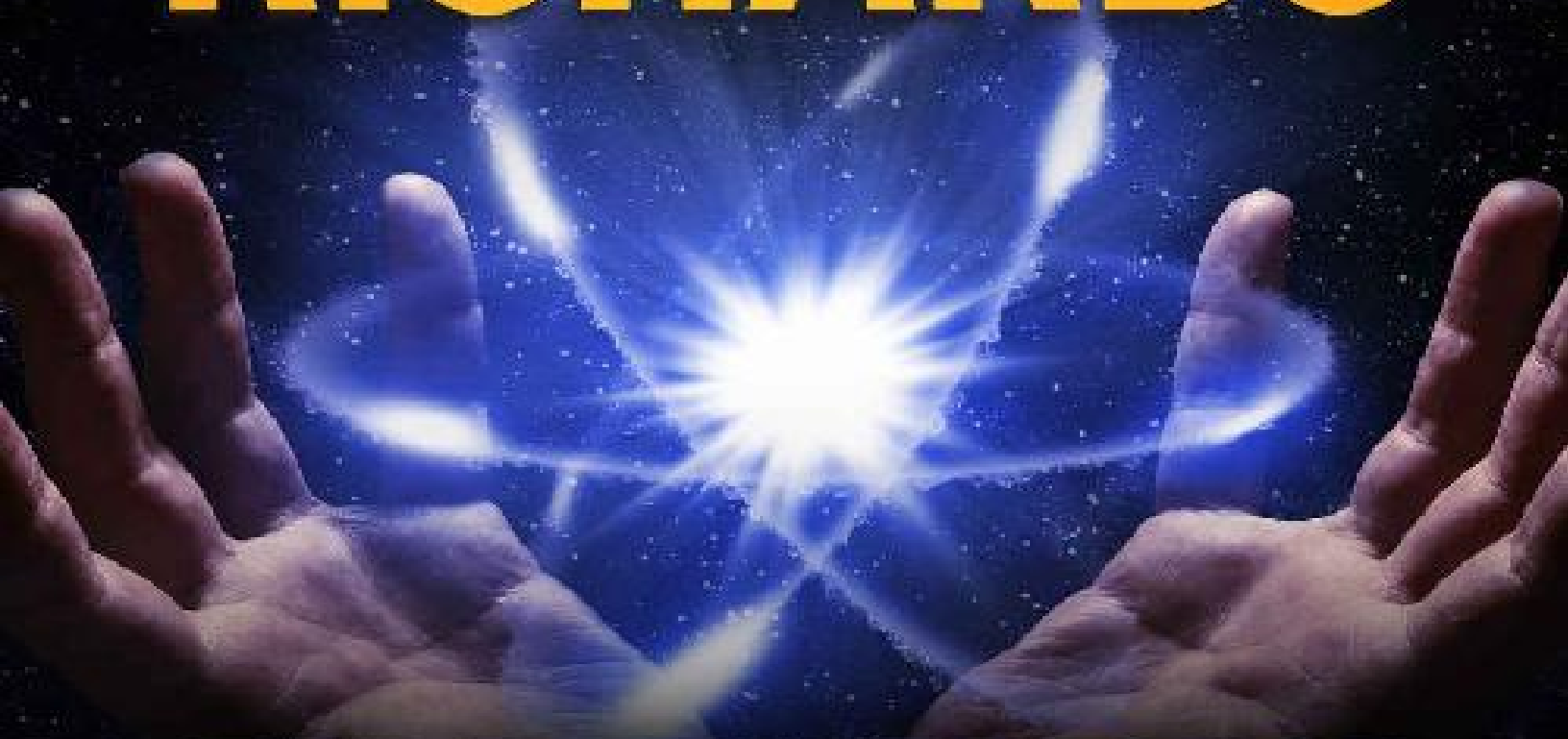


NY TIMES BESTSELLING AUTHOR OF WIRED

**DOUGLAS E.
RICHARDS**



**THE BREAKTHROUGH
EFFECT**

THE BREAKTHROUGH EFFECT

Douglas E. Richards

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First Edition

PROLOGUE

Eric Raymond's eyes fluttered open just a sliver before he slammed them shut again. The light beyond his closed eyelids was bright enough to make the surface of the *sun* seem pale. He groaned in agony, which only served to make the daggers of pain that much worse.

How was worse even *possible*?

Where was he? And which parts of his body were responsible for torching so many of his pain receptors? Had he been stuffed inside an industrial-sized clothes dryer filled with knives and hammers while someone dialed it up to maximum spin? It sure felt that way.

He realized he was hungover in addition to his injuries. *Severely* hungover. Which explained his hypersensitivity to light and sound, and why he didn't remember the night before.

He'd been too busy killing brain cells.

And judging from numerous cuts on his legs and torso now held together with stitches, he'd been too busy wrestling giant cacti, or doing something equally stupid.

He was lying on a mattress that wasn't his own. Time to find out where he was.

He opened his eyes all the way and thought his head might explode as he adjusted to the light. Finally, after what seemed like forever, his surroundings swam into focus.

He was on his back in a small hospital room wearing a thin, blue cotton gown, and his left hand was cuffed to a steel railing. IVs were plugged into

several veins, delivering much-needed hydration and blood. A gray sticker on the infusion pump read *property of Dayton Memorial Hospital*. It was the nearest hospital to his rundown apartment, and one with which he had become all too familiar, even at the tender age of twenty-four.

A slender young nurse was standing over him—her nametag indicating she was Irina Jordan—and she greeted his awakening with a look of concern. “Welcome back,” she said softly. “How’s the pain?”

“Excruciating,” he croaked out. “Run out of pain meds?”

Irina winced. “Sorry about that. We like to start with the minimum possible and see where we’re at.”

