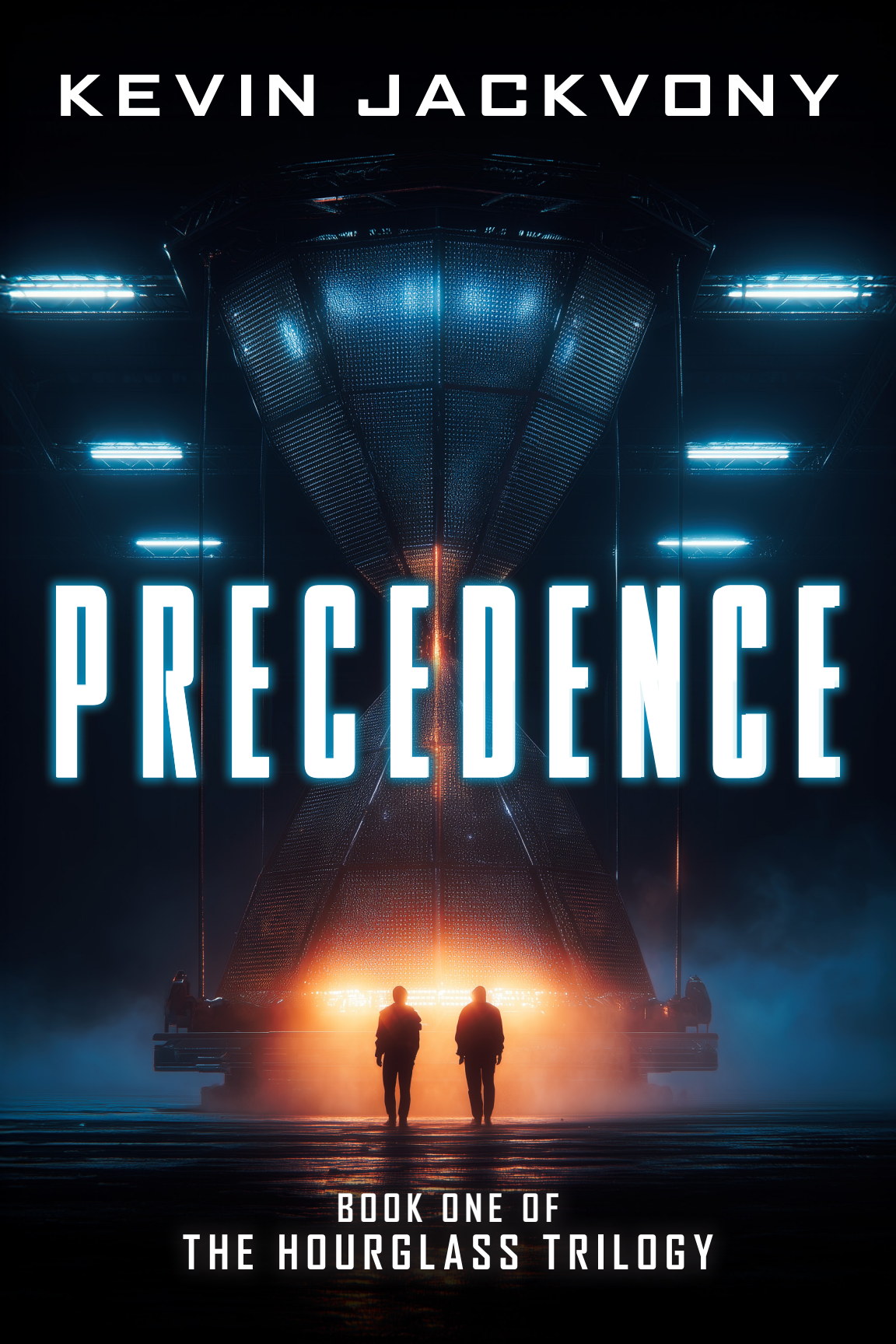


KEVIN JACKVONY



PRECEDENCE

BOOK ONE OF
THE HOURGLASS TRILOGY

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THE HOURGLASS TRILOGY**

by Kevin Jackvony

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For Dolcezza

PROLOGUE

Ben Kwong was lying flat on his back, the molded plastic of the mechanic's creeper the only thing protecting him from the concrete floor of the old Cromwell Tool & Die in Cambridge that was now home to Chashmal Energy Technologies. It was cramped, hot, and bright, and the poorly circulating air was stale and left a dull, metallic taste in his mouth. He was staring up at the underneath of the cylindrically shaped, refrigerator-sized device that was the culmination of years of dedication to little else. It was a machine that could change the world. His eyes were weary from the careful work, but it had to be done. Every sensor in the machine needed to be checked for position and confirmed to be working. The first four system checks had revealed dozens of faulty sensors.

"Check?" yelled Ben, tilting his head in a futile effort to see his partner, David.

"Sensors two fifty through two seventy-five are functioning now, let's move on," David said with an edge to his voice as he glanced down at the green indicators on his laptop screen.

Ben rolled his eyes at David's impatience, and snapped back, "You're more than welcome to climb under here and check the sensors yourself if I'm not going fast enough for you, Big D."

"Ugh, don't call me that, and no, I'm fine up here on system check. Keep going, Ben."

"Big D" was David Kaplan's most hated nickname, not that he had many others. Everyone knew he preferred to be called David. Not Dave, not Doctor Dave, not Kap, and especially not Big D. Ben had been calling him that since the first few weeks of freshman year, when random circumstance had made them roommates at MIT, and the closest of friends, back in the day.

David had never assigned Ben a nickname, to no one's surprise.

"Well, so long as you're comfortable, that's all that matters," Ben said, feigning annoyance.

Ben didn't really mind the work. He was, at heart, an engineer and a tinkerer, and he enjoyed getting elbow-deep in his creations. As a kid back in California, Ben had spent countless hours under the hoods of various classic

cars with his father, who, after arriving in the United States from Hong Kong as a young man, had worked as a mechanic to put himself through college. His father's love of working with his hands persisted long after he got a desk job. Ben was often at his father's side as he passed along his skill and love of the work. As a result, Ben could strip down and rebuild the engine of their lawn mower by the time he was nine.

Ben was born and raised in the San Diego area, and his actual name was Ben, which surprised most people. Sure, many Chinese people, and people of various other ethnicities, would pick an "American" name to use with their Western associates, either out of convenience or as a subtle testament to the ignorance and inability of Americans to properly pronounce the traditional names of people from other backgrounds. But Ben's parents had embraced the country and culture of the United States from nearly the moment they'd arrived here in the seventies. Indeed, Ben's home life was largely indistinguishable from that of anyone else living in the suburbs of San Diego. But that was one of the beauties of American society. Ultimately, Ben's ethnicity was interesting but incidental, just as it was for the Garcias and McMillans who'd lived on either side of him.

The machine, which they'd named Mabel 2, was a metric ton of fused, silica-coated copper-beryllium tubing, which made up most of its heft. The circle of eight free-electron lasers that powered the reaction also contributed to its weight. It sat on floor braces that had been sunk into the concrete for stability. Because it sat so close to the floor, it left little room for Ben to work underneath it. His awkward position, coupled with the sweat constantly forming on his brow, made this already tedious task that much harder to conduct with the thorough, dispassionate, methodical ardor required to get it right.

Ben pushed through the distractions and worked his way through the final dozen or so sensor connections. The sensors would measure everything from temperature to electrical impedance to the strength of the vacuum being pulled within the device. This instrument was the second iteration of Ben and David's technology, but with their funding running out and no data to prove their process worked, it could very well be the last.

Their new company had sprung forth from the physics labs of MIT, where they both had spent the better part of the last decade. They named their company Chashmal Energy Technologies after the obscure and rarely used Hebrew word for *electricity*. Ben joked that the next company they started would have to have a Chinese name to honor *his* ancestors. They had moved their operation from MIT to this old brick building the better part of a year ago, thanks to a nice half-mil award from the state of Massachusetts

for young entrepreneurs. Most of that money went toward creating the devices themselves; after all, free-electron lasers weren't cheap. Some of the money went to pay the handful of people whose help they needed to get the instrument assembled and tested. David and Ben didn't scrimp when hiring talent, but they were severely underpaying them, holding out the promise of lucrative full-time jobs and equity in this "next big thing" to come out of a town where big discoveries were almost redundant.

The remainder of the money went to Ben, who had a family to support. He and his wife, Mai Lin, had two children, and while Mai Lin had a part-time job translating technical documents into Chinese for various high-tech companies selling their wares to China, that work was sporadic at best. With that being the situation, he and David decided Ben would be the only full-time paid employee of the outfit. David did get the honor of living here in the building, as they'd converted the office on the second floor into a living space for him and the bathroom on the first floor already had a shower in it. "Convert" was probably a strong word, Ben decided, as all they really did was throw a bed, table, and couch into the space. But this was the best solution, as David hardly ever left the building anyway. His habit of working with no concept of time was a practice from his undergraduate days that had never waned. Ben was happy David did get out on a semi-regular basis to teach a class or to spend time with his girlfriend, Naomi. Naomi was supportive of David, patient with his quirky genius, and always there to cheer him on in his success and give him room to devote to his trips down some physics rabbit hole. But as tolerant as she was of the time and energy he devoted to his esoteric science pursuits, she was never shy to challenge him when he seemed to be walling himself off from the world with his technical flights of fancy. Ben thought Naomi was a keeper!

"I think I'm done, David. Is the board all green?"

"Hey, it is indeed, Ben!" David said with measured enthusiasm.

Ben slid out from underneath the device.

"Take a break, relax, and grab something to drink while I hook up the rest of the machine!" offered David.

"Yessir! You don't have to tell me twice. My back is killing me now; we are not as young as we used to be," Ben said as he began to stretch the kinks from his sore back while David shrugged and nodded in mild agreement. "Be careful with the power couplings, David; it would be a shame if you fried the thing right before testing."

"When am I anything other than overly cautious, Ben?"

This was true and, of course, part of the reason why Ben had said it in the first place. David was careful, thorough, and risk averse to a fault. Even

in his anxious state to get Mabel 2 up and running on its inaugural trial, David would not let his emotions or nerves prevent him from being exacting in his tasks. But Ben knew David was as excited as an eight-year-old on their birthday waiting for the chance to open their presents.

Ben felt that way as well, but it manifested itself differently. He was less impatient and more distracted, thinking about what this could mean for the future. Would this moment, the first true test of this new technology, be as momentous as the Wright brothers' first flight at Kitty Hawk, or the first telephone call? It occurred to Ben that Alexander Graham Bell had made that call not too far from where he was making his tea right at that moment. He imagined a plaque on the front of the building memorializing this day and time—or perhaps the entire building would become a museum. This could be *that big*, Ben reminded himself: the moment when energy became cheap, clean, and safe to produce. The Quantum Energy Generation, or QEG, as they came to call the technology, would produce energy in an entirely unique way. It would pull electrons from a quantum state and store them in a state of ordinary matter. It would do so without radiation or pollution, and with little to no danger of overloading, catching fire, exploding, or some such horrible disaster. It wasn't perfect; nothing ever is. Ben was disappointed that the commercial form of the technology would be way too massive for all but the biggest of individual buildings. That meant the technology would still require a centralized generation plant. And he would never drive a car with a QEG engine, or see his home have one of the devices in the basement next to the hot water heater to supply him with his own personal source of power. Nonetheless, his and David's technology would be far more reliable than wind power, take up infinitesimally less square footage than a solar farm, and be more universally adaptable than hydroelectric plants. Unlike nuclear power plants, this technology would be less prone to scaremongering among the handwringing crowd. It would fulfill the promise that everyone had pinned on the hope of fusion-generated energy.

Ben sat on a creaky metal stool next to the ancient laminate counter with the electric tea kettle and espresso maker and watched as David hooked up the power supply wires, liquid nitrogen tubing, and hoses for pulling the vacuum to the machine. Looking around, he could very easily picture this building as a museum. It already had a dusty, historical feel to it. The original wood-and-brick building was built in the 1880s. In every decade since then, the building was expanded and renovated. The two-story steel-framed part of the building was added in the 1920s. The counter Ben was leaning on was clearly added in the 1950s, as evidenced by the Google-style pattern of boomerangs and starbursts on its surface. After the building ceased operating as

a machine shop in the 1970s, it housed an artists' co-op. The artists certainly added to its style with various indelible splatters of paint on the floor and a mural of a dragon flying over the Boston skyline plastered onto the exposed brick on a large side wall directly across from where he was sitting. If this test of their technology worked, Ben knew they'd quickly need more room than the old building could offer. He'd miss this space because of its uniqueness and its connection to the history of the city.

David looked over at pondering Ben and shouted, "I'm done, let's run the final check and get to showtime!"

David's proclamation instantly brought Ben back to the present; he sprang off his perch and quickly made his way over to David. "Let's fire up our baby!"

Off to the side of the building was a modest brick room with large windows overlooking the main work floor. They suspected it was once an office that allowed a manager or foreman to oversee the hustle and bustle of the machinists and workers while they did, well, whatever it was they worked on all day. Now it was Ben and David's control center, housing all of their computers and offering them the advantage of being able to see their device without physically being in the same room with it. The machine could potentially give off a strong magnetic pulse, so the brick, as well as the copper mesh they'd put on the windows and walls, protected them and their electronics.

With all their computers safely tucked in the room with them, they started up the desktop computer that served as Mabel 2's control system. After the few moments of obligatory operating system load, David did the honors of hitting the virtual start button for the program designed to run the device. The "button" was the size of a playing card on the huge TV in front of David, making the pressing of it seem even more dramatic and ceremonial. This TV was one of two that they used as monitors for the system.

"The lasers are powering up," Ben said as he watched the dozen various bar charts and graphs jump to life on the screen. "Seventy percent...eighty... electrical use is at 225 watts per minute and climbing, magnetic field is approaching two teslas." Ben was now fully immersed in his science; there was no moment outside the one he was in, and there was no world outside his laboratory workshop. "Lasers are ready to go, magnetic field is at range, we are ready to start the pulse."

The intention was to run the instrument for the next 120 seconds and compare energy output to energy usage during that time. Their goal with this experiment was for the machine to generate and collect more power than the lasers poured into it. Of course, it would not account for the energy required to create and sustain the magnetic field, or the dozen other things that used

up electricity to get the device operational. The ultimate goal would be that, with continuous operation, the technology would collect enough power to overcome all the up-front electricity usage, leading to a net gain.

Ben leaned forward in his chair and began watching the power input/output graphs like a hawk on the monitor in front of him. David tapped some notes into an open text box, recording his observations about some of the other parameters of the process such as temperature fluctuation and magnetic field variances.

“We are losing a bit of energy to heat production,” David said in a clinical tone. In order for the instrument to remain as efficient as possible, any energy created had to stay in the form of collectable electricity. Increased heat meant that process was less than optimal. Just like an incandescent lightbulb is less effective at producing light than an LED bulb because it throws away some of its energy to heat, they needed to ensure that the design wouldn’t reduce their machine to being, in essence, the world’s most expensive space heater.

“The temps are rising only in the central cylinder, David; we may need to increase its aperture to compensate for the volume of electrons traveling through it. That’s easy enough to do,” Ben commented after glancing over at the screen in front of David.

“We’re sixty-five seconds in,” David stated. “Is the energy output where you expected it to be?”

Ben paused, moved even closer to the screen, and narrowed his left eye, which gave him the facial expression of someone either confused or experiencing intestinal discomfort. “Maybe?”

“What do you mean, maybe? Eighty seconds in, forty to go.”

Ben held up his finger in the universal gesture of “give me a moment.” His eyes were darting between the still-growing graphs in front of him. The top of both screens actually had, in big, bold numbers, the exact input of energy from the lasers to the system, with another number, currently in red, indicating the current output of the system. David could see that the output number was rising a bit quicker than the input number, which was a good sign with thirty-two seconds still left in the run.

“Ben?”

The output number changed from red to green. David’s eyebrows jumped to the top of his forehead as he threw his hands in the air.

“Ben!” David yelled as if he were on the other side of the room.

“Dude, I’m right here! And holy shit, I think our baby is doing it! But give me a second, something is just friggin’ strange in these energy curves,” Ben yelled back at a slightly lower decibel. He was clapping David’s shoulder now,

as the excitement that they had just made a major scientific breakthrough continued to build.

“Got it!” David screamed as the green output number continued to grow. He stood up and kicked his chair away. “Ten seconds left, nine...eight...seven...six, we did it, Ben, look! Look at the output: we’ve cleared forty-two, forty-three, forty-three-point-two-six watts. It worked! We made electricity!”

Ben was now standing as well, and both men were clasping each other, patting the other’s shoulders and awkwardly jumping up and down in the most asynchronous fashion possible.

“David! Forty-three-point-two-six watts! Un-freaking-believable! You theorized, what, ten watts a minute with this configuration? We quadrupled that and then some!” Ben exclaimed as he finished his eureka dance.

David grabbed two pints of a nice, hoppy IPA from the small cooler on the floor. He handed one to Ben, and they cracked them open. They backed away from the computers controlling their sensitive scientific equipment and clanked the cans together, sloshing beer and foam on themselves and the floor. They both drank deeply at their success.

David turned back to the computer and tapped Ben’s shoulder.

“What were you examining so intently during the run, Ben? You had me worried we were going to blow up the building or open a portal to a hell dimension.” David was now studying the data himself.

“The curves are asynchronous, David,” Ben began to explain. “Look at the input/output curves. They look as expected, right? The output from the instrument slowly gains momentum as the electrons in the outer spiral vac tube begin to collect—no surprises there. But if you look at the two graphs for the inner vacuum bottle and the outer spiral, something strange appears in the comparison. The power curve fluctuations are not synced up. They are off by...”—Ben began to enter a calculation in a formula box he’d opened on the screen—“...thirteen seconds! Super weird. That is a big gap, bigger than we would expect.”

“Eh, so the electrons in the outer spiral lagged the electrons in the center bottle. They had longer to travel, so that is not that crazy. I mean, that is way longer than we would have calculated, but let’s look at all the data. I’m sure we will figure out why the gap is that big,” David said with the calm, cheery demeanor of someone who’d just become a modern-day Edison.

Ben shook his head and repeatedly jabbed his finger into the screen. “No, wait, it is stranger than that—the spiral graph didn’t lag. It actually preceded the energy flux signature of the center bottle by thirteen seconds. How the hell could the longer, presumably slower channel anticipate the exact fluctuations of the other channel before they happened? It doesn’t make sense!”

David peered intently at the graphs and rubbed the knuckles on his right hand across his chin as his eyebrows moved back into their normal furrowed position. “Well, the electrons in the spiral are the ones from the quantum state, so we have no clear idea of where they appear from.” David grabbed his chair a few steps away and sat down. Ben watched David and could sense the wheels of his mind turning; he had seen that look many times before, including when he’d first proposed the concept for this technology during their freshman year at MIT.

David looked up at Ben, a small, whimsical smile forming on his face. “I have a theory as to what is happening here. It is a bit out there. We are going to have to run a few more experiments to confirm it.”

CHAPTER 1

THE VANITY

David wiped his palm across the expansive mirror hanging over the bathroom sinks, turning the field of tiny, uniform water droplets into a series of streaky, drippy lines of larger water drops.

“In this brand-new condo, you’d think the bathroom fan would be more efficient at extracting the moisture from the air so it doesn’t condense on the mirror and every other surface!” David said in frustration. “Or that at least they would have stuck a heating element behind the mirror to prevent the moisture in the air from condensing on it. I mean, every car side mirror can do that, so why can’t bathroom mirrors?”

“I can’t hear you from in there with the fan running. Are you talking to me or yourself?” Naomi’s voice echoed in through the half-closed door.

“I’m talking to nobody, I suppose. I’m just speaking my thoughts out loud,” David yelled, then conceded that if Naomi couldn’t understand what he’d said before, she probably wouldn’t understand what he’d just said either. David looked up at the ceiling and contemplated a fix to the problem while wiping additional streaks on the mirror. *Was there a way to direct the airflow across the mirror and up to the fan with a series of vanes? Would that even matter if it just caused additional water vapor to pass across the mirror?*

Like a true engineer, David would often spend time thinking of some fix to the various problems facing human existence in a complex world. But he wasn’t, strictly speaking, a professional engineer. His undergraduate degree was in optical engineering, or more specifically, mechanical engineering with a concentration in optics. Since then, it had been physics all the way through to his doctorate. David loved the strange theoretical side of physics, but no matter how many cosmological concepts he studied, devised experiments for, and argued into the wee hours of the night with his fellow physics geeks, something constantly pulled him back to the practical side of his discipline. That something was almost always Ben. Ben’s experience in school was markedly different from David’s; he didn’t have the time or patience for high-concept physics that bordered on being more like philosophy than hard

science. Between his junior and senior years, Ben married Mai, at the age of twenty-one. In graduate school, he and Mai had already had a child; by the time they started the company, he had two children, a mortgage, and in-laws living with him. This was not a man who was interested in devoting time to solving matter-antimatter symmetry. The more David got pulled into Ben's projects, the more he realized he was better off in the real world over the abstract one of cosmology. David was grateful to Ben for this revelation, as those stuck in that academic world of theoretical intellectual pursuits often ended up with no life outside of it. David's life now included a very real and incredibly amazing and beautiful woman, largely thanks to Ben's anchoring him to the tangible world.

David squeegeed the mirror with the side of his right hand one more time and sighed. The moistened mirror in their condo's bathroom was only an occasional inconvenience for David anyway. In the last few years, the company he helped found had outgrown its building in Cambridge. With the influx of venture capital, he and Ben were able to purchase a large facility in New Hampshire to be the company's new home. Since the relocation of Chashmal Energy Technologies to New Hampshire, David usually stayed at the house he and Naomi bought in Lexington, which, like all their property and finances, was in a trust they controlled together. Often, he'd just crash in his office, which allowed him to work late hours without the worry of driving home afterward.

Prompted by the muffled something that she partially heard David saying, Naomi swung the bathroom door open the rest of the way and took one step inside. "You are just procrastinating, Ace!" Naomi exclaimed with some cheekiness in her voice. "You just don't want to go to your own engagement party!"

"It's true, I don't."

David turned from the mirror to see his future wife looking as beautiful as he had ever seen her. She was all ready to leave, of course, with perhaps a touch-up of her hair or an earring change to go. She was wearing a new dress; he was sure it had to be new, because he'd have remembered if he'd seen her in it before. It was knee length, black with gray accents, and formfitting enough to accentuate her curves without making her look like a skank. A slightly scooped top gave a hint of cleavage, without giving away the whole show. Naomi wore it like a woman who knew she looked good in it.

"Wow, you look awesome, I mean, really, *wow!*" he gushed. "What did I do to deserve such a smart, accomplished, and incredibly gorgeous woman like you?"

“Nothing, you just lucked the hell out!” Naomi said with a smile. “Now get dressed, and don’t make us late.”

David smiled back and continued to procrastinate. He stared out the floor-to-ceiling windows that faced the Charles River. To his left he could see Boston Harbor beyond the Museum of Science straddling the width of the river. Straight on was the city of Boston itself, the golden dome of the statehouse reflecting the last remaining minutes of natural light. To his right he could see the light towers for Fenway Park sticking up from behind the field of brick-and-stone buildings in Kenmore Square. For some reason, the field lights were on, despite the Red Sox’s baseball season having ended in last-place misery a few days before. It made the stadium easy to pick out among the jumble of buildings in the dwindling daylight. This was an incredible view, perhaps one of the best in the whole Boston area. Sure, the dwellings on the east side of the building had better sunrises and a fantastic view of the Bunker Hill Monument, David conceded to himself. But this view, the style and substance of the condo, its amazing location, and the fact that it wasn’t the size of a shoebox always made him marvel. With Naomi being a lawyer and he an engineer, they were not exactly hurting for money under usual circumstances. Even so, this place would normally have been way out of their reach financially. That was, until he and Ben accidentally invented the means to collect information from the future.

David found himself in front of the now-streaky but mostly clear mirror with his electric razor in hand, plowing away at the sides of his face. He had been so lost in internal thought that, without noticing, he’d apparently grabbed his razor and was now halfway through shaving his face with it. David wondered how many times the substructure of his thought process led him around. He often found himself leaving work, getting lost in some idea, and pulling into his driveway in Lexington forty-five minutes later with no recollection of the drive itself. *Probably not the best way to commute!* he reminded himself.

Being thorough and meticulous, David preferred the smooth feel of his face using the wet method. But since his brain was usually on to other things, he figured that not devoting all his attention to sliding super-sharp steel blades across his neck was a bad idea. Especially today. In less than an hour, he’d be sitting at a table with a half dozen people, most in on the secret, all drinking, all depressing the parts of themselves that should know better. Tongues loosened by alcohol and familiarity was a combination that could lead to Naomi’s unwitting ignorance being revealed to her. He should have fessed up to Naomi a long time ago. *It has been years, you coward,* he chided himself as his autopilot put the finishing touches on his shave.

What sort of colossally tone-deaf, cowardly idiot would not tell the woman he would spend the rest of his life with the source of their incredible financial good fortune? David had let it go too long, and now, fresh on the heels of their engagement, he had no more runway left to find an easy way to reveal it to her. Sitting on his personal laptop were at least fourteen different versions of a letter he had started that would explain it all to Naomi. Letter writing was his preferred method of conveying his complex thoughts involving emotions. It was important to him that his position on such topics was crystal clear and focused. Discussing such matters with Naomi always led him on tangents and down lines of questioning he considered irrelevant to whatever point he was trying to convey. By typing out a thorough letter, printing it, handing it to her, and letting her read it while he made himself available to answer questions, David felt he at least had a fair shot of being heard. Naomi hated those damn letters. But temporarily irritating the shit out of her was the price he had to pay for ensuring he was being understood. In the end, that was what was most important to David: to have people see him for who he was.

With the shaving out of the way, some deodorant rubbed across his armpits, a tasteful splash of cologne on his neck, and his damp hair partially combed into place, David dropped his towel and grabbed his underwear off the chair placed against the opposite wall near the door. David slid them on, followed by a crisp white T-shirt.

Walking into the bedroom, he found Naomi putting the final touches on her makeup and hair as she sat at the ancient vanity table that was against the shared wall with the bathroom. It was a clunky, overly ornate, dark-brown thing with gaudy brass fixtures and thick curved legs with strange, swirling woodwork. It looked exactly like what it was: a piece of furniture hailing from another century. Or, more specifically, from two centuries in the past. It clashed with every piece of furniture in the condo. It was at least in better shape than when David had first clapped eyes on it. Before moving into this building, Naomi had it lovingly and exactly restored. It came into Naomi's possession from her paternal grandmother, whose Brooklyn home it had graced for years. But it wasn't hers to begin with either.

This piece of furniture had a long, storied history, having traveled from the banks of the Danube in Bratislava, then known as Pressburg, to arrive here in Cambridge. The vanity originally belonged to Naomi's great-grandmother, whom Naomi was named after. It was given to the original Naomi for the occasion of her wedding to Eli in 1897 by her new father-in-law Avner, who was a furniture maker. When Naomi and Eli saw the ugliness developing in Germany in the 1930s, they felt it was only a matter of time before the Nazi

disease metastasized down the Danube. So a cluster of the family packed up what they could carry and headed off by train. They made it to the coastal port of Brest and were able to board an ocean liner to New York City. They were more fortunate than the family members who remained; whose journey ended in Auschwitz. Of all the objects carried with them on their eight-month journey, the largest was that vanity. It must have meant a great deal to the original Naomi, and it now meant nearly as much to the Naomi currently sitting in front of it, struggling to get her hair just right.

David stopped and watched Naomi for a few seconds, contemplating the nature of this amazing woman he was lucky to have found. He considered the paradox of this woman he loved. She was often pragmatic to a fault, and to the uninitiated observer, she could seem cold and calculating. She was good at making hard choices; better than anyone he had ever met. When she was done with a person or situation, she had no issue walking away, with no regret or hesitation. But when she felt a deep and strong attachment to something, no power in the world could pull her away from it. That idea was best encapsulated in this old wooden vanity. But it wasn't the item itself that she was so committed to; it was the idea it represented. For Naomi, this antique piece of furniture represented a tie to the past, to her ancestors' decisions, the tragedies they experienced, the sacrifices they made, all the tiny, seemingly insignificant choices it took to bring it from the Europe of old to this very room. This was how Naomi expressed her sentimentality: by ensuring that the past was not forgotten and allowing those events to shape her. David's eyes were drawn to the lower-right drawer of the vanity, which he knew contained an entirely different secret.

Naomi looked up at David with her big brown eyes as he stood there in his underwear, lightly stroking the vanity and with a contemplative look on his face. "You thinking about putting on some pants in the near future, Sport?"

David hated when she pulled out the little nicknames you might use on the nine-year-old son of a friend.

"A shirt with buttons and a collar might be nice as well!" she said with a snarky half smile on her face.

David, shaken out of his ponder coma, looked down at her and took a step back. He frowned. "I hate it when you talk to me like I'm a little boy!"

Naomi, now in full smile, lifted herself up from the vanity and put her manicured hand on David's shoulder. "Well, then, stop avoiding the inevitable like a little boy and get dressed!" she commanded playfully, but commanded nonetheless. "We are not going to be anything more than fashionably late, even if I need to drag you there in a T-shirt and boxer briefs."

She planted a little kiss on his cleanly shaven cheek, grabbed a tissue, wiped off the tiny smudge of lipstick she left behind, and tapped him on his left butt cheek to motivate him to his task.

David shuffled over to the bed, where he had laid out his clothes before showering. He ran his hand across the smooth, soft gray fabric of his custom suit. David would never have purchased such a thing on his own—jeans and a polo shirt being more his thing—but the whole bespoke “experience” had been a gift to him from Naomi for his most recent birthday. It was some sort of silk and worsted wool blend, in a subtle herringbone pattern. “Imported from Italy!” were words said about the fabric a million times during his initial measuring session and later fitting session. Apparently, you can’t have a bespoke suit without some Italian weaver being involved. David sat on the edge of the bed and put on the most expensive pair of socks he’d ever owned. Then, he stood up and slipped on one of the tailor-made shirts that he got with the suit. He made a grim bet with himself that he’d ruin it by spilling something on it by evening’s end. While buttoning the shirt, he noticed Naomi had sat back down on the bench in front of the vanity, but this time she was facing him, watching him get dressed. Her lips formed a little smile; her hands rested on her crossed knees. David smiled back and looked away while grabbing his pants off the bed.

“Can I help you, my dear?”

Naomi leaned a bit in his direction and got right to it. “I’m no detective, but you would almost think you didn’t want to get together with your friends. Who are taking us out for a fancy dinner to celebrate our engagement, I might add!”

“Ugh!” David huffed. “Ben is my friend. So is Karen. All the others are really just people I happen to work with in one capacity or another. If this were a *friend* event, then I would have invited Zack and his wife.”

“Fine, then,” Naomi countered, with her cool, lawyer voice. “These are your friends and *work associates*. I mean, the two guys who formed a VC just to finance your new, enormous facility want to hang out and pick up the tab for what will undoubtedly be an expensive evening. And Zack isn’t part of this group; he is just an electrician living in the hinterlands. This isn’t his type of event, and it definitely wouldn’t be Louise’s sort of thing.”

Naomi kept her eyes locked on David, paused for effect, and added, “Besides, I think of most of the people there as my friends, even if you don’t see them that way.”

David turned away and looked out the bedroom window at the newly darkened city, glanced down as he buttoned his pants, took a deep breath, and sorted out his response in his head.

“Zack isn’t just an electrician, though that wouldn’t even be something to look down on—he owns an electrical services company and has done exceptionally well for himself; I suspect he pulls in more than you do in a year. You are right that they’d probably be bored with the crowd there tonight, especially Lou. Yes, Marco and Derek formed a venture capital firm to finance Chashmal, but that is what gave them the money to start their business in the first place! All things being equal, I’d rather hang around with Zack and Lou, and even hear about her precious horses I can’t relate to at all. I never know what to say to Marco when we are not playing cards, so I end up just keeping my mouth shut.”

David cringed a bit over the fact that he was continuing to lie to Naomi about “where” and “how” the immense amount of money had come to be acquired. The dark, petty part of him was saying it wasn’t technically a lie; it was the technology and subsequent software to run it that allowed the cash to flow. But his noble side knew it was at least a lie of omission. He dishonored himself and his relationship with Naomi every moment he didn’t tell her about how this amazing invention—which would someday solve the world’s energy needs—was rigging the stock exchange in their favor. Every day he continued to keep her ignorant cheapened him. She’d surely noticed his look of discomfort, so a misdirection was required to prevent her from reading into it.

He shifted his body back toward the bed, grabbed his overpriced silk tie off the comforter, and added, “Also, Zack lives less than an hour from the city, which is not exactly the inaccessible hinterlands!”

“You keep your mouth shut primarily because you are an introvert and are generally perceived as unsympathetic to other people’s points of view,” countered Naomi, still keeping her voice as light as a feather.

David moved toward Naomi and stared at her for a second before opening his mouth. “Can I use the mirror to tie my tie?” he asked, gesturing to the vanity mirror.

“Oh! Sure, sure, of course,” she said, a little scattered by the non sequitur. Naomi popped up from the bench, glided her hand across the left sleeve of his shirt, and got out of his way. David nodded in thanks, sat down, and began fussing with his tie.

“I’m going to wait in the living room, okay? You won’t be much longer, right?” she asked, already walking away.

“I’ll only be a few more minutes, assuming this tie behaves the way it should!” David said with a grimace as he stared into the mirror and performed the careful magic trick of turning a meter of triangular silk into a respectable neck decoration. As he set his hands to the task of attempt

number three at making an acceptable knot, his mind was occupied with thoughts of the best way to explain to his partner in life that he and Ben had invented a time machine.

Satisfied with the state of the tie, David slipped on his shoes, picked up his belt and jacket from the bed, and speed-walked out of the bedroom. He turned left down the hall, then right into the living room, where he found Naomi staring out the windows at the city lit up by millions of artificial light sources. He began looping his belt as she walked toward the other end of the room.

“Ready?” she said, without turning around.

“More or less.”

“Well, then, let’s scoot, Sport.” Naomi turned and grabbed her wrap off the edge of the nearby couch as she glided toward the door. “We are both going to have a good time tonight, David!”

“If you say so,” David said in a flat voice as he watched her cross the living room, throw on the wrap, and grab her purse off one of the stools near the raised kitchen counter where they ate most of their meals.

Naomi hooked her arm around his left elbow and gave him a big, impish smile. “I think I’ll drive tonight, David.”

“Why?” David asked while turning to ensure the door to the condo was shut and locked.

“I feel I’m going to need to pour a few alcoholic beverages down your throat to make the night more enjoyable for you,” she explained while pressing the button for the elevator.

“Well,” she cheekily added, “more enjoyable for the both of us, really!”

CHAPTER 2

THE ENGAGEMENT PARTY

David looked down at his glass and contemplated his life, the wine, and the entire universe. *This is the most expensive glass of wine I ever drank*, he thought. *Hell, it is the most expensive glass of anything I ever drank! What did Marco say it was? Barbaresco something, from the Piedmont area of Italy.* All David knew was that it cost \$425 a bottle at this restaurant. There were already three empty bottles of the stuff sitting on the table in front of him, and they hadn't even tucked into dinner yet.

Suddenly someone put their hands on the back of David's shoulders, startling him to the point that he nearly knocked over his dwindling glass of wine. It was Marco.

"Drink up, David, this is a celebration! C'mon, don't tell me you are thinking about the cost. You know money is no object!" Marco cheerfully exclaimed while firmly claspng David's right shoulder.

There was silence as David searched for something pithy or relevant to say while staring back at Marco's all-too-friendly face. Then, both of them saw the attractive waitress strutting toward the table with another bottle of wine. That half-second of distraction ended David's need to engage in conversation with Marco, as he then moved off to schmooze with someone more open to it. David's well-known introversion was a good cover for his antisocial feelings this evening. Being an introvert was a type of diplomatic immunity that excused him from the niceties that were expected of most humans in social situations. At least, that was the way he saw it.

Marco didn't wander too far, as he had now thrown his arm around Naomi. They were making eye contact from a close but not intimate distance. David seethed on the inside and emptied bottle number four into his glass. It wasn't that Marco was touching Naomi in any sort of provocative manner; David suspected that Marco would throw his arm around one of his many female cousins in a similar fashion. He was mostly bothered by the fact that Naomi seemed to enjoy Marco's company. As Marco was refilling her glass with the wonderfully expensive wine from a freshly opened fifth bottle, she was as

engaged in conversation with him as he was with her. David didn't consider Marco to be especially better looking than he. Marco was shorter—in fact, he was just slightly taller than Naomi, though she was taller than the average woman. He had dark, wavy hair that always seemed to be perfectly in place without looking like it was weighed down with hairspray, like a news anchor. He was in good shape, but not some muscle-bound mook. With his blue eyes and smile, you could be convinced he was related to Sinatra. Marco had an easy, charming way about him. David wasn't quite sure he disliked Marco, exactly, but he was convinced that Marco's mannerisms and motivations were as alien to him as if he had indeed come from a different planet or civilization. David resented him for his outward appearance of confidence that seemingly dominated his every interaction. He also wasn't convinced that he agreed with Marco that money would never be a problem. David was certain a case could be made that the way they invested in the stock market violated a trillion Securities and Exchange Commission laws, if, or more likely when, someone with authority figured it out. Not a lot of opportunity to spend money in federal prison, he reflected.

David gave his wine a swirl and attempted to appreciate its bounty of complex fragrances; he wasn't much of an oenophile, but when would he drink a premium wine like this again? Everyone at the table was engaged in conversation with someone else, so David was, in effect, sitting alone at the moment. He was completely fine with that. He lifted his glass, took a solid gulp, and went back to taking in the sights and sounds around him. The restaurant was something to admire. The owners had made the most out of the space, which had been an old warehouse at some point in the nineteenth century. The room itself was nearly as tall as it was wide, giving it the appearance of the inside of a cube. The décor was sleek and modern, with the only hint of its industrial past being a few exposed wooden beams running across the room. Large potted palm trees set in the corners of the room reached their way toward the intricate lights that hung from the ceiling made of multicolored hand-blown glass and shiny metal. They looked heavy and expensive hanging three stories above David's head.

I wonder what the hell this place cost them to decorate, he pondered. No wonder they charge twenty-five dollars for some French fries covered in herbs. How could they afford this place otherwise?

This was one of the trendiest restaurants in Boston. Its name was Baie de Brume, which means *Bay of Mist* in French. David found both the name and the restaurant heavy on pretention and light on accuracy. He was disappointed that a place with a French name did not have more in the way of actual French food. Instead, the restaurant was described as featuring

“Continental-inspired food with an Asian flair.” From David’s point of view, this description was just a ruse so that the menu could include dishes with names like “pommes frites allumette caressed with Chinese herbs,” which, as far as David was concerned, was French fries dusted with cilantro and star anise. Nevertheless, Baie de Brume was currently popular with the sort of people who cared about such things.

Through the decorative rice paper divider screens that sectioned off his party’s little area from the rest of the main dining room, David could see and hear the young, boisterous, way too casually dressed twenty-something trust fund types spending money they had no hand in earning, as if they were the entitled kings and queens of the universe. There were also older couples who were well dressed and quiet, avoiding both eye contact and in-depth conversation with each other. Occasionally, the older folks would shoot a sour glance at the trust fund kids for being too loud and obnoxious for their comfort. David wondered if they were the parents and grandparents of the younger set, and therefore the ones who had unleashed this noisy, insufferable plague upon the place.

The bar area was populated by a third group of patrons, which David suspected were professionals in their thirties and forties. David could relate to this group. They no doubt worked hard and at least had earned the money they were spending, unlike the loud trust fund babies. He imagined they were sales and marketing professionals, project managers, the heads of IT, or something similar. The Boston area offered lots of opportunities to work at high-tech companies started by introverted engineers and scientists like himself. People like David were ultimately responsible for creating the means for these bar dwellers to be enjoying overpriced drinks in their logoed golf shirts. This was not a complaint on his part. David could accept that, as much as the world needed focused, brilliant, oddball thinkers to push science and technology to its next innovation or efficiency, it ultimately needed more-grounded people to help implement those ideas in the real world. David wondered how many intellectually gifted people did he know who would never leave the cradle of academia to share their ideas with anyone not associated with their world; how many would never get up the gumption to implement some on-the-surface foolish idea, with the risk of failure ever present. David’s own personality had threatened to turn him into exactly that sort of academic hermit. But he’d rallied against it, pushing himself out of his comfort zone to devote his mind, his knowledge, to making a true difference to the world and its inhabitants. He was grateful that Ben always seemed to find a way to pull David out of the insular world of theoretical physics that would have been David’s lot in life if it were left up to him. It

was Ben and Naomi who were ultimately responsible for making him a more complete person.

Out of the corner of his eye, David caught the gesticulations of Marco as he told some no-doubt wacky and interesting story to Karen. She was clearly enjoying whatever it was that Marco was saying. David had met Karen Panchenko in the first few moments of college orientation, and he considered her his first college friend. Karen was smart—who at MIT wasn't—and often sarcastic. She frequently put on the persona of a nihilist, which she used to cover up her generally caring nature. He could rely on her to tell it like it is. Karen was usually the person who provided David with valuable perspective. Tall and thin, she had lanky Slavic good looks that she seemed to go out of her way to hide. Her piercings, tattoos, and gothic makeup were worn like camouflage. Karen kept her hair short, and as a result of it having been every possible color over the years, David wasn't sure he knew what shade her hair was naturally.

None of that was important to David; what did matter to him was that Karen was an extraordinarily clever and organized software developer. When he and Ben started their project, she was the first person they brought on board. Both he and Ben could dabble in programming, but why struggle through the process when Karen was able to develop their critical and necessary custom software with the expertise of Mozart at the piano? She was single-handedly responsible for writing Version 1.0 of the primary software they used for their technology—not an easy task. Karen now ran Chashmal's software development team. Once it was decided that the time anomaly was to be exploited for personal gain under the guise of forwarding the human condition, he and Ben brought Karen in on the secret. There was no other reasonable option, as they needed her to write the specific software that would take advantage of the time gap the technology created. This never concerned David, as Karen was good at keeping secrets.

For reasons that David could not comprehend, Karen and Marco had become close friends. He assumed that most of Marco's interactions with women were based on trying to charm his way into their pants. Perhaps that was his first reaction to Karen, David supposed. But Marco would have quickly learned that Karen had no interest in men. Yet here they were, Karen and Marco, thick as thieves. It seemed their personalities meshed. David had played cards with them recently where he lost a hundred bucks on a single hand. That entire night, Karen and Marco exchanged witty banter and good-natured teasing. They got along and had fun together, it was as simple as that.