“Need to go way higher,” said Eric, his voice still weak. “Not that I don’t deserve it,” he added, forcing the hint of a smile, trying not to take his own issues out on the well-meaning nurse.

Irina found a syringe, plunged it into a bottle, and injected the liquid into his IV line. “This will take the edge off very quickly,” she said.

Eric was about to respond when he noticed a tall man looming behind the attractive young nurse. He had been standing there the entire time, observing. The man was casually dressed, but he gave off an unmistakable air of command and competence. Everything about him said he was an alpha male, including his granite physique.

“Thank you, Irina,” said the man, holding a slim tablet computer down by his side. Since he wasn’t in a position to see the nurse’s nametag, Eric assumed they had interacted previously. “Please uncuff him and leave us alone. I’ll make sure he doesn’t hurt himself.”

The visitor approached the bed and shook his head with just the hint of a smile. “Well, doesn’t hurt himself *further*,” he added.

The nurse did as instructed and then left, closing the door behind her. Once she was gone, the visitor returned his gaze to Eric Raymond.

“So what did I do this time?” asked the patient.

“You don’t remember?”

Eric shook his head. The pain was still there but had already subsided considerably. No wonder pain meds were so damn addictive.

“My name is Phil Thomison,” said the visitor in a deep, soothing tone. “*Colonel* Phil Thomison.”

Eric tried to whistle, but his lips were swollen, and he didn’t even come close. “So why’s a colonel making house calls? Or *hospital* calls, anyway?”

“I’m on a recruiting trip.”

Eric rolled his eyes, one of the few parts of his body he could still move.

“No, *really*,” he said. “What are you doing here?”

“You’re too sharp not to believe me.”

“Also too sharp to believe the timing of your recruiting trip is coincidental. You wanted to wait until I was on my back before you pitched me, didn’t you?”

Thomison nodded. “I’ve had my eye on you for a while. Figured it was only a matter of time before you ended up here.”

“And that I’d be more receptive to your pitch when I hit rock bottom?”

The colonel studied the young man in the hospital bed for several long seconds. “That’s right.”

“Please tell me you aren’t looking for a ringer for the military’s flag football team.”

The colonel lowered his eyes and sighed. “Look, Eric. It goes without saying that I couldn’t be sorrier for what you’ve been through. Going from the ultimate high to the ultimate low can break any man.”

Eric’s eyes moistened. From rarified heights to the depths of hell in the blink of an eye. How many times had he let the weight of this fall crush his spirit? How many times had he lost himself in a bottle to drown the pain?

Eric Raymond's father had been a fire chief in Dayton, Ohio. When Eric was two, his father had been killed in the line of duty, rescuing more than ninety grade-schoolers who had been trapped inside a burning auditorium. He had been crippled by a falling wooden beam and then burned alive—the last soul to leave the building and thus the only fatality.

With Eric's dad gone, his mother had suffered anxiety attacks and depression, and had trouble holding down a job.

Still, despite their tragedy and her own struggles, she was a wonderful, loving mother. And as Eric grew, it quickly became apparent that he was gifted. The universe had tried to compensate for the injustice of taking his father by making him one of the luckiest people on the planet—on any number of dimensions. His brilliance and charisma were only exceeded by his athleticism, and he dazzled on the soccer field, the basketball court, the track, and the gridiron.

At the age of eleven he vowed to devote himself with all his heart and soul to the task of becoming a professional athlete, so he could support his mother in style, give her the life he dreamed of being able to give her.

He went about this with a singlemindedness of purpose that was truly extraordinary. He cross-trained with a religious fervor, playing multiple sports until he was fourteen, along with mastering ballet and earning black belts in several martial arts, ensuring his agility, balance, and discipline were as extraordinary as his strength and natural athleticism.

By the time he was fifteen, Eric Raymond had singled out football as the sport he would pursue. He was well on the way to his final height of six foot two and was already commanding national attention as a quarterback. He soon led his high school team to two consecutive state titles, despite his supporting cast being wholly unimpressive.

He had speed, toughness, athleticism, decisiveness, and an arm like a

cannon. Not to mention a gift for memorizing playbooks and reading opposing defenses as though he had been in the huddle with them.

Considered the number one prospect in the nation when he graduated, he was relentlessly courted by every major college program in America, but the Ohio State Buckeyes had the inside track, given he had been a lifelong Ohio resident and fan. He started as a true freshman, easily beating out two other highly recruited quarterbacks to win the job.

Before he was nineteen, Eric Raymond had it all. Popularity, fame, superhuman athleticism, fawning co-eds eager to sleep with him, and the adoration of over half a million OSU alumni. Not to mention a Heisman Trophy in his sights, and a future that seemed certain to bring him a net worth of over a hundred million dollars before he was thirty.

But just after turning twenty, everything changed. Fate had decided to rebalance the scales yet again, doing so with a speed and cruelty that was truly profound.

Early in Eric's junior year a burly lineman had launched himself at him like a three-hundred-pound torpedo, his helmet driving into Eric's throwing elbow and tearing his ulnar collateral ligament to shreds, instantly ending his season. And while what had become known as *Tommy John Surgery* usually restored an athlete to top form within nine months, on rare occasions, when nerve and blood vessel damage occurred, numbness and weakness became permanent. Eric eventually regained the use of his right arm, but his freak ability to rocket a football downfield was forever lost—as was the future he had been driving toward for most of his life.

Still, as devastating as this setback was, his mind was every bit as special as his throwing arm had once been, and he vowed to regroup and find another path.

That was when his mom was killed in another freak accident. In a

random drive-by shooting, by a stray bullet meant for a drug dealer who had been caught stealing from the wrong gang.

The loss of his mom was the straw that had broken Eric's back, and he quickly spun out of control. He dropped out of school and did little more than play video games, drinking his way into oblivion. He quickly fell off the national radar, a barely remembered tragic figure, an athlete with unlimited potential, who had been respected and admired on and off the field, but whose elbow—and mother—had been at the wrong place at the wrong time.