David realized he'd been woolgathering about every aspect of the inside of this place as a way to avoid the very people who were there to celebrate his and Naomi's engagement. This sort of event was much more in Naomi's comfort zone—well, *every* sort of event was in her comfort zone. Naomi was a lawyer and had practically been born for her profession. She was personable and open, without revealing too much about herself to the people with whom she interacted. Naomi always seemed at home with any crowd and any person. At the moment, she was laughing it up with Derek, a fellow lawyer whose every mannerism and spoken word shone with integrity. He was the opposite of every sleazy lawyer joke David had ever heard. He and Naomi were standing near one end of the table, laughing up a storm about some professional situation that he doubted anyone else here could relate to, though Ben, leaning on a chair nearby, was listening in a way that indicated he hoped to follow the conversation.

Just then, David felt a gentle touch of fingertips on the top of his hands. "I never know what to do or how to act at these sorts of things either!" said the gentle voice of Billie, Derek's wife and perhaps the nicest person David had ever met. "And two lawyers? They might go on for hours with some professional insider stories; we may have lost them for the night! Believe me, I have been married to a lawyer for over a decade, so you'd better get used to it!"

David turned and smiled at her, having been so engrossed in his own thoughts that he hadn't noticed when she'd sat down next to him. With her deep-brown eyes that were nearly as captivating as Naomi's, and a beautiful smile framing the rest of her elegant facial features, Billie could have easily been mistaken for a celebrity. But it wasn't just her physical beauty that was entrancing; she had a friendly, open, almost serene manner about her. He had been told over the years that Midwesterners were nice to nearly a fault—*neighborly* being the word he had heard used to describe it. Billie seemed to take that to another level, as if she exuded some invisible pulse of energy that put people at ease. Perhaps it was her upbringing. She was born and raised on a farm in Southwestern Missouri, where her family had one of the few African American-owned farms in the area. David had learned through various conversations he'd had with her in the past that she grew up living with three brothers, a sister, three grandparents, and at least one set of uncles/aunts/cousins, all packed into a modest farmhouse and all pulling together in good times and bad to keep the family farm running. Even with all those hands available, Billie still had a few hours of chores to do before heading off to school each day.

Billie and Derek had met on a mission trip to Central America and were never hesitant to mention that their lives centered on their family's belief and participation in an Evangelical Protestant church in the area. Being religious, especially being openly religious, took a great deal of fortitude in the Cambridge crowd. Yet with that, David never felt like they were pushing their belief on others; they were just living it in their daily lives for all to see. Still, it made some people uncomfortable and, ironically, judgmental. Being judgy was a universal truth of human nature.

"Well, she'll have to deal with being married to an engineer, so that probably makes us even!" David countered, genuinely excited to be engaged in a real conversation for the first time that evening. David nudged his chair counterclockwise to face Billie a bit better, removing his hand from underneath her fingers in the process. He knew it was strictly a friendly gesture on her part, but a lingering physical connection with a beautiful woman in front of her husband and his fiancée didn't seem like a good idea to him.

Billie had spent her youth in a place and culture that could not have been more different from his own. David was the only child of two driven and highly intellectual college professors; for most of David's life, his father was a math professor and his mother was co-chair of the history department at Brandeis University in the Boston suburb of Waltham. Both parents came off as aloof academic intellectuals. His father now taught at UC Santa Barbara, where he had moved a few years ago with one of his eager young graduate students, Ingrid. She was a woman much closer to David's age than his dad's. *Yuck*—he shuddered to himself.

Apparently, his mother did not care too much, as it seemed as though she'd found human intimacy a distraction. Growing up, David hadn't noticed that his parents' relationship was mostly for show and that both of them were living parallel lives under the same roof. It made sense now.

David was raised in a very well-maintained historical home within walking distance of the Lexington Green and its "shot heard 'round the world" fame. The house was big enough that there were rooms in it where weeks could go by without someone entering them. He had a separate bedroom set up as a playroom that would later host some of his first physics experiments. As long as David was hitting the books, which, of course, he was, his parents didn't burden him with chores. While Billie had to get water and hay for a dozen horses each morning, he didn't even have to mow the damn lawn once a week.

"I'm glad we had the chance to celebrate your engagement tonight, David. Though I wouldn't have picked this froufrou place to have it, if it were up to me. But the guys wanted to go all out for the two of you!" Billie said.

The “guys” she was referring to were Derek and Marco, who had been close friends since rooming together in college. It was an interesting phenomenon, David noted, that there were many instances he could think of where the random pairing of two people in a dorm room created close, lasting friendships and, in the case of Derek and Marco, a lucrative business pairing. Their situation was very similar to his and Ben’s: two random people from wildly different backgrounds both ethnically and socially, who formed a lifelong bond that could be described as brotherly. It didn’t always happen; David knew many people who resented the hell out of their roommates. However, the constant, steady interaction and cooperation required of the dorm room could forge solid friendships among disparate people. Whether it was a first-generation Chinese kid from SoCal and a Jewish only child from the tony Boston suburbs, or a studious Black guy from Louisiana and a wiry Italian kid from a Rhode Island mill town, it seemed to be a powerful bonding process when it worked.

“It was very generous of them, and you, of course! Naomi and I appreciate it,” replied David.

“I am glad we could celebrate with the both of you. You and Naomi are a terrific couple, and I am sure you’ll make beautiful and very intelligent babies!” Billie said enthusiastically.

“Well, let’s not jump ahead that far!” David countered quickly, with a touch of fear and surprise in his voice. Billie put her hand on his shoulder.

Again with the touching, David thought.

“Don’t say that! Children are a blessing. Have them while you are young enough to enjoy them and young enough to have the energy to raise them right.”

“I’ll take that under advisement, but you may want to pitch that to Naomi instead of me. I suspect she will be more the decision-maker in that department,” David said while turning to watch his fiancée still engaged in whatever story Derek was conveying.

“Nonsense! That is a two-person decision. You’ll make it together! You both will make great parents when you get around to it, of that I have no doubt!” Billie said with a smile bright enough to light up the whole room—if anyone else were paying attention.

In that moment, another thought occurred to David that he had not had before. He now realized that Derek and Billie, like Ben and Mai, had had three children before the age of thirty, if he were to guess at their exact ages. Among their peers in the greater high-tech circles in which they existed, this was an incredible outlier situation. David knew far more people who intended to *never* have children than who wanted even one child. He recalled

a circumstance a few years back where a postdoc he knew was regarded as a pariah for having a second kid. All things considered, he would rather follow Billie and Derek's path than that of the doomy cynics who mocked parenthood. Besides, he was certain that Naomi would want to be a mother someday despite the "we'll see" attitude she expressed when the topic came up. David felt required to respond to Billie's affirming words with something equally affirming.

"Well, we will definitely look to your and Derek's example in this arena; you two have created a great family together!" he said, attempting to return Billie's optimistic smile.

"We do all right for ourselves, for sure! But we have you and Ben to thank for the financial security that makes this possible for us," Billie replied.

"Eh, Derek was going to be a big success one way or the other, so I'm not sure how much I helped with that," David countered, with a bit of a nascent concern brewing in the back of his mind. He tried to sound and look cool and casual as he said it. He traced his left index finger across the tablecloth in a figure-eight pattern, thinking it added a spontaneous feel to the statement and hoping that would be the end of this part of the conversation.

"That is true, we were already on our way. But it was your physics wizardry that came up with, well, you know, whatever you want to call the amazing predictive program that Marco uses to pick the stocks. It is as if it can see into the future!" Billie responded.

Shit! David's brain said to itself as he shifted in his seat in a vain attempt to be and look more comfortable. He took a sip of wine, spread some tapenade on a piece of house-made crispbread, and bit off an overly large chunk of it with a loud *crunch*. He spent the time noisily processing his mouthful trying to analyze the look on Billie's face. Years of losing at poker had taught him that discerning the true emotions behind a person's outward appearance was not something at which he excelled. *Did she know the truth?* he asked himself. *If so, how?* It wasn't exactly as if one would guess that the reason the stock data they received from him was so right on the nose was because the energy-producing technology he helped invent had the added benefit of creating a temporal gap in space-time that allowed information from the future to be read in present day. *No*, he assured himself, *she can't know, there is no way.*

Nearing the end of his stalling mouthful of olive-smeared cracker, David did his best to overcome his inability to read Billie's facial expression and body language in the hope of gleaning a hint as to what to do next. She looked like someone getting bored. Way too much time had passed since he'd said anything, so...

“What exactly do you know about how the technology—well, how the stock program works?” he asked, trying to hold back his nervousness. David was sure he had an uneasy smile on his face, and the staccato strumming of his fingers on the table wasn’t helping.

Billie looked confused, or perhaps surprised, by the question. David realized that the way he asked the question sounded harsh and perhaps suspicious. She leaned in toward him, placing her right hand on his forearm, which put an end to the strumming. Her sympathetic smile returned.

“I don’t know, David. Not a heck of a lot. Something about the tracking of the electrons in the vacuum of the instrument having similar movement to stocks in the market. I read that article about it. Sounds crazy to me, but what do I know. I’m not a whiz-bang scientific genius like you or Ben. I’m just an accountant by trade,” Billie replied to the unexpected question. “It was nice talking with you, David. We don’t get to talk—just you and I—nearly often enough. I’m going to go over and say hello to Mai Lin.”

David watched as Billie stood up, slid out her chair, and moved around it. She kept her eyes on David, but her smile went from warm to perfunctory, and she glided to the end of the long table to where Mai sat alone. *This was a losing hand of poker, David thought, and I always have a tell.* He didn’t need to be able to read people well to know that he’d just put an idea in her head. Billie would walk around with a nagging thought in the back of her mind that something was off. If she were anything like he was, this thought would sit in the back of her mind and continue to seek out her attention. With each repetition, it would get stronger and clearer, and start evolving into theories. David had forgotten that she’d kept the books for AzimuthView Financial Planning, the company Marco and Derek had started. He could imagine that, during the long, dull accounting sessions, her active mind could return to the puzzling idea he had planted while the more automated parts of her mind ran and checked the numbers for the company.

“Dammit, I just made this worse!” he said quietly to himself. But not quietly enough.

“What did you make worse, David?” asked Rakesh from across the table. This startled David, who had not realized Rakesh was there, no doubt listening, the entire time. Rakesh Chaudhari was a mechanical and systems engineer who had worked with—or more accurately, *for*—David and Ben at Chashmal since the beginning of their project. Older than the rest of them by nearly two decades, Rakesh was more than a bit of an outlier in this endeavor. He first came to them as a part-time consultant/contractor, working closely with Ben to assemble the first version of their machine. When it became clear that the technology worked, he became the first full-time paid employee

outside of Ben. He had gone through an ugly divorce that had cost him his house, his kids, and eventually his job and most of his friends. This resulted in Rakesh being desperate for money and behaving like a cranky loudmouth who couldn't stop talking about his ex-wife or the divorce. Interestingly, this made him the perfect employee. They could afford to pay him well, which took the pressure off and bought his loyalty. Of course, purchased loyalty is fake loyalty, but for Rakesh, it was a seed that would grow into the real thing. He was in on the secret feature of the technology from the beginning. There wasn't really a choice in the matter. He was there, and they needed him to help modify the rig to better explore the time anomaly. The gobs of money he'd made from the stock manipulation perhaps bought even more fake loyalty, but also fostered a sense of trust and belonging in the guy. Rakesh was in on something special, something different. He knew it, and he acted accordingly. Ben had some concern at the beginning that he'd be the weak link, blab the story to one of the stream of women he dated, sell the story to some news organization, or leak information to the feds in exchange for immunity to whatever charges could be brought against them for not obeying the laws of physics. But it turned out that, when it came to this most impactful of secrets, Rakesh was a guy who knew how to keep his mouth shut.

"It's nothing," David said unconvincingly as he looked at Rakesh, sitting there in his stylish charcoal-gray suit jacket, no tie, and a plain white shirt with what seemed like a comically large and stiff collar and one too many buttons undone.

"Don't worry, David. Billie doesn't know, and she won't figure it out, at least not from what you just said," Rakesh assured him. "Though I know you won't be comforted by that."

He was trying to help, David knew, and despite finding the man annoying and a bit grotesque, he appreciated the effort.

"As you know, I'm not comforted by much, though this wine is helping!" David exclaimed, his smile bordering on a smirk as he raised his glass in Rakesh's direction. "Oh, and, uh, thanks."

"No worries, man!" retorted Rakesh with a magnanimous smile and a tip of his rocks glass, which was filled with crushed ice and a brown liquid David guessed was a top-shelf bourbon. David knew that a true aficionado of good whiskey of any kind would never let their prize be diluted by adding crushed ice. It was all for show; a facade Rakesh put on to imply he was into the finer things in life when in fact he had no genuine sophistication whatsoever. Rakesh was all about appearances. He was not a great-looking man, probably never was. And being past fifty was not helping. His expensive

haircut probably hid his thinning and graying hair better than it should. His pocked brown skin showed his age, as did the wrinkles around his eyes and mouth. Rakesh sported a large, bushy mustache, which David suspected Rakesh thought made him look hip. But it came off as the type of facial hair you'd see on a generic bad guy in a movie, like the head of a crime cartel or some tin-pot dictator. Rakesh drove a cadre of flashy cars, each suited to his mood or activity. In just the last month, David had seen him in an upscale electric sedan, a ginormous and heavily modified German SUV, a mid-engine exotic Italian sports car, and a fancy land yacht convertible coupe. He also had an old-school turquoise-blue Corvette Stingray, which David had to admit was pretty cool.

Tonight, he was betting, Rakesh had arrived in the mid-engine number, judging by his date. *Ugh*, David said to himself, *the dude brought a date to an intimate affair among friends!* It was a move he wouldn't have thought even Marco was tacky enough to pull off. David darted his eyes to the right to take a look at her while keeping up his conversation with Rakesh. She was young—he guessed almost half Rakesh's age—with bleached blonde hair; tanning salon skin; and thick, dark, perfectly but oddly shaped eyebrows that advertised her bogus hair color like two hairy billboards. She was thin, shapely, toned, and absolutely pouring out of the top of her dress. The tawdry stranger had spent the entire night in silence, looking down at her phone and awkwardly typing on it with the flat part of her fingers, since her too-long fake nails meant she could only touch the screen with her finger parallel to the surface. Rakesh barely introduced her to people when they arrived, and she was already looking like she'd rather be elsewhere. She was bored eye candy meant to impress a group of people, and if Rakesh had taken a second to consider it, he would have known it would have the opposite effect. Rakesh shot David an amused look when he saw him looking at her. David's brief moment of ogling, and Rakesh noticing it, was exactly why the older man had brought her. The cat-that-ate-the-canary smirk that he shot at David was proof of it.

Rakesh broke the silence. "Have you told her yet?" he queried. "Believe me, you don't want to have her find out from someone else—it will haunt your entire marriage, trust me on this. I know a thing or two about the lingering lies of omission."

"You and Ben nagging me about it is not helping, and can we not have this conversation right now?" David said, pointing at the date with his eyes.

"Ah, Sandra here is not even listening to us. Are you, Sandra?" Rakesh said while putting his hand on her shoulder.

Sandra was briefly shaken from her cell-phone torpor. “Whassat?” she inquired, looking up at Rakesh and then at David with a half smile and blinking with her ridiculously long eyelashes.

“Sandra, this is David, the man of the hour!” announced Rakesh enthusiastically.

“Oh yeah, congratulations!” Sandra replied in a friendly and surprisingly sincere voice.

Concentrating on his social skills, David grabbed the mostly full sixth bottle of wine and gestured it toward Rakesh and Sandra. “Would either of you like some wine? It is very good, trust me.”

“I’m waiting to have some with dinner—I bet it’ll go great with the filet I’m about to tuck into,” Rakesh answered.

“Ew, no thanks, red wine is too sour for me. I find it a bit gross!” Sandra replied.

“I think there’s a bottle of white out here too, if you’d prefer,” David said, scanning the table.

“I’ll stick with my martini, thanks!” Sandra said, going back to staring at her phone, her socialization quota apparently filled for the night. When she said “martini,” what Sandra was referring to was some slushy chocolatey thing complete with cookie crumbles—more alcohol-laden milkshake than martini. David thought the drink selection certainly made sense from what he could tell about her.

With the wine bottle in hand, David looked for something to do with it other than pour himself another glass. It wasn’t a good sign that he’d already lost count of how much he’d had. He then noticed that Ben had sat back down and was now intently listening to Billie and Mai’s conversation. He could not make out a word of it, though, thanks to the annoying din of the trust fund babies at a nearby table.

“Hey, can I fill your glass, Ben?” David said loudly enough for Ben to hear.

Ben turned and, upon seeing David with wine bottle in hand, smiled and nodded at him, grabbing and tilting his wine glass in the process. Rather than reach across the table, David got up and walked around to Ben, brushing by Billie in the process. He glugged a generous portion of wine into Ben’s waiting glass.

“Would either of you ladies like some wine?” David said with a smooth, friendly tone of voice. He was now realizing the alcohol had already switched on his social skills, and while he was not exactly the life of the party, he was no longer outwardly demonstrating his awkward side.

Damn, Naomi was right about the alcohol's effect on me! he thought to himself.

"Yes, please!" Mai answered with a lift of her glass. Billie shook her head no with her usual sweet and polite smile. David swore he saw an odd look on Billie's face behind her friendly persona. The thought tightened the muscles in his temples.

Mai Lin made David seem like an extrovert in comparison. She was more cute than she was pretty, though he did not find her attractive. It was good to not be even slightly attracted to your best friend's wife, he conceded. She was wearing a green skirt and jacket with a peach-colored shirt that looked more business meeting than dinner party. It was as if it were camouflage to keep her from being noticed, despite being among friends. Even her clothes were shy. In the thousands of times he had been in her presence, he wasn't sure they'd ever had a deep conversation. It just wasn't her style. He knew she kept good counsel for Ben and that he relied on her intelligence and insight to inform his decision-making. Her introduction to Ben was arranged by her family, and they married soon after that. The first years of their marriage were fraught with financial struggle, so David was glad Mai got to benefit from the work he and Ben had put in. She now could take care of her children and aging parents without worrying about when the next dollar was coming in. She, of course, knew the secret, and she had from the beginning. If she had any reservations about the situation, she never expressed them. The one thing he knew about Ben was that if Mai had an issue with the stock manipulation and wanted it to stop, Ben would have ended it in a second.

After pouring Mai's wine, David smiled at the two women and turned to look down at Ben. "Can we talk for a moment?" he asked while gesturing away from the table.

"Yeah, sure," Ben responded as he got up, grabbed his wine glass, and walked with David to the corner formed by the outer wall of the building and the dividers set up around the table. Ben leaned in toward David's ear the best he could, considering their height difference. They would have to close-talk if they wanted to hear each other over the ambient noise of the restaurant and maintain any sort of private conversation.

"Is this about the Department of Energy inspection on the new facility next week?" asked Ben.

"What? No! Wait, weren't they just there?" a confused David responded.

"No, that was a state inspection. The DOE has no real interest in seeing our technology succeed, you do realize that? Think about the lobbyists working for the other types of power generation companies. Do you think they

want us to compete with them? Those lobbyists heap money on the people who fund and control the DOE, so do the math!”

Ben continued: “We’d better make sure our side project is very well hidden when they come visit us.”

“It is hidden in plain sight, Ben,” said David as he hunched toward Ben’s ear, his hand on the man’s shoulder. “The place is just another secure room with a bunch of computers and monitors. Those computers will just look like all the others monitoring some function of the system. But that isn’t what I wanted to talk to you about.”

Ben smiled and looked relieved, his eyes a bit droopy and unfocused from the alcohol he’d consumed. David wondered if he looked much the same.

“Great, David, since hiding the time thing is more your baby, I’d rather you deal with it. So, what is it *you* wanted to talk about?”

“What were Mai and Billie discussing when you were listening in? Was Billie probing her about our science project?” David inquired.

“No, nothing like that. They were talking kids and stuff. Polite, normal, throwaway conversations about how old, how tall, can so-and-so read yet, that sort of thing. Why the hell would Billie be pressing Mai about our technology?” Ben asked, not so subtly looking over at the two women, who were still engaged in conversation. He paused for a moment and let his wine-slowed brain catch up. “Wait, do you think Billie knows about the stock thing?” Ben asked, straightening up a bit. “I mean, she keeps the books for Derek and Marco, so do you think she figured out that we have been lying to them about the data?” Ben’s obvious staring had now caught the attention of Mai, who shot him a look of curiosity. This had the snowball effect of attracting Billie’s attention as well. Then, Ben put it all together, any trace of inebriation no match for his quick and focused mind. “Dammit, Big D! Is this what that is about? Your years of straight-up lying to Naomi? Geez, just grow a sackful and tell her already. Hey, you’ve had a few drinks, go tell her now! She can’t kill you in a public place!”

Ben was emphatically pointing over at Naomi, deepening the strange looks on Mai’s and Billie’s faces, who canted their heads like puppies hearing an unknown noise. Naomi—now engaged in a four-way conversation with Derek, Marco, and Karen—took notice, as if Ben’s pointed index finger had sent her an invisible signal. The quartet was now looking over as well.

David gawkily grabbed Ben’s forearm and pushed his arm down, as if this would end the damage caused by his pointing at Naomi.

“Don’t point! What’s wrong with you?” David scanned all the staring faces from right to left. Naomi began to break from her group and started to walk around the other end of the table toward David and Ben, no doubt to

determine what sort of nonsense was afoot. David would have to make this quick.