Prior to these devastating events, Eric had been down-to-earth and thoughtful by nature, despite his growing stature. He had visited sick kids in Columbus Children's Hospital on multiple occasions while playing at OSU, and he lent his time and fame to the community in other ways. He had treated his body like a temple, never indulging in alcohol or drugs, or even caffeine.

But he soon learned that misery and alcohol in combination could trigger his inner demons. He got into brawls on several occasions and avoided jail only because Ohio judges knew his tragic tale and repeatedly gave him every benefit of the doubt.

But Phil Thomison was right. Eric had fallen from the ultimate heights and had shattered, like a skydiver with a failed chute crashing into concrete. The cruelty of having the dreams he had pursued so relentlessly stripped from him, just when he could all but touch them, and losing his mother, both in quick succession, had destroyed him like nothing else could.

Eric Raymond broke from his reverie and turned his attention back to the looming colonel. "So you're sorry about my, ah . . . misfortune," he said. "But that isn't stopping you from trying to take advantage of it. From trying to recruit me, for some bizarre reason."

Thomison didn't reply.

"Well, you can save your breath. Get out of here. Let me enjoy my

morphine-induced serenity in peace. My answer is a firm *no*.”

“You haven’t heard the question.”

“I don’t need to. I’m not joining the military. And why you’ve made a recruiting house call is beyond me. Are you a lifelong fan of the Buckeyes? Is that it?”

“Oklahoma Sooners, I’m afraid. Although, I have to admit, the Buckeyes usually field the better team.”

“Good talk,” said Eric. “Now leave me alone. You can call in nurse Irina now to cuff me to the bed.”

His swollen lips slowly turned up into a wry smile. “Which, sadly,” he added, “won’t be as fun as it sounds.”

“You don’t remember *anything* about what happened last night?”

Eric shook his head no.

“The thug who killed your mom is in jail, but it seems you wanted to send other members of his gang to the grave—and join them yourself.”

Eric’s face remained blank. Not even the hint of a memory had survived the alcohol onslaught.

“You ran into eight members of the Dayton View Hustlers near a bar you were at,” continued Thomison. “Some people commit suicide by cop. You tried suicide by gang. Your martial arts training allowed you to get in some good licks, as drunk as you were, but you failed to kill any of them—or yourself.

“They did beat you silly and leave you for dead, but you have quite the resilience. Quite the unconquerable will to survive, even in your darkest hour. You have four broken ribs, multiple lacerations, and every inch of your body has been . . . *tenderized*. But you got lucky.”

“Not if my goal was suicide, I didn’t.”

“Here’s the thing,” continued the colonel as if Eric hadn’t spoken.

“There were multiple witnesses, and some took videos with their phones. *You* started the fight. *You* drew first blood. It was unmistakable. By rights, you should have been thrown in jail months ago for previous offenses. And while I won’t pretend these guys didn’t deserve every bit of what you gave them—and more—nothing can keep you out of jail this time.”

Eric sighed. “Why didn’t these assholes finish me off?”

“Only because of the witnesses I just mentioned. Beating you in self-defense is one thing. Killing you when you’re already unconscious is quite another.”

“You said nothing can keep me out of jail. What you meant is nothing can keep me out of jail—except *you*.”

“That’s correct.”

“Well, you can take your get out of jail free card and shove it up your ass. I’ll likely get a light sentence. I’ll serve my time and get on with my life. Or find a way to end it. I brought this on myself, and I’ll suffer the consequences. So I’ll say it again, please leave me the hell alone. You don’t want me to have to scream for nurse Irina, do you?”

The colonel blew out a long breath. “I was here for about an hour before you awoke. And as I was studying your file and gazing upon a beaten, wayward soul with staggering potential, I was struck by the uncanny similarities between you and the young James T. Kirk. From the reboot movie.”

Eric made a face. “The psych ward is on another floor, Colonel.”

Thomison laughed. “Very good. I deserved that. But let me elaborate. The movie hit theaters in 2009, when you were only five. I take it you’ve never streamed it.”

“Good guess.”

“Then you missed out. Not only did you remind me of that Kirk when I

got here, but I realized I was about to recreate my favorite scene from the movie. So I'll make you a deal. I'm convinced you can make a mark. One more profound than you can imagine right now. Be a bigger hero even than your father. You were destined for greatness, and that got derailed. But you can still arrive there by a different route. So watch about ten minutes of the movie. The opening scene and then a scene a little later. If you do that, and still want me gone, you'll never see me again."

"You're kidding, right? What, will I be hypnotized?"

"No. But I think you'll be *moved*. It's a reboot, so the timeline differs from the original, while keeping key elements. In this version, James T. Kirk is about to be born on the starship *Kelvin* while his father is the first officer. That's when an unstoppable Romulan ship from the future travels back through time and alters the timeline forever."

The colonel paused. "Watch ten minutes. That's all I ask."

Eric thought about this for a moment and sighed. "It won't help," he said. "But anything to get you out of here."

"Thank you," said Thomison, holding up his tablet computer so it faced Eric, since the patient could barely move. He brought up the movie in question and hit play.

The movie opened as the starship *Kelvin* was investigating a lightning storm in space. Suddenly, a massive Romulan ship emerged through the storm, dwarfing the *Kelvin*, looking like a swimming squid trailing a cylindrical cone of spiked steel tentacles behind it. The Romulans quickly proved the superiority of their ship, interrogated and killed the *Kelvin's* captain, and then began an unstoppable attack.

Kirk's father, now the captain after a battlefield promotion, ordered all hands, including his pregnant wife, to abandon ship. He then sacrificed his own life in a kamikaze move, making sure the crew got away by using the

Kelvin as a battering ram against the superior vessel. The scene ended with the *Kelvin* exploding while a multitude of escape pods inched their way through space to safety.