“Yes, fine, that is a big part of this. I haven’t told her, and if she finds out from someone else, I’m afraid she’ll leave me. Hell, she might leave me if *I* tell her. But I also think I may have inadvertently hinted that something isn’t right to Billie. She’ll figure it out, I know it! We are losing control of the narrative, Ben! Find out what your wife heard from Billie, and I promise to let Naomi know before the end of the weekend. Then, we can plan out the best way to keep a cap on all this!” David rapidly spurted in Ben’s ear. “And, for the millionth time, don’t call me Big D!”

Ben smiled at the annoyance he’d caused David. The nickname thing Ben did to David was just a long-running piece of performance art that never seemed to get old for him. David was often irritated, and Ben always found it amusing. Ben eyed Naomi’s approach and calculated he had only a few more seconds to talk.

“The thing about secrets, David, is they always get out, and they usually cause damage when they do. Sooner or later, it’ll no longer be a secret, and we’ll have to account for our actions, brother.”

Naomi was now upon them, smiling amusedly and putting her arms around the two of them while pulling her head in next to theirs.

“What are you two scheming about now?” she said playfully.

David rubbed his hand across the silky-smooth gray fabric at the small of her back and replied, “It’s nothing, just some ridiculous talk about one of the buildings on our new campus.”

“Hmm, it doesn’t seem like that, David!” Naomi quickly assessed.

David nervously swallowed saliva and old wine, and tried to reassure her. “Really, I—”

From around the rice paper divider a cadre of waitstaff suddenly appeared, carrying the entrees on large metal platters. One of the servers had two more bottles of wine in her hand to get them all through dinner with sufficient slosh. The conversation circles halted as there was a call to return to their seats for the meal.

“All right, my file! I’ll take that wine now, David!” Rakesh said gleefully.

Naomi slipped her arm around David and gently herded him toward the table. “We’ll talk more later?” Naomi asked, leaning in toward David while standing on tiptoes, her lips millimeters away from his right ear. The sensation of her soft breath made the hairs on David’s neck stand up. He turned to pull out her chair for her, gestured gallantly for her to sit, and grinned at her with love and affection.

“Absolutely, Naomi, we have lots of interesting things to talk about!”
David said while once again giving his wine glass a generous refill.

CHAPTER 3

CLOSING TIME

“You’re drunk,” Naomi said flatly as she stood next to her barstool holding a tall glass of seltzer with a slice of lime. “I think it’s time to go. We’ve closed the place anyway.”

David began to protest—he wasn’t *that* drunk—but paused to self-assess. After four or five glasses of wine, two ports with dessert, and whatever brown liquid he was drinking now, there was little doubt about it: he was quite drunk. The restaurant was now practically empty, just a half-darkened room with a small army of people cleaning the place and a tired-looking bartender yearning for the end of her shift. It was down to him, Naomi, Marco, and Karen. They were all sidled up at the bar, thirty minutes into the new day. Derek and Billie were long gone, having packed it in quickly after the last bite of dessert; they had a babysitter to relieve and a church service to attend in the morning. Rakesh and Sarah were the next to exit. The combination of her utter boredom and Rakesh’s assessment that she had consumed just the right amount of alcohol had hastened their departure—though the general consensus among those remaining was that the rest of the evening would not go the way Rakesh had schemed, with Naomi speculating that at that very moment, Rakesh was likely at home, alone, sitting on his couch, drinking a beer, and eating chips while watching some old action movie on cable. *Served him right, the old leech*, David thought. Surprisingly, Ben and Mai hung on until nearly midnight. Mai even came out of her shell and told an embarrassing story about their courtship that included a hilarious misunderstanding between Ben and her father. Naomi had decided that Mai was a calm pool of water that ran deeper than expected.

“Well, last call is last call, and our lovely host looks like she’d just as soon go home now,” said Marco as he smiled at the heavy-set middle-aged bartender. She flashed him a genuine smile in appreciation for acknowledging that she wanted to get out of there, and for the compliment. Despite his garrulous nature the entire evening, it was clear that Marco had paced himself and was sober. His comment to the bartender was designed to be

charming and sweet, not some awful, drunken, end-of-the-night come-on. One of the things Naomi liked about Marco was that he was authentically decent to everyone he met. She had thought that, as someone in sales, such friendliness was manufactured sincerity designed to gain something from every interaction. But this wasn't fake; it was a reflection of his true nature. Marco swished down the last of his drink and set the glass on the bar with an emphatic *thud*.

"C'mon, David, finish up your drink, your lady wants to go!" Marco said while patting David's shoulder blade.

David sleepily turned and carefully attempted to sound less drunk: "What is this stuff anyway? It tastes like burning mulch but is still strangely delicious!" David pointed with his face to the glass clasped carefully with both hands.

"That, my friend, is a lovely scotch from the Islay region of Scotland, one of the finest distilled spirits in the world. Don't let it go to waste!" Marco said with a warmth that indicated an actual affection for David. David gulped down the last bit of the scotch and clumsily got up off his barstool, his knees initially not providing the proper amount of bracing to hold him in a standing position.

"All right, Dr. Kaplan, let's get you home before you pass out or, worse, vomit in my recently cleaned car," Naomi said with equal amounts of amusement and reluctance to have to take care of a drunk person for the next several hours. She turned to Marco, who was settling the bar bill with the suddenly chatty bartender, and Karen, whose head was nested in her arms on the top of the bar. "You two gonna make it home all right?"

"Yeah, I'm good to go, not feeling it at all, in fact!" Marco replied.

"Uhhhh, I think I'll have Marco drive me home," Karen said, fumbling to pat Marco with one of her hands without looking up. "Izzat good with you, Marco? I'm too tired to drive myself."

"Tired! Yeah, that's the issue, Karen. And of course I'm happy to ferry you home," Marco said with a smile, turning to Naomi. "You're not the only one worried about vomit in your car. I'll make sure she gets home safe, and I'll get some water and painkillers in her to lessen the blow of the world-class hangover she is going to have in the morning."

"Good idea. I put a couple of bottled waters in my car for this exact reason; do you want one for her?" asked Naomi, pulling her wrap around her shoulders.

Marco responded as he lifted the pile of Karen to an upright position. "No, it'll be fine—Karen's place is only a few minutes from here, and we

could practically walk, or stumble, there, as the case may be. But maybe to be on the safe side, could you escort her to the bathroom before we go?”

“That makes sense. I could stand to use it before we take off anyway.” Naomi grabbed Karen by the shoulder. “Let’s go to the restroom, Karen, and you’d better walk, since there is no way I can carry you.”

David, on his feet and holding it together, watched as the two women shuffled off towards the front of the building. He looked over at Marco, who was doing the now standard ritual of checking to make sure he had his keys, wallet, and phone before leaving the bar area. It was an odd little dance that required patting every pocket on your person and running the mental check that the item you’d just patted met the criterion of one of those three things. As the patting continued, Marco noticed something was missing, then said out loud, “I valeted! They have my keys!” He also noticed that David was looking at him with an odd expression on his inebriated face.

“Since the restrooms are near the door, we should head that way as well so that we can make a quick getaway when they are done.” Marco gestured forward with his left hand and herded David with his right. “Is everything all right? What’s going on with you? You were looking at the women as if you’ll never see them again. I’m sure they will safely and successfully navigate the working of a public bathroom together.”

“I’m sure they will. I’m just a bit worried about Karen. She’s been odd lately. A bit off. Has she said anything to you?” David said with all the slyness his alcohol-soaked mind could muster.

Marco sighed and responded, “She’s had a tough time with Luci moving on over the last few months. She’s unhappy about it, but she’ll bounce back. She’s a tough cookie, that Karen. Besides, we can all agree she is better off with Luci gone. As soon as I get Karen in her home and she sobers up, she’ll pound the sad back down deep in her guts, and she’ll let it out a bit at a time as sarcasm directed at the rest of us. Like normal.”

“Makes sense,” David said, though still unconvinced, as he watched the two women disappear into the restroom.

Karen had been living with Lucienne for the past couple of years. Naomi wasn’t sure how they met or what precipitated their relationship, but she did know they met after Karen had joined Chashmal and the money started rolling in. Though, to her credit, it didn’t seem that Luci cared about Karen’s money; she was certainly fine about walking away from it with no demands or expectations. Everyone seemed to agree that Luci was generally an unpleasant human being. She had the knack of sucking the happiness out of any room she was in, like some sort of joy vampire. Vain and arrogant, unable to see another person’s point of view, and thin skinned, she took offense at even

the slightest hint that someone did not exactly agree with her opinion on something, anything. Everyone in their friend circle was glad she was gone, except for Karen, of course.

The women left the bathroom to find David and Marco waiting for them at the restaurant's front entrance, more than ready to leave and call it a night. Naomi shot a look at Marco that conveyed *take care of her*, and Marco nodded in acknowledgment. She then latched herself onto David's arm, out of affection rather than because he needed the escort, as they walked outside. The air had a cold bite to it now, making her wrap insufficient to the task. There was something about autumn evenings that made the night seem even darker than it did a month ago, and the relative quiet of the city at this early hour made the short walk to her car take on a sense of urgency to quickly cocoon herself in the driver seat. Luckily, Marco had the foresight to arrange to have the valets bring everyone's cars to the entrance, and the valets were more than happy to comply because it would end their work time a few minutes early. Marco slipped both valets some cash, relieving Naomi of the need to search through her clutch, or to ask David to fumble with his wallet in his current state. Hugs were exchanged all around. David participated in hugging Marco with the obligatory back slaps that were standard operating procedure whenever two men hugged each other. They settled into their respective cars and were on their way.

"Well, that was fun and interesting. Everyone had a good time, except maybe Rakesh's date," Naomi started off. A breakdown of the events of an evening like this is something nearly every couple engages in on their way home. Naomi had been looking forward to this conversation and hearing David's take on the night's events, especially with his filter turned off by the consumption of alcohol.

David chuckled. "Yeah, she did not have fun with us! But I suspect her goal was a free meal in a fancy restaurant, so 'mission accomplished!' for Sandy!" David smirked and began to shake his head. "Rakesh is such a tool. Whatever his mission was tonight, it seems like it might be a solo mission now!"

Naomi snorted out loud and tapped her right hand on David's left thigh in approval.

"Aren't you the bad boy, David. I wish it didn't take alcohol to sharpen your tongue. You have such a quick wit, but you rarely let it out! Thanks for that visual, by the way—yuck! Oh, and I'm glad you at least enjoyed that wine. It is too bad I only got to have two glasses of the stuff, even though I'm the wine aficionado of the two of us."

“Hey, you told me to get my drink on. I was being a dutiful boyfriend and obeying you!” David replied.

“That’s true, so thanks for really running with it!” countered Naomi. “Do you think the massive hangover will be worth it? Oh, speaking of which, there’s a water for you in the door pocket; you should down it.” Naomi threw her black leather clutch into David’s lap. “There are some ibuprofen in my bag; you should take two right now.”

David struggled to release the water bottle from the simple storage area in the door—not a good sign. He was clearly starting to feel the aftereffects of the night. He cracked open the bottle and proceeded to spill 10 percent of it on his pants, partially due to his drunken lack of coordination and partially due to the flimsy design of the bottle, which was created to minimize the amount of plastic but rendered the thing not much more than a cylindrical bag that is impossible not to squeeze as you hold it. He swore, guzzled half of it, then searched Naomi’s clutch for the pills. Upon finding the little, liquid-filled green oblongs, he swallowed them with the remainder of the water. Naomi smiled at the act, satisfied that David had listened to her advice.

“Did you talk with Billie tonight?” David asked while reaching for the second water bottle, which Naomi had stored in the drink holder for the backseat.

“Not really, just a few pleasantries. I talked a lot with Derek, mostly shop-talk. You did, though. What’s up with her? What did you two talk about?”

David hesitated.

“Billie was asking about the software that drives the stock picks and how she didn’t really understand how it works,” David said as an opening gambit to the moment of truth. He paused, looked over at Naomi, who was concentrating on the road, and diverted the conversation. “Oh, and she encouraged us to have lots of babies. Well, at least have some. She said they’d be smart, great-looking kids!”

“Well, no duh, they’d be awesome! But we shall see if that is the way we go,” retorted Naomi.

I called it, David thought as he chalked up 1 point in the “I was right” column. “Billie said that if we have them young, we’d have more of the energy required to raise them.”

“Interesting unsolicited advice!” Naomi considered this for a moment. “I suppose it is our duty to humanity to pass on our obviously superior genes. Tell you what, let’s get through the wedding, then we can discuss childrearing.”

“Uh-huh,” David said, his voice trailing off as the first wave of sleepiness began to dull his senses.

The streets were empty, which made quick work of the drive home, even on the surface roads. Naomi knew the city well and was taking a serpentine route, deftly navigating the narrow roads, using the many one-way streets to her advantage. *We'll be home soon enough, and then the fun of tending to my overindulged boyfriend will begin in earnest*, she considered. *I'd prefer it if I didn't have to worry about him vomiting in the bedroom. Maybe I could set him up in the shower with a pillow. It would be easy to clean up if he vomited there. But, then again, I need to get up early, so I'll need the shower...*

"Oh, I forgot to tell you," Naomi said with sudden realization. "My mom is coming to stay with me for the next week or two, maybe more. I'm picking her up at the train station in Providence tomorrow morning."

The revelation startled David from his zoned-out state. Sitting up straighter in his seat, he turned to Naomi, who was still fully focused on the road straight ahead.

"What? Rachel is coming up? For how long? Can I ask why? Oh, and why Providence?"

"She is coming up to start the planning process for the wedding. She insisted on doing it in person. Plus, we haven't had much mom-and-daughter time lately, so this was a good excuse for her to hang out with me and point out all the ways I'm living incorrectly! And I'm picking her up in Providence because we are having lunch with my mom's friend Evelyn, who moved up to Rhode Island last year, so fun all the way around!" Naomi said while turning into the parking garage under the condo building. The harsh yellow-orange glow of the sodium lamps lighting the inside of the structure gave the entire place a sickly surreal feel that was disorienting to Naomi under the best of conditions; at one a.m., while being mentally and physically tired, it was downright hellish to park the car and get into the elevator, which was lit normally in comparison. In the light, her stately blue Jaguar took on an awful greenish-brown color, which always made her sad to see. The parking spaces were all quite tight, and her assigned space had a concrete column next to it that she was sure she'd scrape her car against one of these days. She carefully slid the car in next to David's now ancient silver Prius, the one he'd purchased before the money started to flow and hadn't felt the need to jettison for something more up-to-date. Somehow his car still looked its actual color in this light; she wondered why.

David struggled out of the car, taking care not to open the door so wide as to scrape the edge of it against his car. Even in his sleepy addled state, he was an engineer able to follow this procedure by rote. He looked over the roof of the car at Naomi, who was also sidling out of a half-open car door. "Oh man, a few weeks? Since you haven't said exactly how long, can I assume

this is an open-ended stay at this point?” David watched as Naomi nodded in confirmation of his conjecture. “I still don’t get why she needs to be up here for a few weeks for wedding planning. What can’t be done by phone or email?”

Naomi laughed while grabbing David’s hand to walk with him. She looked around at the ugly lighting, low ceilings, and tight spaces, considered the odd echoes off the bare concrete walls and the stagnant stale air, and wondered if this is what her hell would be like if she believed there was such a place..

“You have no understanding of women and weddings, do you? I’m her only little girl, and just like I have had an inkling of what sort of magical princess wedding I’ve wanted since I was about eight, she has pictured a specific wedding for me. Her vision of the wedding is quite far from mine, as I have no interest in being a magical princess anymore. But my mom? She’ll have a hard time just with the idea that we are not getting married in Temple Beth El back on Long Island.

“There are a million non-negotiables here that I will have to negotiate all the same,” she continued to explain while pressing the button for the elevator, which thankfully opened immediately as if it were waiting for them. “Yes!” Naomi exclaimed with a fist pump. “It must have known we needed to get the heck out of this parking dungeon and into our condo for some desperately needed sleep!”

“Actually, the elevators are programmed to stay idle at the most likely place for them to be used next. So, for most of the day, it means keeping their home base as the lobby, but at this time of night, it must be that more people use the parking structure to get into the building, so the elevator is set to wait here,” David explained unnecessarily.

“Way to suck all the fun and wonder out of the moment there, Chief! You do know that I didn’t actually think the elevator had some sentient understanding of my need for it to get me out of the garage!” Naomi said wryly, while watching the floor numbers increase toward their destination. “But, speaking of sucking the fun and wonder out of things, you do know that the other person involved in the planning of our wedding is going to be your mother, right? So imagine for a moment what seventh circle of hell it will be to sit down with both my mom and yours, two more polar-opposite people in attitude you cannot find yet both oddly similar in presenting their point of view with a stubborn assuredness. I already know my mom wants a traditional wedding down to us being carried on chairs, and your mom will probably want us married on a mountaintop with a shaman performing some traditional ceremony with a smudge stick to drive out bad spirits. I am

a corporate attorney, and I have had to negotiate with high-powered lawyers from the government and Big Pharma over minutiae that have millions of dollars on the line, yet I will be in over my head trying to make both mothers happy with our wedding arrangements.”

The elevator made the happy *ding* that announced their arrival at the correct floor. Naomi stepped off, leading the increasingly leaden David to the door of the condominium. The door had a biometric fingerprint sensor negating the need for Naomi to search for a key, so she pressed her thumb to the pad and was rewarded with the satisfying *beep-thunk* of the door’s dead bolt being retracted. She guided David in through the doorway and then followed, locking the door behind her. David had beelined it for the kitchen, where he’d filled a glass with water and was chugging it down, a prudent move under the circumstances. When he was finished, he leaned on the cool marble counter near the sink and yelled out to Naomi, already elsewhere in the home: “You know, I am happy to be as involved as you want in the wedding planning, and I am absolutely happy to take on the task of managing my mother in this process. In the end, I think it is up to you and me what sort of wedding we have, though I really don’t have strong opinions about any of the details. My only concern is making you my wife; I’d do that at city hall tomorrow if I didn’t think it would cause turmoil for you.”

Naomi returned to the living area, already in a robe and slippers. David had come out from behind the counter now and was shedding his shoes and clothes as he shuffled toward the comfortable-looking living room furniture.

“Oh, sweetie, I know you are not pushing this off on me, and I’m not frustrated with you regarding the wedding plans. The idea of getting married tomorrow in city hall definitely has its appeal, if city hall were actually open on a Sunday, but I want to have a big, fun, perhaps slightly magical wedding. The burden will fall on me to work out plans that will satisfy both families,” Naomi said, reaching down to pick up David’s suit jacket. “Besides, neither mother cares what you think about the wedding plans. You’re lucky to be invited!”

David, now just in his underwear, had plopped onto the puffy gray reclining loveseat with a sigh of relief. He gathered the pillow next to him and clasped it to his chest, leaning the side of his head on its corner. David was spent. With narrow eyes and a tired smile, he looked up at the approaching Naomi and said in a slushy voice, “I am lucky! You just let me know what I can do to help, even if it is just staying out of your way.”

Naomi sat next to him on the loveseat, also with a plop and a sigh. She was not drunk like David, but she was just as tired. She lightly snuggled against David’s left shoulder.

“Well, Mr. Helpful, if you happen to see my mom tomorrow, you may want to avoid telling her you ordered the pork shank for dinner tonight. But also, you’ll need to avoid staying here until she is gone. It’ll stress her out, which will stress me out. Best for us to show her that discretion,” Naomi suggested.

“The pork was delicious! So tender! Your mom might have liked it if we had leftovers,” David said in a quiet voice, his eyes closed. “But it is all fine. We are bringing the big generator online this week, so I’ll probably be sleeping in my office most nights anyway.”

“You’ll still need to have dinner here with my mom and me occasionally,” Naomi added. “You said earlier tonight you had something interesting to tell me, when you were talking with Ben, remember? Can you give me a synopsis of what it is before we both fall asleep?”

David didn’t respond immediately, and Naomi wondered if he had finally succumbed to the alcohol and exhaustion.

He peered at her with one eye slightly open. “Oh yeah! Give me a few minutes to rest and gather my thoughts. It’s important I tell you something.”

The next sound from his mouth was a soft, grumbly snore. Naomi got up from the loveseat, located the soft blanket on the ottoman near the couch, draped it over him, and kissed him on the forehead. With careful precision, she gently removed his glasses from his face so as to not wake him up.

“Yeah, okay, Champ, I’ll remind you to tell me some other time,” Naomi said, knowing he could not hear her. Yawning, she made her way out of the living area toward her bedroom, turning off the few active lights along the way.

CHAPTER 4

HUNG OVER

David woke up in bed, the brightness of the bedroom indicating it was well into the daytime hours. He vaguely recalled having gotten up in the living room, his neck stiff and kinked from sleeping in a strange position necessitated by passing out on the loveseat. It had been twilight, he recalled, as his brain pieced together his autonomous movements in the wee hours of the morning. He must have used the bathroom and then slipped into bed. Still groggy but no longer tired, he looked over at his phone, which Naomi clearly had placed on his bed stand along with his glasses. It was eleven thirty in the morning! David swung his feet over the side of the bed and stood up. The hangover that was the inevitable consequence of the previous night's activities hit him. His temples pounded with each beat of his heart, and his mouth felt as if it were full of cotton balls and wallpaper paste. There was no avoiding the reality of his situation. He would need to tamp down the symptoms with acetaminophen and caffeine.

David threw on some sweatpants and a sweatshirt, then took his cell phone and glasses and made his way to the kitchen. After placing the excessively smudged glasses on his face, he opened his phone, which had received a flurry of activity during his downtime. There were a dozen messages on the device—some from his mom, and some from his dad, who'd tried to call him a few minutes before. *That must have been what woke me up*, David realized. The only message he bothered to read was the one from Ben:

How's the hangover? Rakesh and I are installing the sensor-interface module on the big guy right now. Are you planning to come in? We could use help getting it online.

David did not respond immediately, but put the phone down on the kitchen counter. After all, coffee was his first priority. The telltale smell emanating from the coffeemaker suggested he would not have to struggle to make it himself. He was delighted to see that Naomi had already made a full pot,

most of which was still sitting nice and warm in the stainless steel carafe nestled in the coffeemaker.

“Naomi, how I love you!” he said, pouring himself a cup and taking a long, satisfying sip. He turned and opened the cabinet door behind him, the one that served as a utility catchall for everything from scissors to sunscreen. David shuffled a few items around and spotted the plastic bottle he was seeking. He tapped two of the painkillers into his hand and swallowed them with a swig of coffee. He then noticed a neatly handwritten note on the front of the fridge:

David,

I made you some coffee. I figured you'd need it! As a reminder, I'm going into RI today to pick up my mom, in case your memory of last night isn't super clear. I am still keen on hearing what interesting information you said you'd share. Perhaps we can talk tonight? Love you!

—N

Crap! David had almost forgotten that he'd had this moment of truth hanging over his head. He refilled his mug with coffee, threw two frozen waffles into the toaster, and grabbed a yogurt from the refrigerator. There was no avoiding it now—he'd have to tell Naomi today, one way or the other. Her mother's presence would make that more difficult, but it would also mean she wouldn't be too confrontational. She wouldn't make a scene in front of her mom, not with the nature of the visit. *Think, think, think—what is the best possible way to handle this delicate situation?* he wondered as he spooned pineapple yogurt into his mouth.

He could just stay here today, which would give him a chance to rest up and feel a bit more normal, then have a live conversation with Naomi when she came home. *Hmm, in front of her mom...how would that work?* Besides, he needed to go to the facility today—Ben needed his help. He could call her from there later in the evening, as he remembered Naomi's mom was usually in bed early. No, that would be too stressful on Naomi; he knew she had an intense week at work ahead of her, plus the stress of her mom's visit on top of it. He could go to work and then just come by later to talk to her, but that would entail a lot of driving, and after what would be an undoubtedly heated discussion, he'd have to drive back to the house in Lexington. No, that wouldn't work either. He'd just have to put it off a day.

He picked up his phone, unlocked it, and began to type back to Ben:

Hangover is manageable, thanks for asking! I am eating something and need to get cleaned up, I'll be there in 2 hours.

David went to press send, and hesitated. He realized, for the umpteenth time, that he was approaching this problem from a coward's point of view. He was reminded of something he had overheard, sitting among strangers in his college cafeteria while pushing his supposed lunch around on his plate: *"There is no such thing as conflict avoidance, there is only conflict displacement,"* emphatically exclaimed some random guy he didn't know sitting a few chairs down from him. *"People think avoiding conflict is equal to peace, but it is not. The conflict will still exist and will need to be resolved by someone other than you. So, don't pretend that avoiding conflict makes you a good person."*

David remembered those words by Random Guy and referred back to them in his mind as perhaps the most poignant philosophical lesson that he promptly and consistently ignored. Avoiding a conflict will always displace it onto someone else. Dragging others in to solve your conflict is selfish and cowardly, and makes you the opposite of a decent human being. Thinking of the woman he wanted to spend his life with and the untold truth she needed to know, it was time to own the conflict he had created and then nurtured into this big, ugly mess.

He erased most of the message to Ben and began typing again:

Hangover is manageable, thanks for asking! I have something to take care of right now, hangover or not, you know what...I'll be there later this afternoon, wish me luck!

David took a paper towel from the holder on the counter and used it to scoop the recently popped waffles from the toaster slots. He ate them dry as he walked to the small bedroom that mostly served as his and Naomi's office. He grabbed his worn nylon backpack from its resting place on the floor behind the door, unzipped it, and took out his personal laptop, dinged and dirty but still in cutting-edge operating order. David unfolded the screen from the keyboard and booted it up. He searched for a coaster for his coffee mug, but seeing none in plain view, he opted to utilize a small notepad for the task. David munched down the remaining bits of the toasted waffles, sweeping the crumbs off the table and onto the carpet. He told his brain to remind him to vacuum them up later, knowing that would never come to fruition. The only surefire way for him to overcome his cowardice and hesitation was to ensure Naomi found out today—no matter the cost to his relationship with her. He was going to make that happen with his time-honored tradition of putting his thoughts in written form. He knew Naomi hated this sort of letter from him; she called it the opposite of productive conversation. However, under

the circumstances, this was the best way for him to share the information and be absolutely sure he would not find an excuse to not tell her again. His phone vibrated on the wooden surface twice in a row. It was Ben responding:

!

Good luck! See you when you get here!

“Yeah, I’ll need it!” David muttered upon reading the text. The task of writing this important note was made simpler by the fact that he had started this very letter a dozen times before. Over the next ninety minutes, he reviewed his previous iterations, cut and pasted the good stuff, cringed and deleted the awful stuff, and filled in the remainder of the words required to complete the task. After taking a few minutes to review it to correct his multitude of grammatical errors and ensure he captured his intended tone, he saved it a final time and hit the button to print it. After several frustrating attempts, he finally got the feckless printer and its buggy software to do its job, and it spit out four neatly typed pieces of printed paper.

David’s focus on the task did a sufficient job of clearing his head, and his mouth no longer tasted of metallic dirt. He shut down his computer, stuffed it back into his bag, tore off the few pages of coffee-stained notepaper, threw them into the small metal trashcan by the side of the desk, and retrieved the printed letter, which he folded twice, sharp and straight. He was feeling better about himself now, decisive and more responsible. *This is the right thing to do*, he told himself. *Good for you!* He wrote Naomi’s name on the front of the letter with a red felt-tipped marker he’d selected from the white mug with Naomi’s company logo that she’d repurposed as a penholder. Walking with the stride of a man on a mission, he went into the bedroom, placed the letter on the top of Naomi’s vanity, and headed for a much-needed shower.

The long, hot shower further renewed him in both mind and body. Dressed and ready to go, his empty coffee cup in hand, David glanced down at the letter one last time, suppressing the desire to rip it up and forget the whole thing. He made his way back to the kitchen, placed his empty mug in the sink, and poured the remainder of the coffee into a travel container for his journey to the facility in New Hampshire. His phone buzzed against his leg from inside the pocket in his jeans. David fished it out, wondering if it was his dad or mom trying to confirm that he was still alive. He’d have to call them on his way to work, he reminded himself. It was another message from Ben:

Getting some odd results from the run, there could be an issue.
Will you be here soon?

David typed a response:

Did you try turning it on and off? Always troubleshooting 101.
I'll be there in an hour or so.

The three dots appeared immediately, heralding Ben's forthcoming response:

Of course, we've done that several times! See you in an hour...

David tucked the phone back into his right front pocket and headed for the door. Looking one last time down the hall of the condo, he wondered how long it would be before Naomi returned and read his letter.

"Please don't judge me too harshly, Naomi," he said out loud to no one as he closed the door behind him.

CHAPTER 5

THE HEXADECAGON

It was a glorious afternoon to be taking a drive—a warm, sunny day with a bright-blue sky punctuated by a smattering of idyllic puffy white clouds. A day for driving with the windows and sunroof open to take in the fresh, early-fall air. At least, it would have been if David wasn't still nursing a dull headache and sensitivity to the brightly lit landscape. It was his fault for having had so much to drink the night before, he conceded. Earlier, he'd read a forecast that called for today to be overcast with light rain, and he was wishing that the weather report was correct, as he wished it was less sunny. He'd already popped a few more painkillers after stopping at a gas station convenience store for an energy drink and a bag of salty chips at roughly the halfway mark of his fifty-minute journey to New Hampshire. He'd accepted the fact that he would not shake off his physical malaise today, especially not if he was going to spend the next few hours working. In reality, he knew he'd probably end up working late into the evening and sleeping at his office. This was nothing new. Before the money came rolling in, he'd lived in the building in Cambridge where he and Ben had launched their venture. He now lived—at least on paper—in a house in a highly desirable neighborhood in Lexington, but he could count on one hand the number of days he had stayed there in the last month. When he'd decided to buy the place a year ago, it had seemed like a good idea. It was close to his mom's place, which he knew would come in handy as she aged. The perception was that there were few places in the world better than this corner of Middlesex County in which to raise children—whenever it was that Naomi decided to buy into the idea. It was also a great investment, as the area would always be a coveted place for well-to-do professionals to put down roots. But for all the money he'd invested in purchasing, gutting, and completely renovating the mid-century Colonial, he was never in any hurry to spend time there. As David took a left off of New Hampshire Route 128, the place he truly saw as home appeared on the hill above him.

The new home of Chashmal Technologies was an old manufacturing and R&D site for a military contractor making air defense systems. Sitting on four hundred wooded acres between Nashua and Salem, the sprawling campus once employed forty-five hundred people in its heyday. Since then, the contractor had moved much of its manufacturing to more Southern states, with their friendlier tax laws and workforces less controlled by the interests of labor unions. The entire campus was fenced in and consisted of seventeen separate buildings. In the roughly twenty-five years since the end of the Cold War, more and more of the buildings were abandoned. The entire campus had been empty for more than five years. To get it sold, the owners spent millions renovating the main building and a few of the adjacent ones to make the place more appealing. This meant Ben and David had, for all intents and purposes, several newly updated buildings ready for occupation. It would be a long time before they'd need to utilize all of them, but one of the advantages of the place was having room to grow.

The main road wound through the campus, completing nearly a full spiral on its way up to the large main facility at the top of the hill. Numerous side roads branched off to various buildings on the campus, nearly all of them currently in disuse. The drive was mostly wooded, broken up by an occasional building or the entrance to a parking lot. Behind the main building was the road that led to the other open gate, this one designed for truck entry. David wanted that gate closed, but since it was the only entrance where a fire truck could enter the campus, they had no option but to keep it open. At one point, the truck gate had its own security kiosk and a full-size, electronically controlled sliding gate. But there was little point of that feature at the moment, so the gate had been disabled in its open position.

David pulled into the small parking lot in the front of the main building complex. To his left was a six-story office building, and to his right were the buildings that constituted the main assembly hangar, which included the three-story engineering building where he and Ben had set up their office. The office building was a generic-looking squared-off thing with a face of pale concrete and green glass. It screamed dull functionality. The nicest thing about it was that the rooftop had been updated into a corporate oasis. In the center of the roof was a large patio area filled with tables where people could eat lunch. This patio also had a small kitchenette built in, and a few covered pergolas that had festive lights hanging from them. Ben was excited to hold meetings in this space, as its upscale and fun vibe beat any stuffy boardroom in the complex. But the best part of this rooftop sanctuary was the view. From up here, you had a 360-degree vista of the whole area. To the southwest, there was an excellent view of Mount Wachusett among the rolling hills that

dominated central Massachusetts. On a clear day, you could see all the way to Mount Monadnock to the west and the tops of the skyscrapers in Boston to the south. If you didn't know you were on a corporate campus, you could have easily thought the roof was the top of some high-end hotel. David had once said to Naomi, half joking, of course, that this roof was nice enough for them to hold their wedding and reception. That idea was a nonstarter, but Naomi did stop for a second to consider it.

Standing in opposition to the lovely rooftop was the stark engineering building. Its exterior was odd and ugly, with brutalist-style concrete sides that tapered top to bottom, giving the structure a harsh, off-putting look. This taper gave the windows an ingrown feel but did provide a bit of overhang that kept the strongest sunlight out of the rooms when the sun was high in the sky. For some reason, these brutalist buildings were very popular in the Boston area—the most glaring example being Boston City Hall, widely considered the worst municipal building design in the United States.

The engineering building was also very strange on the inside. It was a mishmash of rooms and corridors that seemed to have been designed through a collaboration between M. C. Escher and Dr. Seuss. It had a maze of stairwells, ramped hallways, and rooms that did not seem to properly connect with one another. David had gotten lost in the back end of the building on more than one occasion. The office and engineering buildings were connected by a tasteful lower-slung building that housed the atrium. The atrium was a lovely dark-gray granite offset with natural-looking white stone. There was a pleasant fountain along the back wall near the reception desk that was as nice to hear as it was to see.

David slid his card through the reader at the front door to let himself into the facility. The desk was empty, as Chashmal had not yet hired security guards. He and Ben were in negotiations to hire a private security company to provide them with guard service. David's footsteps echoed through the atrium, muted only by the fountain's gurgling. He made his way to the right, toward the actual working part of the facility. The building had an elevator, but David hardly ever used it. The thing was only three stories high, and the stairs were just down the hallway from his office space. The stairwell had a stale institutional smell. The metal and concrete echoed more harshly than the stone of the atrium, and the sound was less than ideal for his hungover-addled ears. David made his way down the hallway to his office, which he shared with Ben. It certainly wasn't that they didn't have the room for separate offices—hell, they could have set themselves up in separate buildings if they wanted. But because they collaborated on every aspect of the work on the energy generation, it was just more expedient to set themselves up in the

same space. Over the years, they'd grown comfortable sharing space with each other.

David and Ben's office once held the engineering blueprint offices and library for the military contractor. It was a large room, three times as long as it was wide, giving it a somewhat narrow feel. The room housed two large, heavy oak tables, which allowed multiple engineers to spread out the blueprints back in the day. David and Ben did not have a real use for both tables, which could sit twenty people each. But they were too big and cumbersome to easily move from the room. So one of the tables was still in place for the occasional meeting with the engineering team, and the other was pushed against a wall and was now used to hold the large-format printer and various equipment that had no other obvious home anywhere else in the office. Toward the end of the room, near the windows on the left and back walls, the space widened considerably, so that was where David and Ben had set up their desks. Their desks faced each other, with Ben's slightly closer to the windows on the back wall. There was enough space between them that neither man felt imposed upon by the other. David took up the lion's share of this part of the room, as he was also using it as his living space, a home away from home. Behind his desk, he had set up a low-slung platform bed with an elastic polymer grid-style twin mattress for those many nights he decided not to travel back to either of his places to the south. One of the old blueprint file cabinets now served as a mini kitchen with his various coffee-making apparatuses, a convection microwave, and an electric kettle. A small-format refrigerator-freezer sat next to it. The room already came equipped with a small lavatory, providing David (and by extension, Ben) with a toilet and sink for their private use. This was one of the aspects of the room that appealed to David from the moment he saw it. Next to the lavatory and close to the entryway door was a utility closet that had once contained shelves for various supplies and still had a deep, standalone utility sink on the far end; this sink now served as a convenient spot for David to wash dishes. To enhance the convenience of the office for his purposes, David had the utility closet updated by having the floor tiled, the walls painted, and a shower installed. There were plenty of other places to shower in the facility, but having a shower in his office saved David time and enhanced his privacy. For him, this office was damn near perfect.

The walls of the office did not have much in the way of decoration. Behind his desk, Ben had hung up a few printed copies of the important patents he and David held for the technology. A picture of the two of them standing next to Mabel 1 in the old building hung near the entrance to the room. The wall above the place where they pushed one of the large tables contained

framed copies of various articles written about them over the last few years. Another framed article hung on the opposite wall between the bathroom and former utility closet; it was an article in MIT's own technology magazine, and it discussed the supposed software that could amazingly predict both atomic particle location and stock fluctuations. The article was a complete fiction that made David feel dirty every time he gazed at it. He had no idea that when they made up the software lie to cover for the true reason they could *predict stock prices*, it would end up being a well-publicized fabrication. Marco and Derek were featured in the article and were understandably proud of it, so they'd framed a copy and given it to him and Ben as a gift. David had hung it near the bathroom to signify that it was total crap.

David dropped his work bag on the top of his desk and threw his backpack with a change of clothes and spare toiletries onto his bed. He was anxious to get down to the floor of the old assembly hangar, which was now serving as the home of the new full-size QEG machines. The half-eaten donut on Ben's desk indicated to him that Ben had not been back up to the office since he'd texted David hours ago. That meant something must have really gone wrong, David speculated, as he speed-walked out of the room and to the right toward the stairs leading to the assembly hangar. The hallway ended with two stairwells. To the left was an open space leading to a single set of stairs going down to a corridor with the door that led into the assembly hangar. To the right was a closed door leading to a compact set of stairs that led three stories down to a dusty hallway at the bottom of the connected outbuilding that housed the mechanicals and tanks for the various chemicals and gases once used in the manufacture of weapons systems but now used by Chashmal to house the enormous liquid nitrogen and oxygen tanks.

David hurried down the open set of stairs and used his key card to enter the assembly hangar. This door opened onto a catwalk that ran along the interior of the building. The hangar itself was massive, nearly as tall as the office building, with floor space large enough to hold eight football fields side to side. On the far end of the structure was an insulated steel roller door that gleamed in the light of the building. It covered an opening that was nearly four stories tall and almost spanned the entire width of the building. It was probably designed to allow the completed antimissile and aircraft defense systems to be rolled out in one piece. The side wall contained several smaller roller doors that led to the part of the parking lot where freight deliveries were made. Most of those doors were now locked off and would likely be walled over once the building was converted into one of the largest energy-generating facilities on the East Coast.

In front of him, from his vantage point on the catwalk, was the star of the show—the biggest energy-generation machine they had built so far. It was twenty-five meters tall and twelve meters wide, and its shape was similar to the London skyscraper colloquially known as “the Gherkin.” They had made good use of the large doorway at the end of the hangar for its assembly. The machine looked almost organic, a perception enhanced by the giant steel frame on which it rested, which had huge leglike structures. This frame would hold the assembly for the lasers, the sensors, and the apparatus for powering the two magnetic bottles in the machine. The giant copper-beryllium tubing that made up the heart of all of these instruments had to be assembled in one continuous piece. The smallest deviation in its inner shape could dramatically drop the efficiency of the energy transfer and cause a dangerous hot spot within the generator. This machine had a coil of this tubing that was twenty kilometers long. The tube was manufactured in a different building, which sat at the other end of the large parking lot behind the facility. It was the second-tallest structure on the campus and had once held forges for metalwork and steel stamping machines three stories tall. Rakesh, for all his faults as a human being, was a brilliant engineer who’d turned this old-school metalworking shop into a high-tech facility capable of producing five hundred meters of this precise silica-coated tubing in a day. Rakesh had set up automated robotic systems to bind and coil the tubing as it was produced. Once completed, the enormous coil was transported on its side, very slowly and carefully, across the parking lot on a large, cushioned skid pulled by two small electric tractors similar to the ones seen pulling luggage trains around an airport. After going through the giant door on the end, the skid’s pneumatic devices gently pushed the coil into its upright position. From there, the machine was assembled around the coil. Running up the sides of the completed device were sixteen support structures made of brushed austenitic stainless steel, which was atomically arranged so as to not be magnetic. These structures were nearly a half meter wide at the bottom but tapered as they ascended, creating a crown of steel points at the top of the machine. In between these support structures were panels of more stainless steel in a glass ceramic fiber frame. On the interior of these panels was a mesh of copper wire that would further protect the machine from sending out an electromagnetic pulse, or EMP, that could debilitate the electronics in the area, including its own sensor array. The outside of these stainless steel panels was covered in a nonconductive polymerized paint in a flat black color. Even the bright overhead lights did not seem to penetrate the nonreflective quality of the paint. The deep nothingness of the painted panels contrasted intensely with the off-white color of the ceramic framing. This gave the machine an

imposing, otherworldly look that made it seem like something found at a crashed UFO site. David smiled every time he saw it, as if it were the first time.

At the bottom of the structure, which was sitting on a large steel frame that set it off of the floor, was the large cylindrical housing for the laser arrays and various telemetry sensors to monitor the device's performance. At the moment, it was partially disassembled, as David could see a number of the laser modules on tables nearby and the feet of at least one engineer sticking out of the sizable housing. Something was definitely wrong.

"Crap!" David said with a glower.

David hurried across the catwalk and down the steel grid stairs to the floor. Between the engineers' chatter and the droning of an electric screwdriver, no one had noticed his arrival. Ben was sitting at a small metal table set up near the structure, staring intently at the computer screen in front of him. The cable running from the computer to the innards of the instrument told David they were having some sort of sensor issue. David tapped Ben on the shoulder, and his friend immediately shuddered and turned his head to look at him.

"Hey, you scared me! Look who's back from the dead! How's your head treating you?" Ben asking in a happy, teasing voice.

"I'm fine, thanks to hydration, painkillers, and caffeine. What's going on here?" David responded.

David could see from the screen that they had started up the machine a few times to get base readings from the sensors. The customary spike in activity on the chart was followed by flat lines indicating the machine's dormant state. Measurements had been taken of the structure's integrity and any stress being created on the inside of the device.

But these weren't the only readings they took. Shortly after they discovered the time anomaly, Ben had devised a way to probe the system to see from how far into the future the machine would receive its signal. At first, this was done using timestamped weather data transmitted by the National Weather Service. The data was pulled from its online source, and it was sent at regular intervals from the computer operating the respective machines. Ben also devised a second system that allowed them to monitor the actual operation of the machine in the future. It sent a local signal from the operating computer itself through the time differential. This short "ping," as they came to call it, contained a timestamp of the moment in the future the signal was sent; just a tiny amount of information. It allowed David and Ben to know if the instrument itself was operational at that point in the future. Of

course, Ben was able to simply calculate the estimated time differential based on the machine's size, power, and other factors.