Eric was spellbound despite himself, strangely riveted to the screen as the tense and poignant scene unfolded. It was quite the compelling opening, even with 2009 special effects.

Colonel Thomison quickly fast forwarded to a scene that played out in a bar on Earth, where a young Jim Kirk, a miscreant and troubled townie who was going nowhere in life, had picked a fight with countless Starfleet cadets and was getting pulverized. The fight was interrupted by Christopher Pike, the captain of the visiting starship *Enterprise*, who entered the bar to intervene and sent the cadets packing.

With the bar cleared out, Pike sat across from a drunk and battered Kirk, whose face was covered in his own blood, but who still hadn't stopped drinking.

Eric had to admit there might be some real-world similarities between himself and this character.

The scene continued with Captain Pike explaining to Kirk how astonished he was to learn his identity, since Pike had done a dissertation on the *Kelvin* and Kirk's father.

"Why are you talking to me, man?" said Kirk on the tablet computer, slurring his words.

"Because I looked up your file while you were drooling on the floor," replied the charismatic captain. "Your aptitude tests are off the charts. So what is it? You like being the only genius-level repeat offender in the Midwest?"

"Maybe I love it," replied Kirk, sounding like a drunken idiot.

Pike was undeterred. "So your dad dies," he said. "You can settle for a

less-than-ordinary life. Or do you feel like you were meant for something better? Something special?”

There was a long pause.

“Enlist in Starfleet,” finished Pike.

On the tablet screen, a bloody Kirk snorted derisively, making a show of laughing at the very thought. “Enlist?” he repeated drunkenly, in disbelief. “You must be way down in your recruiting quota for the month.”

“If you’re *half* the man your father was, James, Starfleet could use you. You can be an officer in four years. You can have your own ship in eight.”

Pike paused, realizing he wasn’t getting through. “You understand what the Federation is, don’t you?” he continued. “It’s important. It’s a peacekeeping and humanitarian armada.”

“Are we done?” said Kirk.

“I’m done,” said Pike calmly. Then rising from his chair, he added, “Riverside Shipyard. Shuttle for new recruits leaves tomorrow at oh eight hundred.”

Kirk’s expression made his continued contempt abundantly clear.

Pike remained unperturbed. His steely gaze held steady on the drunk and bloody miscreant. “Your father was the captain of a starship for *twelve minutes*,” he said with immense gravity. “He saved *eight hundred* lives. Including your mother’s—and yours.”

He paused to let this sink in. “I dare you to do better,” he finished.

With that, Colonel Thomison halted the movie playback and returned the tablet computer to his side as silence engulfed the room. Eric was dismayed to find a tear had formed in the corner of his right eye. The scene was truly powerful, even if the parallels between himself and the young Jim Kirk *hadn’t been* so eerily obvious.

But they *were*. Like the Kirk in this movie, *Eric’s* father had died saving

lives. Had sacrificed himself so that others might live. Like Kirk, *Eric's* aptitudes were off the charts. And like Kirk, Eric had become a waste of life, spiraling downward, refusing to use his gifts as he wallowed in misery.

The silence lasted for what seemed like forever. Finally, Eric nodded. "Well played, Colonel. You're more clever than I gave you credit for. So give me your pitch. I'll at least hear you out."

The colonel didn't delay a moment, taking no chance Eric might change his mind. "Have you ever heard of something called Enhanced Human Operations?"

"Doesn't ring a bell."

"It's an ultra-elite group of American special operators who are enhanced using genetic engineering and breakthrough tech coming out of black-budget labs. At a cost of millions of dollars per operative. The program began eighteen years ago, in 2010, and the Obama Pentagon basically admitted it existed in 2015."

"Why would they do that?"

"They didn't have much choice. It was becoming clear China and others were investing heavily in such super-soldier programs. And *these* countries weren't trying to keep it secret. Which spooked a lot of people. So the disclosure was an attempt to calm nerves. The Pentagon claimed to hate the idea ethically, but insisted our hand was being forced."

"Okay, so it was disclosed in 2015. So why isn't it common knowledge? Seems like it should have dominated the news."

"Great question," replied the colonel. "I have no idea. The government has long since stopped bringing it up, and with nothing to fuel the fire, most people think super-soldier programs are purely science fiction. You'd think journalists would demand answers. Would sue for information and not stop until they got it. But most in this so-called profession have been strangely

uncurious for many decades now.”

“I guess the *why* of it doesn’t really matter,” said Eric. “For the sake of our discussion, what matters is that for some reason, you want me for this program.”

“Ultimately, yes. If you agree, you’d be earmarked for it. But you’d have to qualify, and doing so would make getting into the NFL seem easy. To say it will be brutally difficult is an *understatement*.”

“So why would I take this on?”

“To give yourself purpose again, a goal, which you sorely need. To challenge yourself against the best in the world to become truly elite. To live a life that’s both exciting and deeply meaningful. To use your once-in-a-generation talents to make a difference.

“And you won’t be doing it for money, or fame, or glory. You’ll be doing it to become more formidable than anyone who ever lived. To be part of a force dedicated to service and the safety of all humanity. To save countless lives. Possibly even entire nations.”

A wry smile came over Eric’s battered face. “Right,” he said in amusement. “A peacekeeping and humanitarian armada. Can I captain a starship in eight years?”

Thomison laughed. “If I had any starships handy, I’d say yes.”

“So just how brutal *is* the training?”

“Brutal enough to make what the Navy SEALs go through seem like a stroll in the park. Rigorous unlike anything you’ve ever been through, including elite-level football, both physically and mentally. You’ll be schooled in every branch of science and technology. In weapons and warfare. In spytech and spy methods. You’ll need to be able to survive in any environment and operate seamlessly behind enemy lines. And so on.”