Ben sighed and tapped a finger on the last spike shown on the brightly lit machine. "The system is holding the vacuum fine, and there is no mechanical stress in the system. But the computers upstairs are not registering any activity." Ben pointed up toward the wall behind them. "It is as if the machine is not even on, well, in the future."

Ben was pointing at the top set of windows on a structure that jutted partially into the hangar. There were two rooms on top of each other, informally known as the Control Tower. The lower room, which was accessible by a door at the end of the catwalk David had just been on, was originally utilized by the operations people to oversee the manufacturing activities. The upper room, once an observation area for so-called important people, now contained the most secure part of the entire facility. It was also the likely destination for them if they were to solve the mystery that Ben and the engineers had been working on all day. Ben stared up at David, who had his right index finger and thumb pressed together and placed against his bottom lip. Ben knew this was David's contemplation stance, which meant he was probably at a loss as well. David readjusted his glasses, which had slipped down from the bridge of his nose; pulled his hand away from his face; and looked down at Ben as if he were about to speak. He didn't have the chance.

"Hey, there's the man of the hour! Good of you to join us so late in the day! We could use your brain on this if it isn't too hung over!" said Rakesh in a too-loud, too-jovial voice. He was walking over to Ben and David. He looked oddly happy for someone whose baby wasn't functioning as designed. Rakesh had spent the better part of the spring and summer assembling the machine, working long hours, and not taking a day off in months. He was wearing a shiny tracksuit in an awful red-orange color that made him look out of place, as if some aging celebrity had walked into this delicate engineering project off the street. He was as sweaty as all hell—David supposed this was appropriate given his attire, but he also knew this meant Rakesh was stressed out over the situation, since he clearly had not been jogging in that suit, recently or ever. He took comfort in the idea that Rakesh was stressed, as it meant he was taking the situation seriously.

"Hey, Rakesh, my brain is fully functional, thanks for asking. What's your assessment?" David asked.

Rakesh turned back toward the disassembled laser assembly and pointed at a low, flat gray box with a crazy array of wires sticking out of one end. He looked back over his shoulder at David.

“I thought maybe the main sensor assembly experienced an overload issue when we turned the Hexadecagon on, but we pulled it, and it is perfectly fine. I suggest the only way to know if there is an issue is to start ’er up and measure any electrical output. It is not as if the thing is gonna blow up. Worst-case scenario, it doesn’t generate power, and it starts to heat up and the lasers automatically shut down,” Rakesh explained with the calm, authoritative voice of someone who knew his stuff.

David didn’t much care for the fact that the engineers had named the thing Hexadecagon just because it technically has sixteen sides. He wanted to remind him and the other engineers that this name wasn’t going to stick. But in lieu of a better name, and considering how irrelevant this topic was to the situation at hand, he pushed the complaint aside. David knew Rakesh was on to something; the only way to know if the machine worked was to turn it on. But that still didn’t explain why there was no telemetry upstairs.

“How long will it take your team to put the machine back together?” asked David.

Rakesh paused for only a second, then replied, “We can get it up and running in two hours with a thorough systems check, no problem! This is a kick-ass group of engineering rock stars!”

The engineering team, which were dedicatedly working away most of their Sunday, consisted of two young engineers named Olivia Malley and Amar Farooq, as well as a master electrician named Ray Winters. Ray was likely the oldest person at the company and had been working as an industrial electrician in power generation plants since David was in diapers. Originally, David was hesitant to have Ray on the team, as David had a bias against a blue-collar guy with no college degree. But Ray quickly proved to be indispensable in knowledge and experience. David had spent very little time around people without college educations—often catching his mind assuming they were, well, *lesser*—before he reminded himself he should stop being such a friggin’ elitist snob. Amar was a tall, handsome man with the sort of thick black beard that David would kill to grow. He was fresh out of school and always seemed eager to learn from the more experienced engineers, as well as put in the time needed to get the job done right. It was no surprise he was here today. Olivia was a pretty and quiet enigma. She always seemed to have a few locks of her curly red hair in front of her freckled face. She was a materials engineer whose input was crucial to overcoming the design challenges for scaling up this largest of the machines. She was, like everyone here, very competent at her job. But still, there was something off-putting about her. It wasn’t that she was quietly introverted. Hell, David himself was the alpha introvert at the company. The thing that made people uneasy when

dealing with Olivia was that her reserved nature seemed like an act to cover up her real personality. Both Ben and Rakesh had commented about this to him on separate occasions. David did not ultimately care, so long as she got her job done. However, since this was a company with big secrets, having someone around who wasn't what they seemed was worth noting, at least.

"Great! Ben and I will look into the other issue upstairs. Take your time and make sure our baby is running correctly—no need to rush and make a mistake," David suggested in a strong but positive manner.

Amar and Olivia noticed David's arrival and eagerly waved in unison at him. David gestured hello back at them with a slight hand wave worthy of royalty, then turned back toward Rakesh.

"Anyway, is there anything else I should be brought up to speed on, Rakesh?" asked David.

"Nope, we're good! Did you end up telling her on the way home in a bout of drunken honesty?" Rakesh replied.

"I did not, Rakesh," David answered flatly.

Rakesh smirked out a reply. "Eh, I figured as much; otherwise, you would have ended up sleeping here last night."

"No, one of us actually got to go home with the person they took to dinner!" David retorted in a still-flat voice. Ben snorted at the quip and put his hand on David's shoulder as a sign to wrap this up.

"Ouch! But a good point!" Rakesh replied, throwing his hand over his heart and clutching the fabric of his garish track suit, feigning a wound. "Sarah was definitely not into the dinner party—or me, as it turns out!"

"I thought her name was Sandra," Ben said while simultaneously regretting his involvement in this useless conversation. It was David's turn to snort out a laugh.

"Oh yeah, Sandra, good memory, Ben! It wasn't as if we had enough in common to maintain even a five-minute conversation, so no big loss. She was an eyeful, though, which was nice for a night!" Rakesh said, never dropping his good-natured tone.

"Oh brother, that was a first date? To a dinner party with a bunch of strangers? Weird choice, Rakesh!" Ben replied.

"Well, I hope you got paid well for your babysitting gig, at least!" David added.

"Okay, that's enough of that! You can work more on your comedy routine later, David; we have a problem to solve right now," Ben said, pulling himself and his partner out of the conversation.

Rakesh had chuckled at David's comment, taking it as humor rather than an insult. With all he had been through in life, he was not one to get a

bruised ego over something this trivial. He gestured goodbye and turned back toward his engineering team and the reassembly process.

Ben locked and closed his computer, detached the cable from it, then tucked it under his arm. He and David made their way back toward the metal stairs and up onto the catwalk. At the far end of this section of the catwalk was a door leading into the lower floor of the Control Tower. They entered the room, and the motion-activated lights flicked on, welcoming them to this newly renovated space.

This lower level of the Control Tower had three tiers, each a few meters higher than the one before it, allowing multiple groups to see out the large soundproof windows that spanned from floor to ceiling. In one corner were the remnants of an old spiral staircase that led to the upper room of the Control Tower. The opening on the ceiling had been filled in, and all that remained was the old center pole for the stairs.

Ben and David both agreed that the room reminded them of the press room overlooking Fenway Park, and in reality, they had designed the room in this way for similar reasons. They had spent the last few months readying this space as the control center for their company's energy-generation operations. The first order of business was making the space more aesthetically pleasing. The room had been an outdated mess when they'd first purchased the facility. The men gave their facilities manager a generous budget and had tasked him with making the room palatable to work in. Gone were the institutional colors and hard surfaces. They were replaced with light wood and airy colors, which made the room less oppressive. Ben and David's plan was to eventually have ninety-six machines in the giant room outside the windows, producing enough power for half of the New England region. By the time the project was complete, an entire crew of people would be needed for monitoring the operation. They'd be in charge of shutting down the machines to do routine maintenance, or adjusting the power input based on need, or a hundred other issues. This control room needed to look cheerful enough so that it wouldn't inspire its inhabitants to contemplate suicide for having to work there. Everyone involved was pleased with the results; the room was now modern and livable.

Ben and David hurried through the room and out into the second-floor corridor that connected it to the rest of the engineering building. The upper control room was not straightforward to reach from here. It was easiest to access from the large conference room on the third floor, which was convenient for them, as it sat across the hallway from their office.

"So, you left her a letter explaining our whole operation, huh?" Ben asked David as he opened the door at the end of the hallway.

“Well, not everything, but the gist of it, yeah,” David responded as they started up the stairs.

“Did you hand it to her and make her read it in front of you?” queried Ben.

“No, Naomi is out for the day—she went to collect her mom at the train station in Providence and then they were going out to lunch with some old neighbor of theirs. I left the letter in the bedroom for her,” said David.

Ben pushed open the door at the top of the stairs and turned left into the corridor. “So I think it is safe to say she hasn’t gotten home to read it yet, then.”

“What makes you think that?” David asked, turning right.

“Because she hasn’t driven up here and killed you yet!” Ben answered, half serious.

“I’m counting on a more reasoned response,” David said, his tone matter-of-fact.

“Well, that ship most likely sailed in the years you kept this from her. That said, she loves you deeply—we all can see that. But I’m sure you’ll be all right in the end. Naomi is rational. No matter what, I’m glad you finally came clean, buddy!” Ben assured David as he threw open the double doors to the corridor.

“I appreciate that, Ben! I shouldn’t have avoided telling her, but it is done now. There is no turning back,” David responded.

CHAPTER 6

THE LETTER

Naomi stepped through the door and into the condo, which was dimly lit by the last rays of the twilight sun. She was mentally and physically exhausted from her day with her mother. Luckily, her mom was as well. Naomi had expected the rest of the evening to be mellow, as both ladies were talked out at this point. But she was wrong.

“I’m going to change, lie down on the bed, and call your father, dear,” her mom, Rachel, announced.

Naomi replied, “That’s fine with me. I need a bit of alone time to unwind as well.”

Naomi poked her head into the kitchen and found the note she’d left on the refrigerator lying on the counter next to the coffee carafe and an empty cup of yogurt, which had toppled over from the weight of the spoon in it.

“Way to clean up after yourself, David,” she said out loud in a flat, sarcastic tone.

“What’s that?” her mother asked.

“Oh, nothing, Mom, I was talking to myself,” Naomi yelled to the other room.

“They’ll call you crazy if you do that too much, Naomi!”

Naomi chuckled at her mom’s amusing comment, mostly because she always said things like that to her when she was growing up. She put down her keys and her phone, tossed the yogurt cup into the recycle bin, loaded the spoon and coffee mug into the dishwasher, and headed for her bedroom. It wasn’t even seven p.m., and she was ready to go to bed for the night. She suspected she and her mom would be hungry for a snack in an hour or two. They had eaten a big lunch at some nice Italian restaurant on Federal Hill in Providence, but that had been several hours ago. Maybe later she’d pop some popcorn and watch some trashy reality show with her mom, just like they would do when she would come home from law school for a visit. She went into her room and closed the door. Naomi had just hung her jacket in her closet and was heading for the bathroom when she saw the letter and stopped

in her tracks. The neatly folded paper with her name in red on it, sitting on the edge of her vanity.

“Frik!” she said with acid already in her mouth. She knew that if David, hungover David, sat down and wrote her a letter to explain something, it would be on a topic she would find annoying and tedious. She left the letter where it was and continued her journey to attend to her more immediate issues. If she was going to get aggravated and have to spend time formulating a response to his points in her head, she was going to use the bathroom and change into comfy clothes first. Sometimes when David wrote these letters to her, she would grab a notepad and pen and write down her comments and counterpoints as she read through them. But not tonight. Tonight, she was too tired to deal with turning the letter into homework.

“Frik!” she repeated.

Naomi returned to her closet, hung up her pants, threw her shirt and bra into the hamper, and put on soft, fuzzy pajamas and her robe. She approached the bed and arranged the pillows into a tower she could use for sitting up and reading. Naomi could feel the stress building in her from the very presence of that letter sitting across the room on the deep-brown tabletop of her favorite piece of furniture. She picked up the empty glass sitting on her nightstand and carried it to the rightmost sink in the bathroom, the one she exclusively used. She would sometimes get annoyed when David would wash his hands or occasionally spit out a cheekful of mouthwash into *her* sink. She realized that such annoyance was silly and a bit trite, so she decided never to articulate her feelings on the matter to David. But she didn’t know why he couldn’t see the order in each of them simply using separate sinks. After rinsing the empty glass a few times, she filled it to the top and chugged down half of it while returning to the bedroom.

She grabbed the letter en route and made her way back to her side of the bed, placing her glass back on the oversized porous stone coaster. Sitting on the edge of the bed, Naomi stared down at the letter and sighed. David’s letters could best be described as meandering. That was because they were written the way he talked: in prose that circled the main topic for a while before actually getting to the meat of the subject. Then, David usually repeated the point he wanted to stress, as if repetition were the key to convincing Naomi to adopt David’s point of view. The letters contained information that was designed more to justify his opinions than to explain them. They customarily started with a boatload of flattery, which Naomi liked to some extent. But she noticed the more obsequious the letter, the more ridiculous or annoying she found its primary content. Of the two dozen or so letters that David had given her over the years, she estimated only six of them really helped her gain

insight into the man she loved or, more importantly, swayed her to think another way on some topic that the letter addressed. Most of the letters were an unnecessary waste of her time, as they explained points of view that she already knew he had. The worst of them irritated the shit out of her with logical fallacies, bad reasoning, and conclusions not supported by evidence. The back of her brain told her this letter would end up categorized among the worst based on the weird vibe she got from David's conversation at the restaurant yesterday. Naomi slid herself in place on the bed, threw a blanket over her legs and feet, and unfolded the letter and began to read:

My Dear Naomi,

Last night I told you I had something I wanted to tell you, something I should have told you a long time ago, but the moment never seemed right. I know I should have told you about it right when it happened over three years ago. I admit it's my fault for not doing so, though I never set out to keep this information from you. You are the most important person in my life. I am so fortunate to have found you and to have somehow convinced you to spend your life with me. From that first date over a beer at Meadhall, I knew you were the woman I would want to spend my life with, but I figured I'd screw it up somehow. I fear that this is the moment. I know you are an amazing, smart, and beautiful woman and that you could handle any bit of information I might share with you. I know you deserve me to be open and honest with you. I hope you will understand how this situation got away from me and how the longer I waited, the harder it became to tell you.

As you know, Ben and I devised a way of generating electricity using a method we call Quantum Energy Generation technology. You know how passionate we were, and still are, about finding a way to solve the world's need for increasing amounts of energy with less negative impact on people and the planet. I still believe QEG is the way forward to that honorable goal. But here's the thing—Ben and I discovered that there is a feedback signal embedded in the energy-generation process. From the first moment we turned on one of the initial working prototypes, we noticed it. We began exploring the phenomenon and learned that the signal was somehow being generated before the energy wave itself. We were able to pulse the signal in a way where we could read data generated from it. We discovered

that the data we were reading was actually generated before the time of the energy itself. So it seemed that we had invented a way to generate and collect information from a future point in time. Since this unintended residue of our energy research allowed us a window into events that had not yet happened, I suppose you can say we invented the closest thing to a time machine that has ever existed.

Ben and I agreed that we needed to better understand the nature of this phenomenon before we revealed it to anyone. Even a hint of this idea getting out to the public could have discredited our more important energy work or, worse, created panic over the idea that someone had invented a scientifically accurate crystal ball. Since the first iteration of this discovery only allowed us to glimpse a few seconds into the future, we weren't sure it was even repeatable. And since science relies on repeatability as proof, we needed to test this process in the next few QEG devices. What we found was the larger the instruments we built, the higher the energy output of the instruments, and the larger the gap became between the current time and the signal from the future point. By the time we brought the sixth-generation instrument online, we were able to receive data from almost nine hours in the future.

But the project was expensive, so, facing the need for additional funding, and with less progress than we'd anticipated toward our technology leading to a sustainable and clean energy solution, we needed to make decisions. It had already been decided that instead of going through the grant process again, we needed to turn the venture into a private company, as we were convinced we were close to a breakthrough. Ben and I also decided that, because of the sensitive nature of the science, we needed to maintain control of the entire process. I'm sure you'd agree that both the QEG technology and the residual temporal technology are too important to put in anyone's hands but our own. So it was decided that we could solve our financial problem on our own, with the technology itself.

We turned our attention to building an instrument capable of getting a signal from over thirty hours in the future. We carefully set up the future data stream to give us information on the results of stock prices, thanks in no small part to software written by Karen. Seeing stock data from over one trading day

in the future proved to be extremely useful information for making trades. You recall we had met Marco and Derek at that wedding for one of your colleagues about that time. I had told Ben about them and their investment and financial services company. We decided we could partner with them, feed them stock information, and, in turn, create wealth we could use to further our research.

I accept that I should have told you the truth about the whole situation by this point, before we took this step to exploit our technology for direct financial gain. I had convinced myself that it would make you party to a potential crime. I did not want you liable for behavior that could cost you your law license. So I told myself that it was better to withhold the information from you. I also concede that part of me was worried you'd talk us out of the plan.

Anyway, we convinced Marco and Derek that the stock-pick information we provided to them was a result of subatomic-particle tracking software Karen wrote for the experiment, adapted to track subtle changes in stock information and make predictions. We fed them just enough bad stock tips to make the information and our story about where the data had come from seem plausible. The plan worked well, and we received hefty payments for our stock research from AzimuthView Financial Planning. They also invested our money for us, and we quickly made millions for Chashmal and for us personally. Providing them with excellent returns allowed them to attract a large group of well-heeled clients, mostly the C-suites of the biotech and software technology companies in the Boston area. That win-win allowed Marco and Derek to form their VC company that has financed our expansion. I am confident that by this time next year, because of our decisions, we will be on the cusp of revolutionizing how energy is created and delivered to the world. With cheap, clean, abundant energy, world poverty will drop and all of humanity will improve.

I know this isn't an excuse for the lie of omission I have been perpetrating for years. Or for the direct lies about how we were coming up with the data for Marco and Derek. I suppose I have been lying to them as well, but I can't get worked up about that. I also see that this makes all the money I have earned over the last few years—along with the buying of the condo, the house,

and so forth—possibly seem ill-gotten to you now. I have been feeling immense guilt over the lies; you deserve better.

I regret waiting this long to reveal all this to you. There were so many times I wanted to tell you the truth, just to take the coward's way out at the last minute. I did that again last night on the car ride home. I may not have set out to invent a temporal wormhole, or whatever this phenomenon is, and I certainly did not expect to exploit such technology for financial gain, but it seems I did set out to deceive you by not sharing this with you sooner.

I love you more than anybody or anything in the world, and I should have used that fact to gather the courage to share this with you from the beginning. I am asking you for your forgiveness. I understand this is a lot to process. When you are ready, I will be more than happy to answer any questions you may have about the technology. Until then, I beg you not to give up on us. I am grateful for your partnership each and every day; you make me want to be a more honorable man, even when I fail you. If our relationship ends over this, know that I understand it is entirely my fault. I hope that isn't the case, though. Please don't let that be the case!

Love forever,

David

Naomi tightly held the last sheet of paper in her hands as if it were pushing against her to take flight. As she read, her white-knuckled grip on the letter made her hands sore and strained. Naomi's brown eyes were shaking with anger as she stared intensely at the last of the words, like she expected the paper to burst into flames from her seething gaze.

"David, you friggin' bastard!" she said firmly, but in a quiet voice. She had kicked the blanket off halfway through reading, her body heating up with the fury building inside her. Naomi threw the last page onto the right side of the bed, where she had placed the other pages. *His side of the bed! Well, maybe no more*, she supposed. Throwing a single uncrumpled piece of paper is one of the most unsatisfying things in the world when you are angry. The paper left her hand with downward force, gained air resistance, then fluttered down next to the rest of the pages in a soft dance.

"Dammit!" she said, just as firmly, but louder. She was a ball of unfocused rage because the object of her rage was probably a state away working on his

damned science project like some middle schooler who covets a meaningless first-prize ribbon.

She looked around at the cool sea-green-toned walls and out at the skyline-lit floor-to-ceiling windows in this tower-top palace he'd bought for them with money earned by crapping all over the timeline. *He's no better than a seedy ex-con with a comb-over who fixes horse races for gambling gains!* she thought. She jerked her left hand out toward the nightstand to grab her phone and use it to channel her fury toward the man who'd initiated it. But the phone wasn't there. Instead, she toppled over the glass of water that she had forgotten was there, spilling its contents across the table and onto the carpet and the bed's comforter. She screamed out loud, picked up the glass from the floor, and hurled it across the room with the thrust of a relief pitcher in the bottom of the ninth. It hit the far wall and shattered with a resounding crash, but only after it had grazed the edge of her most cherished possession: her carefully restored vanity.

"Shit!"

Naomi jumped up from the bed and had raced three-quarters of the way across the room before her legs registered her brain's warning about the glass and her bare feet. Stopping in her tracks and then proceeding to the left, she popped on a pair of slip-on sneakers from her closet. Her feet now protected, Naomi returned to the now scuffed-up and scarred area of wall to examine the vanity, running her fingers down the fresh dent in the edge of its tabletop. She was overcome with a new wave of anger—this time directed at herself. Wiping the just-forming tears of seething wrath from her eyes and suddenly feeling very lost, she refocused on the genesis of her anger and confusion. With a quick realization, Naomi turned around and flew from her bedroom, down the hall, and into the kitchen, where she had inadvertently left her phone next to the sink when she was cleaning up after that bastard a short while ago.

Her mother called out from the guest bedroom: "What going on out there, Naomi? Did I just hear a glass break? It was an awfully loud noise! Is everything all right, dear?"