The colonel paused for this to sink in. “But surviving the training with

high marks won't get you into EHO. Before that happens, you'll have to prove yourself in the field. Physical prowess and extraordinary endurance is a given. But you'll also have to show you're intuitive, decisive, courageous, smooth, resourceful—in short, *unstoppable*. And it won't just be your effectiveness on trial, but your moral character.”

Eric considered. “You know I have a bad right arm, right?”

“Your right arm works just fine for a mere mortal. It isn't the freakishly capable weapon that would have put you in the NFL, but it won't hamper you, either. If you're going to endanger your life, don't do it by fighting in a drunken haze against street thugs. Do it stone-cold sober, a superman among men, to protect all of humanity.”

Eric's eyes bored deep into the colonel's for almost five seconds, taking his measure. “Why me?” he said at last.

“You're too smart not to know the answer. Which is one of the many reasons we want you. You're the only genius-level repeat offender in the Midwest, after all—at least until Kirk comes along in a few hundred years. You're a world-class athlete who is already expert in multiple forms of martial arts. You're someone who has shown a superhuman level of dedication and discipline. Until your life was destroyed, you were widely known to have a strong moral center and an impressive character.”

“I appreciate the superlatives, Colonel, I really do. But *no one* would put themselves through the wringer you just described unless they were out of their fricking minds.”

“You're right. But to have a major impact on the course of human history, you *have to be* slightly out of your mind.”

A sly smile came over the colonel's face, and he raised his eyebrows. “The question isn't whether you're crazy, Eric. The question is whether you're crazy *enough*.”

The patient smiled despite himself. “Just for the sake of argument, say I agreed. There are likely to be a smattering of people out there who would recognize me, even many years from now. I’m guessing that would be a problem.”

Thomison grinned from ear to ear. “See, thinking like an operative already. Yes, even though you didn’t get NFL exposure, there will be people who will remember the great OSU quarterback.

“But we can fix that. You sported a brown beard and mustache while you were playing. As an operative, you’d be clean-cut, with your hair dyed black. And we’d plan to kill off Eric Raymond fairly soon. Fake the death you’re heading toward if you refuse my offer. So anyone who thinks you’re Eric Raymond will know they’re mistaken, since this promising young man is no longer among the living. We’ll change you up a few other subtle ways as well. And we’ll change your name, creating fake records and an internet footprint that will hold up to scrutiny.”

“You’ve really thought this through.”

“I have. I even have your new name picked out.”

“I’ll bite. What is it?”

“Liam Dunne.”

Eric snorted. “Liam? You know I’m not Irish, right? Is there anything about me that says *Liam*? I hate it. I may not sign up for your program, but if I do, Liam Dunne is out of the question. It’s an absolute deal breaker.”

“Of course,” said the colonel innocently. “I don’t know what I was thinking.”

PART 1

1

Thirteen Years Later

Major Liam Dunne neared the top of a grassy hill and stopped crawling to take a short break.

“*Hey . . . One,*” he broadcast telepathically to his personal AI assistant, housed in a tiny but immensely powerful optical supercomputer implanted in his brain, “*are you there?*”

“*I’m here,*” replied One telepathically, sending electrical impulses to the auditory center of Liam’s brain in such a way that he interpreted the voice as male.

Liam rolled his eyes. Just once he’d love to engage in more human-like banter with his able assistant. Just once he wished the AI would give him the flippant reply such a question deserved, like “I’m trapped in your thick skull, Liam, so where *else* would I be?”

But of course not. It was programmed to take every question with grave seriousness.

Liam had been there for the birth of this tech, had been the primary beta tester, in fact, and had pushed to have a sense of humor programmed into One and the thirty-six other AIs that were soon installed in his fellow EHO agents. But the pleas of Liam and the remarkable woman who had created the tech had fallen on deaf ears.

He had recently pleaded again for a humor module, but General Phil Thomison, five years from retirement, stubbornly refused. The tech had long been there to make this happen, but the general continued to insist the AIs remain all business to avoid the misunderstandings and lack of precise communication a humor module might inadvertently introduce.

Which was a shame, because humor was all that kept Liam sane. This

was even more the case after he had agreed to let Thomison fake his death and had embarked on a course that put his life in jeopardy on a regular basis.

The more dangerous the mission, the more his mind defaulted to humor, his coping mechanism to deal with the extraordinary stresses of the job. He had ultimately allowed himself to be born again under the name Liam Dunne, but only because he saw the potential for humor there.

Dunne was a homophone for Done, after all. So why not steer into it? If a hostile ever said, “Are you done?” he could reply, “Of course I’m Dunne. *Liam Dunne.*” When he forged an agreement, he could say it was a *Dunne Deal*.

It turned out that even though he *could* say such things, he never *did*. But at least he often amused himself in his own head. Actually uttering such inanities out loud would lessen the air of bad-assery he needed to project.

Ultimately, the man born as Eric Raymond had allowed himself only one inside joke when it came to his new name, and only after he had been calling himself Liam Dunne for many years. It was a running joke that occurred to him when contemplating what to call his brand-new AI, and he couldn’t resist it.

After naming his AI *One*, he had carefully explained that they were now a team.

They were One and Dunne.

The AI had failed to see the humor, of course. Oh well, if his AI wouldn’t banter with him, he’d just have to continue bantering with *himself*. Why not? He firmly believed in the sentiment of the famous poem. Roses are red. Violets are blue. I’m schizophrenic. And so am I.

Liam sighed and returned his full attention to the Iowa countryside he now found himself in. “*Any indication I’ve been detected?*” he asked the AI.

“*None. Multiple sensors and drones have scanned you. But I was able to*

successfully modify the signal they received in each case so you appear to be a whitetail doe.”

Liam grinned. “Doe?” he whispered aloud. “A deer? A *female* deer?”

“*That is correct,*” replied One, playing the straight man, as always.

“*Good work,*” replied Liam telepathically, a smile still on his face. The AI might not have a sense of humor, but his electronic companion was absolutely indispensable.

He crawled on his stomach until he crested the small hill he was on, peering over it at the great beyond. He had left his vehicle behind—for now—so he could do a visual reconnaissance before his op began. It was less than two hours before nightfall, plenty of time to ready himself. He was dressed all in brown, in the uniform of a UPS driver, and he would return to his mock UPS delivery truck momentarily.

His plan didn’t call for him to pretend to be a delivery driver, but it was always best to have a cover in case he was seen by a civilian.

Under his UPS uniform, hugging every inch of his body from neck to toe, was a thin, lightweight jumpsuit of breakthrough body armor composed entirely of carbyne nanomesh material. This fabric cost orders of magnitude more than its weight in diamonds, but miraculously hardened when hit with fast-moving matter, and could absorb and dissipate the force of high velocity ammo in a way that was truly miraculous.

Once festivities began, he would don his combat vest, containing numerous pockets bulging with all sorts of lethal goodies, slip a carbyne nanomesh ski mask over his face, and he’d be nearly invulnerable.

With *nearly* being the operative word.

He ordered One to magnify his smart contact lenses twenty-fold as he surveyed what was purported to be a corn farm, complete with processing and packaging plants. At the same time, he had the AI project tiny 3D

holographic images of the farm through his lenses, taken from a spy drone four miles overhead. The images were invisible to anyone but Liam and seemed to hang in midair about a foot from his eyes.

The compound he was surveilling covered almost ten thousand acres, although, since corn wasn't planted until the end of April, the land was now barren and would remain so for a few weeks longer. The farm had been purchased by Chinese interests just eight months earlier. Like many purchases, the company doing the acquiring was simply a convenient front for the Chinese Communist Party and the dictators in charge.

The compound was bound by woods all around, and an innocent-looking chain-link fence, although no one could get anywhere near it without being politely escorted away. If a party persisted and tried to breach, well-concealed guards and automatic armaments would make short work of them.

Seven buildings, which had been part of the purchase, were clustered in tight formation near the center of the compound, but these would end up being the tip of a subterranean iceberg. Extensive facilities, barracks, and VIP quarters would be buried underground. At the moment, the site was manned by a skeleton crew until this construction was completed.

Iowa was the largest producer of corn in the US, at almost three billion bushels annually, and the compound Liam faced was one of thousands of Chinese-owned farms in America as they continued buying up US land at a furious pace.

Only *this* parcel of land was no longer just a farm. Instead, it was being transformed into what was basically a mini Chinese military base in the heart of America. A dire threat Liam himself was responsible for uncovering.

Less than a year earlier, *Ostech*, which stood for Oliver Scott Technologies, had come out with yet another breakthrough invention, a fully automated machine capable of boring tunnels at over half a mile per day,

more than a hundred times faster than anything previously available. The machine used a dense array of plasma torches, burning at seventy thousand degrees Fahrenheit, to vaporize rock like it wasn't even there, and had aptly been named the "Plasma Torch Seventy Thousand," or PT-70K.

Liam reasoned this new tech made excavations so quick and easy the Chinese wouldn't be able to resist using it to build extensive subterranean bases around the world. On a hunch, he spent three weeks tracing a stolen shipment of forty-two such machines. After a heroic effort akin to finding a pea hidden under a million shells, he traced the missing excavators to Iowa. All of them. They had arrived just twelve days earlier.

Based on intel Liam had been able to gather on the site from a Chinese mole—once Liam knew where to point him—he learned that the base would be buried underground. Over a hundred miles of drivable tunnels would radiate out from its center, leading to dozens of concealed exits.

Such a system would allow undetectable movement of massive amounts of equipment and personnel in and out. The base would support Chinese intelligence operations and operatives throughout the US.

The boldness of the Chinese government was off the charts. The CCP was totalitarian and made no bones about its plans to dominate the globe—but it also had balls the size of, well . . . *China*.

Liam decided he had seen enough and began crawling back down the hill, preparing for a three-mile hike back to his fake UPS delivery vehicle.

"*You're still monitoring base communications, right?*" he asked the AI.

"*Of course.*"

Liam had shot a tiny, Wi-Fi-enabled AI chip, housed inside a hollow bullet, into the center of the compound five nights earlier, one that had cost over two million dollars to create. The bullet AI had been working around the clock to hack the compound's exceedingly sophisticated computer system,

succeeding just the day before. It had then created a backdoor for One, who was now able to both listen in on the hostiles' comm systems and also actively transmit—and hopefully a lot more.

“And you still haven't detected a single communication from a colonel named Yang Yi?”

“I would have told you if I had.”

Liam frowned. The intel he'd personally uncovered indicated Yang was the base commander. *“Keep monitoring,”* he ordered unnecessarily. Liam had given the AI strict instructions to record any communications from Yang and be ready to impersonate him.

“Roger that.”

“What about intercepting the feeds from their on-site surveillance cameras?” asked Liam.

“I'm making good progress. I believe I'll gain access within the next ten minutes.”

“Any luck burrowing further into their computer's security module?”

“I'm afraid not,” replied One. *“I'll be able to stop their automated security from operating, including their drones. But only for a short time. And I won't be able to turn their own systems against them as you had hoped.”*

“Understood.”

“Also, these systems tend to change passwords and entry configurations quite frequently, so I could be locked out at any moment, losing my ability to block their defenses entirely.”

Liam swallowed hard. *“Well, that would make this a wee bit more challenging, wouldn't it?”*

“I estimate it would make this considerably more challenging,” corrected the AI helpfully. *“But even best case, their AI should be able to*

regain control within twelve minutes of the attack.”