"No, Mom, everything is definitely *not* all right!"

CHAPTER 7

THE PICKLE

David grabbed the key card that was clipped to his belt, stretching it out on the cord of its retractable lanyard and pressing it against the glass rectangle next to the door. He let the card go, and it snapped back into place with a satisfying zip. He and Ben had made their way into the upper control room. It was by far the most secure place on campus. It was currently the only room in the whole place that required two-factor authentication to enter. David looked down at his phone and entered the authorization code into the keypad. The lock clicked and buzzed, and the door opened a crack.

They entered the upper room of the Control Tower. It had the same footprint as the room below, but the lower ceilings and single level made it seem much smaller. Back in the day, this room would have hosted VIPs from the military and DC political class, as well as bigwigs from the company itself. Couches along the windows would have given all these seemingly important people a vantage point on the manufacturing of the weapons systems below. The rest of the room was filled with conference tables, a few display cases that had once held company memorabilia from various past wars, and a decent-size wet bar against one wall. This room had also benefitted from a similar refresh as the room below it. Before the renovations, you could still smell the cigar smoke embedded in the paneling on the walls. Ben still regretted having removed the bar. The upper control room held a half dozen computer stations, with room for many more. Near the corner where the spiral staircase had once emerged from below sat two server racks. These servers were separate from the main servers in the basement of the office building. They were currently used to store data related to the time-displacement phenomenon Ben and David had accidentally created. It bothered them, especially David, that they did not have a provable scientific explanation for the process that allowed them to collect data from the future.

This upper room would, to the outside observer, have a similar mission to the room below it. It was easy to explain that the room's purpose was less about the energy generation and more about the physics of the generation

process. That was actually true, as the complex process involving particle physics and quantum mechanics was constantly under scrutiny by the scientists and their team, in order for them to improve and understand the process. That also allowed them to hide the morally questionable fact that they were acquiring information from the future in plain sight. The men conjectured that if their own employees never discovered the well-hidden purpose of the room, neither would the outside inspectors who would scrutinize this facility.

“I was wondering: Why was Naomi picking her mom up in Providence? She lives on Long Island, right?” Ben asked David.

“She is staying with Naomi for the next couple of weeks or so. They are going to be starting the wedding planning process, apparently. Her mom took the train to Providence so she could meet with a friend who lives there,” David replied. He sat down at the computer workstation uncreatively labeled “Workstation 2” and began the log-in process.

“Ah, you get some quality time with Rachel, how nice!” snarked Ben.

“Yup! Hoo-boy, I sure am excited to have my future mother-in-law living with my girlfriend in our condo and not be able to stay there for the duration of the visit,” added David in a loud, sarcastic tone, his eyes rolling back in his head.

“Oh, poor baby, Big D! My in-laws have been living with me since before Anya was born over six years ago. It seems like it is more their house than mine. Old-school tradition says I can’t even speak up about it either—it would be an insult to my elders. I even offered to buy them their own house, or build one next door to the new place. But no, they like being under the same roof as their only daughter and their grandchildren. So excuse me if I can’t conjure a ton of sympathy for you!” replied Ben while dragging a second chair to the computer station.

“Oh yeah, I keep forgetting that you have to deal with that; my situation isn’t such a burden in comparison. And for the trillionth time, don’t call me that!” David responded, feeling some obligation to be annoyed by Ben’s use of the dreaded nickname.

A few clicks, a command line entered into a `c:` prompt, and a password later, and they were into the software designed to acquire the future data from the machines. In theory, they could now access any of the machines that were hooked up and look at the data the instruments were collecting. Since the purchase of this campus, Ben and David had judiciously moved the machines from the old Tool & Die building. Because the tubing inside the machines was sensitive to bumps and temperature changes, the machines had to be carefully packed up and brought here with the least amount of jostling. This was a herculean feat in light of the local roads being more

pothole than asphalt. The fact that some of the later versions were quite large did not help either. One of the machines, Vortex 3 better known as the Hourglass due to the shape of the coils inside its structure driving its outward appearance—was nearly ten meters tall. The only feasible way to ship it was on its side on a wide-load truck. It arrived a nonfunctional mess. Being the largest and most efficient machine to date, David and Ben spent the better part of three months rebuilding it. It now sat in one of the old laboratory spaces in this building and was used to power the entire campus. When it was operating back in Cambridge, Ben calculated that the Hourglass was able to *see* four years and nine months into the future. This would have made it a bit impractical to be used for stock picks, especially based on the lie they'd sold to Derek and Marco, so they never collected the future data from it. Shortly after it was built, they decided to buy the New Hampshire campus and knew they'd be moving the behemoth machine. As such, Ben and David didn't even bother having the Hourglass connected to the subsystem that transmitted and read the timestamp *ping* from the future. As David said at the time, they were in the energy business, not the fortune-telling business. The other machines currently active in the facility were Mabel 6, capable of generating data from almost nine and a half hours in the future, and Mabel 8, which saw nearly fifteen days into the future. Mabel 8 was the current machine being used for stock picks, so David and Ben took special precautions with it. They hid the machine in an old steel tank plopped among the other steel tanks used for storing liquid nitrogen in the attached storage building. It output its data onto its own separate computer, also hidden in the tank storage area. Once a week, either Ben or David made the trek down the back stairs near their office and in through a banged-up door that led to the tank area to collect the stock data. Rakesh and Karen also had access to the computer and instrument but were never tasked with acquiring the latest sure-fire stock picks. Karen flatly refused to be involved with that level of the subterfuge, and Rakesh had proven to be untrustworthy with the job.

Ben was anxious and fidgety. He was zipping and unzipping his light-gray hoodie to burn nervous energy as David accessed the data generated from the machine Rakesh called the Hexadecagon. But, there was nothing to see.

“Well, you're right, nothing here indicates we are receiving data from this machine in the future—we definitely have a connection, correct?” David said, staring at a screen void of information. Both men knew that even if they weren't pulling nefarious stock data off the machine, it should still be sending the *ping* that indicated the lag between the two output streams.

Ben opened his laptop and pulled up the start-up logs from earlier in the day for the machine. When it was activated, the sensor arrays picked

up the activity and sent hundreds of readings per second to the computers, measuring everything from temperature to magnetic flux. With the other machines, Ben and David found that as soon as a machine was hooked up and turned on, it would start receiving information from the future. It made sense; the machines could not produce data if they were not on. Still, it bothered them that the machine had to be complete and functional in order for the process to start. They speculated it was simply because the data would have nowhere to go otherwise. Ben's calculation predicted that in this big machine, temporal lag would be somewhere between nineteen and twenty years.

"So you saw this data before, when we were downstairs: the machine was turned on at 12:05 today and remained on until 13:09. During that time, all the other data you'd expect to see was collected on the operation of the machine. The machine was turned on again at 13:22 and back off at 14:00. Still nothing here."

Ben continued, tapping at the empty screen in front of David, "This last start-up log indicates the machine was yet again activated at 14:43 and turned off once more at 15:01. That's when we pulled the sensor array."

"So maybe the machine was turned off at some point. It could be that we improved on the technology and all these instruments are no longer in use. Besides, as long as we can still collect energy from the machine in real time, the lag is incidental. I mean, the technology would be useless if we turned it on and had to wait months or years to start collecting half the energy," David responded.

David moved the mouse around and clicked through on a few other tabs on the screen. "You know, Ben, we said we weren't going to bother including the technology for reading the time signature from the nearly hundred generators we are going to pack into that hangar. Maybe, at some point in the future, we just turn off those sensors, since collecting the data was a waste of time. We have no use for stock tips from nearly twenty years in the future, after all." David paused to think. "Though, it would be fun to see what the hottest stocks of the 2030s might be; I bet they are companies that haven't even been founded yet!"

David readjusted his glasses, partially because they had slipped down the bridge of his nose again and partially because it was a nervous habit he tended to exhibit when was getting tired. He studied the information on the other open tabs.

"It looks to me that Mabel 6 is working just fine. We are receiving the ping from its temporal lag. I think this is nothing, Ben," he added.

David's calm demeanor relaxed Ben a bit. Ben peered carefully at the screen; Mabel 6's lag output read 9h-27m-12s-36ms, with the reading fluctuating by a few milliseconds here and there. He let out a deep sigh, and his mouth curled into a little smile.

"Perhaps we shouldn't have built it upside down! Maybe the time-diffusion aspect only works in the direction of gravity!" Ben chuckled.

Originally, all the machines had been built with the laser arrays sitting at the top of the machines, with the collection of the electrical output conducted at the bottom. A year ago, Ben began to wonder why they were building them this way. He conjectured that the human brain was ordered in a way where "top to bottom" was how we visualized things. Humanity's major writing systems had no consistent right-left orientation—some ran one way, some the other. But they all ran down the page rather than up. So it might just seem like the natural order to things for the human mind, a residue of the unconsciously observed effect of gravity, no doubt.

However, with each iteration, the machines became bigger and more powerful, and the size of the laser array grew. It was the only part of the device that required regular maintenance, as the lasers had to be recalibrated and sometimes needed to be replaced. So having them at the top of a machine that was the height of a three-story building was not a great idea. Switching the laser array also allowed for the machines to be built with a bit less structure, as they did not have to support the additional weight on top. And it meant the electricity was now extracted from the top of the machine.

They were using this to its full advantage in the old assembly hangar. All the high-voltage wires could now be located in the extensive grid of catwalks at the top of the giant structure that once held heavy-duty ceiling cranes. This was a safer configuration for everyone. And it made it easier to port the energy out of the building through suspended high-voltage wires. Ben questioned the need to have the particles in the system flow in the same direction as falling water, as if gravity were going to impose some effect on these subatomic units traveling at 80 percent the speed of light. He and David had to experiment with the concept first, of course. Using the ceiling-mounted hoist, they picked up the first successful machine, Mabel 2, and spun it on its head. The thing ran just the same as before—same energy output, same temporal lag, and no other obvious ill effects. So, when it came time to rebuild the Hourglass, it also got flipped. The rebuild cost them a great deal of time and over a million dollars for the upgrades, but both considered it well worth the cost. The shiny black testament to their genius was now powering their entire campus, with no issues.

“That’s ridiculous, I know you’ve got to be kidding, Ben...right?” responded David. “We both know we tested that when we turned number two upside down back in Cambridge.”

“Well, I’m grasping at straws, David. Plus, it was meant tongue-in-cheek, of course,” Ben said, and with a jolt, offered further conjecture. “But we never hooked the Hourglass up to this system. We don’t actually know if it has the time gap I predicted and is receiving information from its future point.”

“That is a good point, we only estimated its gap when we first assembled the thing. When we brought it here, we didn’t even connect the temporal sensor array. We were anxious to get the Hourglass up and running so that it could power the campus, so we didn’t even bother setting it up to detect the time differential. I mean, we were busy, we needed its twenty-megawatt electrical output, and in the end it didn’t matter much, since we weren’t using it to read stock movements,” David considered.

“Maybe we should hook it up and see what sorts of readings we get from it,” suggested Ben.

David took off his glasses and rubbed his eyes. Only an hour into his work here and he was already running out of steam. Sitting and staring at this screen with nonexistent or unhelpful data was getting them nowhere, so why not check the readings?

“Sure, it can’t hurt. If we get skewed readings from it, or no readings at all, it could point to a bigger problem. So let’s go! I’ll grab my laptop on the way,” David commanded.

David pushed himself out of his chair in a sudden jerk, startling Ben with his decisive action.

“Okay, then, I thought there’d be more discussion on the topic! Wait up!” Ben implored.

But David was already out the door, heading across the corridor and through the conference room, the shortcut to their office. Ben quickened his pace to catch up. He knew that when David made a decision, he often moved on it with a definitive swiftness. This was frequently a source of conflict between the two of them, as Ben would throw out an idea as a basis for a discussion, and David would just act on it as if it was already decided. Ben would often remind David that articulating an idea was not the same thing as endorsing a plan of action. Though, in this case, David was right: there was no harm in setting up the data stream for the Hourglass.

The pair wended their way through the maze of engineering building toward the northwest corner, where the lab with the Hourglass sat. It was the tallest room in the building, starting on the first floor and reaching to

the roof. It was a simple room with gray cement floors and concrete walls recently painted white. A set of battleship-gray metal stairs on the inside wall led to a small room with windows that was once used as an operations room for the work being conducted here. The room echoed with the rhythmic pulsing of the machine, a loud droning sound as the lasers did their job. The garage-style overhead door on the outside wall made for much easier work to get the Hourglass into the room and reassembled.

In the eyes of its two creators, the machine was a thing of beauty. It sat nearly ten meters tall and was about four meters wide. It was shaped, to no surprise, like a fat, glossy black hourglass that was too thick in the middle, and it had ten metal braces on the outside that looked like handles that a giant could use to pick it up. The whole machine was surrounded by a hexagonal mesh of copper. It was the last in the Vortex Series of machines, which served as a bridge between the experimental Mabel Series and the new commercial machine currently nicknamed the Hexadecagon. Unlike the Hexadecagon in the hangar, the Hourglass was covered in carbon fiber plates. The plates were lighter than the metal, but were prone to developing small cracks, though they easy were enough to replace during regular maintenance.

Ben took out his phone and tapped out a message, waited a few moments, then read the reply.

“Rakesh is aware we are about to shut down the system, so do the honors,” Ben said, slipping his phone back into the right pocket of his hoodie. He headed toward the banged-up beige utility closet door under the landing for the stairs. He wasn’t sure why they did not bother to replace it, or at least paint it the same color as the stairs.

“I’m on it,” David replied. Next to the machine, against the closest concrete wall, sat a small metal cabinet with a keyboard and touch-sensitive monitor. David tapped the screen, entered a password with the keyboard, and opened the operations menu. A single tap of a green rectangle near the bottom of the screen turned the screen red and shut down the machine. The room suddenly went silent. The lights flickered off, and the room went dark for just a second while the battery backup kicked in. David clicked a few additional operational buttons to degauss the machine and expel any residual electricity to render the instrument safe to be modified.

A battery bank was only one of several tricks they utilized on campus to store unneeded energy for potential future use. It was surprising to Ben and David how little they knew about the electrical grid when they started this project. It was Zack who had introduced them to the myriad ways they could store excess electricity and later release it for use. The world’s most popular way of storing excess electricity was to utilize the excess power to

pump water back behind an hydroelectric dam, where it once more became potential energy and would be used to generate electricity in the future. That method wouldn't exactly apply here on this campus, though. Instead, they utilized another method, in addition to the giant battery banks. In a building that previously held the LNG cogeneration plant for the campus, creating both the electricity and the hot water utilized to heat all the buildings, there were now giant tanks. The excess electricity was used to liquefy the air and store it in the tanks. When reserve electricity was required, the liquid air was turned back into a gas that powered the turbines already in the building. This process operated at over 60 percent efficiency, which wasn't bad for what was essentially a redundant backup system. During the winter, they'd use the excess electricity generated this way to power the hot water heaters and pumps to keep all the buildings warm and toasty.

Between the Hourglass and the cabinet, there was a conduit on the floor that contained the cables that sent control instructions to the machine and returned the telemetry data from it. What it did not contain were the cables for input and output for the operation of the time displacement. They'd have to retrieve them from the inside of the Hourglass in order to download the control software into the machine that allowed the transmission of the data through the laser array and the reading of the received data back to the computer.

The time gap between the two energy outputs in the system was discovered by looking at the small fluctuations caused by the lasers when they were firing in sequence. There was no actual information to read from the fluctuation and no way to discern any more understanding about the phenomenon. David ingeniously came up with a solution that would allow them to further study the time gap. Computer data is simply a series of ons and offs seen as ones and zeros. This data could be easily transmitted by the laser light. By sending some easily confirmable timestamped data through the machine and reading it out the other end, David conjectured they could gain insight into what was causing the time differentiation.

Early on, David and Ben had added a small, low-powered laser to the system to transmit this data, but this process had failed; they weren't able to read anything out the other side. David realized that, to make this work, they would need to modify the high-powered lasers that powered the technology to emit the data pulse. Of course, this had to be done without any alteration to the function of the machine itself. The lasers in the system were designed to fire high-powered pulses in sequence into the device known as the splitter, which is where the quantum split of the particle wave occurs. Because the lasers can perform this function very rapidly and can transmit a

bit of information with each pulse, it was just a matter of configuring them to deliver the information and finding a way to read it on the other side of the process.

The current build of the free electron lasers, like the ones in the Hourglass, could fire five hundred thousand pulses per second. There were sixty-four lasers in the array inside the machine. This meant that up to thirty-two million bits of data could be transmitted per second—not exactly high-speed internet, but more than enough to send the minute-by-minute stock prices. The past iterations of their technology conveyed exponentially less data than that and still did just fine relaying the stock information. Since it wasn't feasible for the lasers to turn off in order to designate a zero, as that would decrease the power and efficiency of the system, they needed to come up with an alternative. It was Ben who figured out the ingenious solution of modulating the frequency of the laser's energy to designate the difference between an on and off in the data stream. It was easy enough to read this frequency fluctuation on the other end of the process and organize that information back into the computer data. The frequency change caused an almost imperceptible dip in the power being collected on the smaller machines. As the machines grew in size and power, that dip became a bit more noticeable. Since the frequency pulse was only useful for reading data off the time differential, it was going to be left off all future iterations of the technology. There was no need to have another ninety-five machines able to generate identical data from a couple of decades in the future at the cost of being more expensive to build and operate, as well as less efficient.

Ben emerged from the utility closet rolling a large plastic cart that held all the tools necessary to complete the job ahead. As with nearly every cart of this sort in the known universe, one wheel shimmied and squeaked instead of rolling quiet and true. David was used to the noise, so he didn't even bother looking up from his task of queuing the additional software they'd need to load into the machine to get the lasers to modulate and thus produce data. Given its sensitive nature, the software was only stored in a few places, one of which was David's personal laptop, which he had set up on the metal cabinet in place of the pushed-aside keyboard. When the squeak got louder and was emanating from directly behind him, he turned.

"I have the software ready to be uploaded to the Hourglass. I've already purged the electricity from it, so you're safe to open it up."

Ben nodded, smiled, slipped a faded blue cushioned mat onto the floor next to the machine to kneel on, and grabbed a portable drill fitted with a hex bit. David didn't even bother to offer to help with this process—not that he wanted to help; this was Ben's purview, and nothing made him happier

at work than having a tool in his hand and going to town on one of his creations. Twenty hex screws, two panels, and a connecting brace later, Ben had created the opening he required to crawl into the Hourglass and under its sensor hub. A thick mist floated out of the opening, similar to what you'd see emanating from a vampire's crypt in a horror movie. When operating, the instrument had liquid nitrogen circulating through it to keep the lasers and other mechanisms cool. The moisture in the air that was introduced when Ben cracked open the machine's housing turned into a vapor in the cooled air inside. Ben peered inside and turned to his partner.

"I'm curious, David, what do you think of the engineers calling the commercial machine the Hexadecagon?"

"I'm not a fan," David responded, never looking up from his computer work.

"I was thinking we should call it the Pickle!" Ben said cheerily, hoping to sell David on the idea. "It looks like one to me."

David shrugged. "Eh, I don't think we should name it anything. Eventually some marketing firm we hire will need to call it something snazzy for the press releases. Let's leave the naming it to them."

Ben readied his head lamp and selected the various tools he'd need for the job. From the bottom of the cart, Ben grabbed the last and most important item for completing his task: a low-profile mechanic's creeper. Sliding halfway inside the machine, Ben stopped and flicked on the headlamp, then glided the rest of the way in. Every time he found himself here, the tight space and the darkness pierced only by his headlamp made Ben wonder if this is what it would feel like to be inside a coffin. Ben had been in a million tight spaces under or in the engine bays of dozens of cars in his dad's garage, but at least then he wasn't enclosed on all sides.

The sensor assembly area was designed to be relatively easy to access; it contained several gray cases attached within an alcove in what constituted the ceiling of this crawlspace. The cases themselves were designed to be shielded from the effects of the magnetic and electrical forces exerted by the machine. In them were all the computers used to drive the technology and gather sensor data. Though he hoped never to test the theory, Ben was confident the cases would withstand the EMP blast caused by a nuclear explosion. The one Ben was now opening held the sensor control unit that could detect the fluctuations of the frequency in the laser's pulses. To anyone else who was looking, there would be no solid way to guess the true nature of why this data was being collected and processed. Frequency fluctuations would be an obvious data point of interest for this operation; at least it could be explained

as such with no raised eyebrows. The future was hidden in plain sight. Ben undid the four clips holding the hinged cover onto the case and opened it up.

It was empty.

“Son of a...” Ben grumbled. He looked down the tunnel toward the light emanating from beyond his feet, and yelled, “David! C’mere! The friggin’ box is empty! We never installed the control module for reading the frequency flux!”

David walked over the opening in the Hourglass and was now leaning on his knees, staring at the treads on Ben’s sneakers. His mind was replaying the events of midsummer when he and Ben were working around the clock to get the Hourglass up and running at its task of powering the campus.

“Oh yeah, that’s right, we never installed it! We weren’t going to collect data, and we were on a tight schedule to get it operational.”

Ben launched himself onto the creeper, firing himself most of the way out of the access area in a shot. He looked up at the too-calm David, his face already covered in perspiration from being in the rapidly warming, enclosed space. “Well, that’s just great! What should have been a twenty-minute operation will now take the entire night, assuming we even have a control module ready! Screw it, I’d like to see my kids tonight, and it’s already pushing six!”

David raised his palm, shaking it gently at Ben. “No, we’ve already started this process, and I’d like to see it through. I’m curious to see if we get data from the Hourglass now,” David calmly responded. “I am almost positive there is a temporal control module already assembled in the electronics workshop upstairs. Let me go check; if there is one ready to go, we can install it in under two hours and be able to check data immediately after that. You’ll be home in time to tuck your kids into bed. If there isn’t one assembled, you can call it a night. I will spend the rest of the evening assembling a new control module, and we can take this up in the morning.”

“Fine!” Ben said unconvincingly.

“Great, I’ll be right back then!”

David took off in a flash, leaving no time for Ben to raise any further objections. The frequency data was conveyed on 240 separate sensors, 120 on each end of the machine. Ben would now have to connect each one to a pin on the sensor board. The one consolation was that he could do that work on the outside of the machine in the open space of the lab. For now, he’d call Mai and annoy her with news that he’d be working later than expected for the umpteenth time.

It didn’t take long for a smiling David to return carrying a small gray case and a few odds and ends of electronic thingamabobs. Ben was sitting cross-legged next to the machine on the blue pad. He had already gone back

inside the Hourglass and had run a wire from the sensor assembly to a small, low worktable he'd set up outside the machine. It would be easy enough to coil it afterward and tuck it somewhere in the sensor space.

"Hey, we had one assembled after all, Ben!" David exclaimed in a nearly gleeful manner. "I can get the programming set on it while you connect up the pins."

Ben resented that this was how David was when he was in his element. Odd working hours, a crunch to finish a project, no concept of prioritizing anything else. He had to remind himself that David was still living the life of a post-college bachelor. He worked hard, but he mostly lived just for himself, like a perpetual twenty-two-year-old. Ben had just talked to his wife and had to hear the phrases "You work too hard!" and "The children miss you!" from her again. Mai's parents usually disappeared into their room as soon as the dishes were done, so she'd have hours alone prepping three high-energy kids for bed and waiting in a silent house for his return. He wondered how many times she had been disappointed eating dinner without him or curled up on the couch watching some movie alone. David's voice snapped him back from his own thoughts.

"You ready, Ben?" David hooked the angular array of computer boards up to a USB cord, which he connected to his laptop. From a small toolkit on the cart, Ben removed a pair of green plastic tweezers with rubber grips at the tip. He worked with surgical precision, checking the small plastic film tag that held the designation number on each wire, and carefully connected them in order according to the wiring map he had printed up, laminated, and stuck in a binder that resided on the utility cart. David was busy tapping and clicking away on his laptop, uploading the software to the array. Out of the corner of his eyes, Ben noted the flashing of a few of the green-and-red LEDs on the main circuit board, denoting David's porting of information into the solid-state hard drive that was part of the assembly.

"All set!" David said in a pleased tone of voice. He unplugged the cord from his laptop and connected the wire bundle to the computer inside the metal cabinet, taking care to run the wires through one of the openings on the side of the gray case and out to the frequency sensor computer assembly without disturbing Ben.

Ben looked up at David as he attached the wiring, then gingerly twisted down the thumbscrews to secure it. "I'll still be a while; I have only attached half of these wires to the pins," Ben informed David in an apathetic voice indicative of him concentrating on his task.

"Tell you what, Ben, let me fire up the frequency-detection sensors in the Hourglass, then I can greenlight each attached sensor as you go along—it'll

save us some time, but you'll have to be a bit more careful not to touch the wires to the wrong pins."

"That would speed things up—so, sure, David. I'll try not to blow one of the sensors by crossing it with one of the other pins in what will be the world's most costly game of Operation."

David had darted to the machine's control computer on the metal cabinet a few steps away as soon as Ben had said "sure." He didn't bother acknowledging or perhaps even listening to Ben's little joke. But if this got Ben out the door sooner, it didn't matter. Ben supposed he was still quite curious as to whether they'd get data from the Hourglass, and worried about what it meant if they didn't.

David tapped the touchscreen a few times and turned to Ben, announcing, "The sensors are powered up!"

None of this distracted Ben from the task at hand, as he carefully plucked the wires and slotted them onto the appropriate pin. But a new sound did catch his attention. Ben looked up from his work to identify it. It was a low buzzing sound, like a loose piece of plastic rapidly tapping on a glass table. Looking over at the top of the utility cart, he found the source of the noise. It was David's phone vibrating away with a phone call. Not just any call, but one from Naomi.

"David, your girlfriend is calling!" Ben said, knowing the likely reason for the call, and knowing David would as well.

David straightened up, took his fingertips from the monitor, and looked lost in thought for the briefest moment.

"We are in the middle of something important; I'll call her back when we can afford the distraction," David said in a cold, matter-of-fact tone, returning to his finger presses on the touchscreen monitor. "I'm starting my check of the sensors. The first one looks good. One down, two hundred thirty-nine to go."

"Dude, it is seven twenty-five, and it's a fair bet that Naomi is home and just read your letter and is calling to talk to you about it. That seems like an important conversation, doesn't it?" Ben chided. He was annoyed that now he'd have David's stubborn conflict avoidance to deal with for the rest of the evening. Nonetheless, he returned to his wire-and-pin waltz, more eager than ever to finish up and get the hell out of there.

"The importance of the conversation is all the more reason to wait until we are done here. It'll be fine. Sensor four is green," David said, not retreating from his stance.

Ben shrugged off the distraction and drama; there was no point in engaging David on this matter further, at least not until the Hourglass was

completely assembled. He was attaching wire #188 to pin L12. The board of pins was in a sixteen-by-fifteen configuration, with the columns assigned a letter designation and the rows a numerical one. Just a quarter of the wires left to go, and he could be done in fifteen minutes if he concentrated.

“Done! Finally!” Ben announced to David fourteen minutes, forty-eight seconds later.

Ben heard David’s phone vibrating once more, and he glanced down to see Naomi’s name and picture on the screen. He didn’t bother to inform David; it would just be wasted breath.

“Awesome, I’m testing sensor 152... It’s a go, give me another ten, and I’ll be done,” David said without turning from the screen in front of him.

Ben set to reassembling the frequency sensor computer system back into the gray-shielded box, careful to make sure he didn’t disturb any of the wires. Under normal circumstances, he would not assemble a live system like this, as a slip of the screwdriver could blow the circuits. At this point, he was too mentally spent to wait until it was 100 percent safe. Ben made quick work of it.

David’s phone began to buzz again. Ben picked up the buzzing phone and deposited it on top of the cabinet where David was working. David looked down at the phone and promptly ignored it.

“Sensor one eighty-eight is not sending a signal. I’m trying it again, but I think it is a red,” David responded, trying hard not to even hint at eye contact with Ben.

Ben put his hand on the unresponsive David’s shoulder. “Do you want to alienate her, David? Push her away? She’s called three times, and you are going to make this worse with each missed call. She is more important than anything we are working on. Call her back!” Ben said, skirting the line between sympathy and lecture.

David turned in a jerking motion that removed Ben’s hand from its perch on his clavicle. He made eye contact now, piercing Ben with a look of annoyance he hadn’t seen in a long while.

“Let me handle it my way, Ben! I want to finish this process first. I’ve got thirty-nine sensors to go. Aren’t you the one in a hurry to go home and cuddle with your kids? If I call her, we will never finish this! So quit nagging me and get ready to reinstall the sensor module!” snapped David.

“It’s your funeral, David, but by all means, keep handling this your way. You’ve done a great job so far.”

Ben’s words evaporated in the air like a popped soap bubble. David had already turned back to the monitor. What Ben said had certainly made vibrations through the air that entered David’s ears and were translated into

electrical impulses by his auditory nerves, but they were assuredly not listened to by his brain. Ben walked away knowing there was little point in pushing the issue. He might as well start prepping to install the sensor module case as David had commanded; they were in the home stretch and would have answers to the mystery in a matter of minutes now. He grabbed the drill sitting on the blue foam pad and slid himself back through the access panel to install a few more wire braces in the preexisting channels that ran down the sides of the chamber. By the time he was done screwing them in place, he heard David yelling from outside the chamber.

“I’m done. Sensors forty-eight, seventy, and one ninety-eight are not relaying a signal. But since we can lose 5 percent of the sensors without hurting the fidelity of the signal processing, we are well within parameters,” David said with all the emotion wicked from his voice.

Ah, the stoic voice, thought Ben. Good thing we are almost done. This version of David is damned annoying.

“Good,” Ben responded. “Then hand me the case and wiring, and I’ll finish the install. Prep the Hourglass to be turned back on, please.”

Ben made quick work of the reset of the installation, not that it was all that complicated. He then rolled the wonky cart back to the closet.

“Start-up procedure initiated,” Vulcan David replied.

The lights flickered, indicating the building had switched off the battery backup and had returned to being powered by the Hourglass. Leaving the closet and closing the door behind him, Ben noticed the familiar droning noise that meant the Hourglass was now fully up and running. He walked over to David, who was still at the controls.

“It is back up to full power; energy levels are as expected,” David informed Ben. “Let’s go upstairs and see what data is being returned.”

Ben noticed that David’s phone, still on the top of the metal cabinet, now had several text messages on it, replete with every vulgarity imaginable. David clearly had not responded to a single one yet. Ben scooped up the phone and offered it to David, who plucked it from Ben’s hand and stuffed it into his back pocket without so much as a look at its screen. Ben didn’t even bother to shake his head this time; it wasn’t worth it. They took the circuitous route to the upper control room in awkward silence, hearing every squeak of their soles on the way. When they reached the door, Ben’s phone made the familiar *ding* of a text message coming through. Ben took the phone from his hoodie pocket, expecting a message from Mai, but to his surprise, he saw one from Naomi.

Ben, is David there with you? I have tried calling/txting he isn't responding

"Hey, it's a text from Naomi!" Ben said with snarky glee.

"What? Why the hell is she texting you?" David responded, his stone face dissolving into one of burgeoning panic.

Ben sat down at the workstation, in the chair he occupied a few hours earlier, and David remained standing. Ben began typing into his phone, with a slight smirk on his face.

"Hey, what are you doing? Don't reply to my girlfriend!" David said, nervously thumbing at his own phone now as he read a series of ignored texts.

Ben stopped typing and looked up at the now ashen David.

"Why the hell shouldn't I respond to her? She wrote *me*, David. You had your chance to take control and responsibility, and you chose to kick that can down the road...again. You told me to let you handle it, and you decided to be a toddler about it. I now have a text from her. She's clearly worried about your status, which I would consider a lucky break on your end, and I'm going to respond to her. Feel free to man up and respond to her first. I'll start up the software for sending and reading the temporal data while you take care of this," Ben calmly responded, the control over the situation now squarely in his hands.

David huffed every bit of air from his lungs, sat down with a loud *thump*, and began composing a response. After several iterations of typing, then erasing, then typing, he settled on a straightforward, if not completely true, response:

Hi, Naomi, I'm so sorry I did not answer the phone or respond earlier to your texts. I am here with Ben, and we are caught up in a serious technical problem. We had to disassemble two machines! He told me you wrote him, and I see you are upset with me. I completely understand your anger, and I promise I'll explain it all to you as soon as I can. I am so sorry it took so long to tell you! I love you.

It was the perfect response from David's point of view, as it heavily implied he simply did not see the texts or hear his phone ring because he was busy working and did not have his phone on him. A perfectly plausible way to weasel out of some of the trouble he was now in.

"There! Sent! You happy now?" David said, like a disappointed child.

"No, I am not happy, David. Look!" Ben responded.

David, surprised by Ben's answer, turned to the monitor in front of him on the desk. On the screen were several open tabs showing the performance

of the Hourglass. But no temporal data. Much like they saw from the big commercial machine, the Hourglass was not reflecting data from the future. Even worse, they were not receiving any indication the instrument was even functional in the future—the same issue they’d seen earlier in the day with the machine in the hangar. Ben flipped through a few more tabs and expanded the graph, showing the frequency flux output into the machine.

“The Hourglass is receiving our signal; it is getting the timestamp ping from now and transmitting it through the frequency modulation. But we are flatlined on the other end, as if the machine is off,” said a dismayed Ben. “Is it possible we turned off the Hourglass in the future as well? It doesn’t make sense.”

David adjusted his glasses for the dozenth time in the last minute of staring at the monitor, as if the exact right focus might change the data before his eyes. With his fingers tapping his bottom lip, he worked through the logic of what he was seeing, or not seeing, as the case seemed to be. The various emotions of the last few minutes had made him hot and sweaty; his left hand was now leaving a clammy imprint on the table. Until this very moment, he discounted the concern Ben was expressing earlier. But now he saw it, and he was feeling a tightness in the pit of his stomach. Something could be wrong. Very wrong.

“Okay, so why is the time gap data flatlined?” Ben asked in futile hope. David already discerned the answer.

David sat still for a moment, wiped his moist hands on his pant legs, and tapped his right index finger on the screen.

“If it was just a matter of it being no longer hooked up to the frequency detecting sensors, we’d still see some nominal fluctuations in the second output line, but it’s flat and steady, as if it is no longer receiving energy from some point in the future. Where that energy is coming from is confusing enough, but an issue for another time. What is troubling is that it looks like the instrument is not functioning at this point in the future, less than five years from now,” David said, still running the problem through his sore and tired brain. “I agree with you that it is highly unlikely we’d turn off the Hourglass in the next five years. We just spent more than a million rebuilding the thing, and it would be a lousy ROI if we trashed it so soon. I mean, the machines are built to last fifty years with proper maintenance!”

“So then what?” Ben exclaimed in frustration. “The machine is clearly functioning perfectly right now; it is translating frequency fluctuations into data and it should be doing that five years from now. Add to this the fact we were not getting this data from the Pickle either. We might have a big problem on our hands, David!”

David straightened up his spine and sat tall in the chair, his face paler than before. "Or the world does," he said softly.

"What do you mean?" Ben asked, in a confused voice that bordered between optimism and willful ignorance.

"You know exactly what I mean. There's a distinct possibility these machines aren't functioning in the future because something bad has happened. Something devastatingly bad!"

"What exactly are you thinking, David?"

David shook his head. "An event bad enough to take out all electrical generation, some sort of natural or human-caused disaster that destroys them...and most likely everything else."

Ben stared intently at David, who was not known for his flights of fancy or for spreading doom and gloom. He was desperate to parse something from his expression; that maybe it was the remnants of the hangover or his tired state that compelled those words to emerge from his mouth. Or the stress over the Naomi situation; maybe that was the cause. But there was no indication that this was anything but cold, sober hypothesizing behind his words.

"Well, that's just fantastic. At least an extinction-level asteroid impact would evict the in-laws from my house!" Ben added with icy sarcasm.

For a few moments, they sat in silence, staring at the monitor, staring at nothing. Ben's mind, however, was still working through the same information that made David come to his dire conclusion. He shoved his suddenly cold hands into his hoodie pockets and fidgeted with the small jackknife he had stashed in one of them.

"Well, let's not jump to the apocalypse just yet. What is the longest time we have had a system offline? Not for a move, but under normal maintaining or repair circumstances?" he asked David.

"A few days, maybe. A week at most. I think we took Mabel 10 offline for eight days to repair its tube coil," David responded, shaking off his melancholy and reengaging the analytical part of his brain. "I see what you're getting at, Ben. This single moment the information doesn't look great, but scientists don't reach conclusions based on single points of data!"

"Yes, exactly, David! And we are scientists, so let's collect some additional data! If the data from the Hourglass looks the same two weeks or a month from now, we will then know that there is a concern. We back that up with whatever confirmation the new machine gives us. And then we can formulate a working theory based on more information!" Ben proposed.

"That works, and it gives us some time to get one or two of the other machines online and see what they are saying. We have three more packed up

from Cambridge sitting here in storage, and we need to get Vortex 1 operational before we shut down number ten and completely close the old facility,” a buoyed David replied. He got up and headed for the door. “We should get downstairs. We’ve kept the engineering team waiting long enough. I’m sure they want to get home as much as you do.”

Ben shook his head. “No, I’ll stay up here and monitor the Pickle in case we do start getting data from it. I will need to start the data pinging program from here anyway, since we shut it down when we pulled the sensors.”

David got up and started for the door. “I’m not sure about calling it the Pickle. But, good point. Text me if you get anything; otherwise, I’ll head back up here after I’m done in the lower control room.”

“Don’t you have a fiancée to call back?” Ben queried.

“She never texted me back. She might be done for the night, or done with me... Either way, I will at least text her later, I promise!”

Ben shifted his chair front and center on the computer monitor and keyboard, pushing the chair formerly occupied by David farther down the line. He closed down the tabs for the Hourglass and opened the new tabs for the Pickle, which is what his mind was now calling their latest creation. He was ready to start sending the frequency modulation *ping* to the machine. The bigger machine had five times as many lasers in it as the Hourglass, so it needed a ping program adapted for the 320 lasers in its array. Ben considered that he could probably watch a high-resolution video from twenty or so years in the future with the bandwidth increased from the number of lasers. Not that they had a program that could deliver or interpret that sort of data. Hell, who knew what format compressed video would be in twenty years from now. Assuming they weren’t mid-apocalypse at that point. Now, alone in a quiet room, the adrenaline that had pumped into his system from creating the action plan just a few minutes earlier began to subside, and the fear crept back in. If they stumbled across some cataclysmic event with their technology, he’d rather he never figured that out. Better to remain unaware than be stuck in the impotent position of knowing and not being able to do anything about it. *Then again*, he wondered, *with a warning, I could save my family perhaps...*

Ben shook off the dark thoughts, sprang from his chair, and walked with purpose to the shiny black column in the corner of the room that dispensed cold and hot water. There was no coffeemaker in this room, which he now lamented. Ben was really wishing they had kept the bar that once served the generals and senators in this room. In lieu of a bourbon, he’d have to settle for some water. A new text on his phone from Rakesh announced that the start-up had begun. He hurried back to the workstation, sloshing a third

of his water onto his clothes and the carpet. The command line to start the frequency modulation program was already typed into the prompt. Ben hit Enter.

A few minutes passed as the lasers were brought up to power, the magnetic fields achieved their appropriate strength, and the vacuum was completed. All the sensors were green across the board. It was showtime! Ben dragged the window containing the temporal data to take up the left third of the screen. It was showing nothing, as flat as the data from the Hourglass. This was the exact moment they were at earlier in the day that had prompted him to shut down the device and pull the sensors out of it. He resigned himself to the fact that he was unlikely to get a better outcome this time around. There was at least better news on the right side of the monitor. The lasers were all firing, and the energy buildup had begun. The output was already exceeding that of the Hourglass. A few minutes later, Ben heard the faint sound of cheering coming from the room below. A message box from Rakesh popped up in the middle of the monitor labeled "Workstation 07."

It is netting 11.75kwh. Below expectations by 1.5%, but within parameters.

Ben leaned back and smiled; their invention could power the world someday. Still, though, the machine was no longer receiving a signal from the computer, and in all likelihood it was not running at all in the future. A click on the frequency status tab indicated the Pickle was receiving a *ping* in the form of the frequency flux, and would do so as long as the stacks behind him were still operational. But no output. Another message popped up:

We're going home. David is heading upstairs; he'll monitor the machine tonight. I gave Amed and Olivia Monday off. See you tomorrow, boss.

Ben X'ed out of all the tabs on the computer workstation in front of him and shut it down. It probably wasn't strictly necessary, since only David was going to be here, and Ben suspected he'd come check on it at some point in the middle of the night. But this was the protocol he and David had agreed to, the step that kept anyone from accidentally figuring out what was really going on in this lab.

The door behind him opened, and a tired David came shuffling through. The events of the last twenty-four hours has taken their toll on him, and even the emotional highs and lows of the last two hours couldn't amp up his energy level. David turned a sharp right and headed for the water dispenser.

After gulping down a cup and pouring himself another, he walked over to the workstation and sat down next to Ben.

“Well, we did it, my follow future Nobel Prize winner: that room will eventually provide power to millions of people. We’ll build more rooms like that and power New England in its entirety,” David said with as much cheer as he could muster. “I know what you’re thinking, but you were right earlier: let’s worry about the other issue when we see more data. We’ll jump off that bridge when we come to it.”

Ben nodded and looked at his watch.

“I still may have time to tuck the kids in, or at least spend an hour on the couch with Mai. So I—”

David’s phone buzzed in his pocket. The men exchanged a look as David fished it out.

I’m glad you two didn’t blow up with the lab. I am pissed, very pissed. But I drank a half bottle of wine and am too tired and buzzed to deal with this tonight. Going to drink the rest of the bottle and go to sleep. We will deal with this tomorrow.

A second message followed:

And when I say we, I want to talk with EVERYONE who knows this secret and kept it from me, not just you. Arrange for us all to talk after work tomorrow. At the Tool & Die. 7

And a third:

I love you, despite this, you big baby. Goodnight

“Huh, she wants to talk with all of us. Tomorrow, at seven, in the Cambridge facility. Well, all of us who already know about this,” David said, still staring at his screen. He sent a thumbs-up as a reply and immediately regretted it.

“What? Is she going to break off the engagement with all of us? Rakesh will be devastated!” responded Ben.

David conjectured, “Not funny, Ben. If I were to guess, it is to make sure I don’t weasel out of the entire truth, which, considering the circumstances, is something I would have totally tried to do if I were by myself.”

“She knows you well, my friend!” Ben patted him on the arm and headed for the door. “I’m outta here. Tell the others, and we’ll gather at the Tool & Die building. Get some sleep. You look like you need it.”

David nodded in agreement. “I will. Tomorrow is looking like it will be an interesting day.