Liam nodded. That should give him plenty of time, but it was always good to be on the safe side. *“I need you to do everything you can to delay that from happening,”* he broadcast. *“If any One can do it . . . you can,”* he added with a grin. *“You’re truly the One for the job.”*

Why did these stupid jokes keep entering his head? He must be more stressed than he thought. *“Focus everything you can on it.”*

“Roger that,” replied the AI.

“Have you and the recon drone managed to get an exact count of personnel on-site?”

“Negative. Most are working underground. Best estimate is between forty-nine and ninety-eight.”

“Way to narrow it down,” broadcast Liam wryly.

“Thank you,” replied One. *“I should add that an extremely high percentage of their personnel are likely to be heavily armed and well-trained commandos.”*

Liam rolled his eyes. *“Thanks,”* he broadcast back. *“That’s very comforting.”*

“I’m happy to help,” replied One without a hint of sarcasm.

2

Colonel Yang Yi studied his prisoner, Brianna Cutter, through a two-way mirror as she sat on a cot with her eyes closed, striving for an almost zen-like tranquility. She had been incarcerated in the small holding cell for nearly two hours now and had displayed a calm demeanor throughout, realizing she had no chance of affecting her current situation and accepting it without becoming unhinged or emotional, and without panicking.

Yang was the head of North American Intelligence Operations for China's People's Liberation Army, and had to admit the girl was behaving exactly as he would have done in similar circumstances. She was remaining calm, saving energy, and waiting patiently until there was something more to think about, something more to do.

She was wearing a standard tan jumpsuit and sneakers they had provided after her own clothing had been removed and incinerated. Still, even this drab outfit couldn't diminish her physical appeal. She was quite attractive, despite Yang's preference for Chinese features. Likely in her early thirties, she looked even younger, with a slim, athletic figure, hazel eyes, a flawless complexion, and a symmetrical, feminine face.

And she was as bold as they came. A week ago, she had had the nerve to reach out to the top intelligence official in all of China, General Ren Hong, the Director of the Ministry of State Security, himself. And just hours earlier she had outdone even that, waltzing up to the manned gate of the "corn farm" and requesting to be taken to Yang as if she were holding a pitcher of lemonade and making a social call.

It remained to be seen whether this was the smartest move he had ever seen—or the dumbest—but he was betting on the latter.

The colonel ordered two men, both operatives with South China Sword, the Chinese equivalent of the Navy SEALs, to drag her into a large, windowless room that served as the base's temporary control center, but also a conference and interrogation room.

The walls were covered by millimeter-thin monitors that could display video feeds from the dozens of cameras on-site, as well as footage from an army of tiny drones patrolling the grounds. The room's walls blocked all electromagnetic signals from entering or leaving, but monitors and small oval communication devices were connected by hidden cables to a computer system just beyond the walls that would relay the wireless feeds inside.

Yang entered the spacious room, which was situated in the center of what had been the administration building of the farming and packaging complex. The building was aboveground and ringed by six others. He had his men seat Brianna Cutter at one end of a large conference table. In seconds they had leashed her in place, threading an inordinately long zip-tie around her slim waist and the back of the black office chair, creating a seat belt that couldn't be removed.

The colonel took a seat at the end of the long table opposite his prisoner and dismissed his subordinates. Once the door was closed behind them, he placed a small semi-automatic weapon on the table in front of him, for intimidation purposes and out of an abundance of caution. Every last inch of Brianna Cutter's body had been examined—inside and out—which included not only her mouth but far more private regions, and no weapons, beacons, bugs, or anything else had been found.

Brianna stared at Yang as though sizing him up, instead of what should have been the other way around. This was a girl who didn't intimidate easily.

"I'm Colonel Yang Yi," he began in flawless English. "You asked for me. You got me."

“You sure took your sweet time about it,” said the prisoner in contempt. “Time we may not have.”

“What are you doing here?” said Yang. “How could you possibly think this was a good idea?”

“Come off it, Colonel. I’m here to save your ass, as I’m sure you’ve guessed. The real question is, what are *you* still doing here? I told your boss in Beijing almost a week ago that the US has become aware of this base. Not abandoning ship immediately is epically stupid!”

“You do know I hold your life in my hands.”

Brianna snorted. “Maybe, but I’m trying to *save* yours. Your boss, General Ren, knew I was giving him good intel. He had to have been impressed I knew about this site. When I offered my services to the CCP, I expected your people to vet the hell out of me. To climb up my ass with a microscope.”

She glared at him in contempt. “Although I had no idea until I got here just how *literal* that statement would end up being,” she added pointedly. “But, at minimum, I thought he’d order you to get the hell out of here. To live to disrupt America another day.”

“So you came to Iowa to warn us in person, is that it?”

“Yes!” she said emphatically.

“Why? Because of your undying love for the Chinese people?”

“The Chinese people have nothing to do with it. Besides, they’re mostly decent and well-meaning—and I have no use for either trait. I came to warn you because of my undying love of the money and power your government can help me accrue. I could just let you stay stupid and get massacred. Believe me, I wouldn’t lose a second of sleep. But if I *save* you, I prove my value even more, and my price skyrockets.”

She was quite the blunt ball-buster, he had to give her that. The intel

they'd gathered on her after she had reached out to General Ren didn't begin to capture her true essence. No wonder she'd moved up to second-in-command of the NSA's China desk at such a young age. She was smart, predatory, bold, and ruthless—a potent combination.

“Since you ignored my threat,” continued the prisoner, “I can only guess you've bought off so many high-level people in our government that you aren't worried about much of anything. I have to say, I love your tactics. You pay handsomely, yes, but the ability of your intel agencies to find skeletons in closets is unsurpassed, allowing you to wield both a carrot and a stick.”

Yang could tell that Brianna Cutter knew what she was talking about. The greed and corruption of American officials was growing at a furious pace, a weakness China was only too happy to exploit. And she was a prime example.

“I'm so glad you approve of our methods,” he said, rolling his eyes. “That really means the world to me.”

“Wow, Colonel, a glimmer of sarcasm. I thought you Chinese weren't big on that. Although, I have to say, your accent and mastery of idiom is perfect. You seem more American than I do. Bravo on the training you guys get to blend in.”

Brianna raised her eyebrows. “But sarcastic comments aside, I notice you didn't tell me I was *wrong*.”

“We appreciate your warning. But we can take care of ourselves.”

“No, you really can't. The officials you have in your pocket make you foolishly overconfident. Same with your automated defenses, which give you the illusion of invulnerability.

“Which is why you're so lucky *I'm* here,” she continued. “Because—news flash—the people coming for you *are not* in your pocket. Aren't in *anyone's* pocket. The man who discovered your operation is with EHO—

Enhanced Human Operations.”

“Now I *know* you’re lying. EHO operates the same way *our* enhanced unit operates—independently. Your own people have no idea what they’re up to. Not even the head of your NSA.”

“Yet *I* do,” said Brianna smugly. “Which—*again*—is why you need me so much. Because we both know EHO is untouchable. That you’ve been unable to infiltrate them or track their activities. But I have. I’ve managed to find a backdoor way in.”

“And what backdoor way is that?”

“If I told you, *genius*, you wouldn’t need me. But I can use my access on your behalf. I just need three things. First, money. *A lot* of money. Second, your help getting the right leverage to rise up the ranks of the NSA and beyond. Which will benefit you also. And third, I want to deal exclusively with General Ren and Beijing.”

She paused to be sure Yang absorbed her demands.

“No offense,” she continued, “but you’re a bit too small potatoes for my needs. I’ve been brushing up on my Mandarin. My plan is to move to China in ten years. Until then, I intend to make so many high-level contributions to the CCP that they’ll be throwing me a ticker-tape parade when I finally relocate.”

She raised her eyebrows. “Given what I’m offering, you guys are getting the deal of the century. Adding EHO to China’s list of infiltrated agencies will complete your collection. Eliminate your last vulnerability. And trust me, these EHO guys have a seriously overdeveloped sense of patriotism and right and wrong. Way too sanctimonious if you ask me. At the risk of being repetitive, I guarantee you’ll never crack them on your own.”

“Which is why I’m so sure you haven’t either.”

“Believe what you want. But when you’re drawing your last breath,

Colonel, and counting all the new holes in your body, don't say I didn't warn you."

She paused to let her words sink in.

"I haven't pinned it down," she continued finally, "but early this morning, I intercepted intel suggesting the strike is *imminent*—which is why I rushed here in person to save your ass. My guess is that the attack will begin shortly after dark. And there isn't much sunlight left. If you would have talked to me when I arrived here, and listened to *reason*, you and your men could have already sanitized this site and evacuated."

The colonel rubbed his chin in thought for several seconds and then pressed a small button on a black mesh oval in front of him, clearing his throat as if preparing to speak.

"What is that?" asked Brianna, gesturing to the small oval device.

Yang eyed her irritably and switched the device off. "This room is our command center, so all EM signals, in or out, are jammed, as an added precaution."

"I see," said Brianna. "So that oval is an old-fashioned mic and speaker, hardwired through the floor to a transmitter outside this room. So you and your men can still communicate while you're in here."

"Essentially correct," said Yang.

"Wow," said Brianna in disbelief. "You guys are *this* anal about securing your control center from sensors and prying eyes—while completely ignoring an *actual* threat?"

"I was about to address your so-called threat now," he said, a hint of anger seeping into his otherwise measured tone. "Before you interrupted with your question."

With that the colonel activated the device once again and issued a series of commands in Mandarin, which were answered by at least three different

voices.

“So what orders did you give?” asked Brianna when the exchange was complete.

“I thought you were brushing up on your Mandarin.”

She smiled. “Looks like I have a long way to go.”

“I ordered all seventy-four men not in this building, including many who were working underground, to gather in strategic positions aboveground and prepare for an attack. I diverted six of these seventy-four to join the four men already in this building. So ten armed warriors will be guarding every possible approach to the room we’re in.”

Yang paused, and then waved a hand toward his prisoner. “Happy now?”

Brianna shook her head. “It won’t help,” she said grimly. “You have no idea what you’re up against. Your only chance is to abandon ship. Quickly! If you won’t, then *I* will. Nightfall is coming. Just make sure to call your boss the second I’m gone and tell him I tried to get you to leave. That way, after you and your men are massacred, General Ren will appreciate what I tried to do.”

Yang considered the woman before him. If she were simply acting, she was damn good at it. “Hard to believe your fantastic claims when you won’t tell me anything more about your hack, your source. So give me *something*. The general planned to get back to you soon, anyway, and ask you to provide bits of intel gradually, so we could build trust. Unlike you Americans, our people can be very patient. Yet another reason we’re destined to dominate the world.”

“Spare me the sales pitch. You *already* dominate the world. Which is why I’m switching sides. But I’ll bite. The operative who ferreted out this site—I haven’t been able to get his name—did so by tracking a bunch of Ostech’s breakthrough tunneling machines. That’s what tipped him off. What

pointed him in the right direction to untangle the basics of what's going on here.”

Yang kept his calm, but inside he was rattled. He had orchestrated the theft and transportation of the PT-70Ks himself and had made sure their route here was so hidden and circuitous *he* could barely trace them. Perhaps he *had* become recklessly overconfident.

The Politburo had been quite worried about authorizing Yang to steal the excavators from Oliver Scott, the British namesake of Ostech. They were far more worried about getting on the Brit's bad side than they were worried about the entire US intelligence apparatus.

Oliver Scott was the only party on Earth the Politburo truly respected—and feared. In fact, China had been furiously trying to assassinate the man for several years now—using non-Chinese mercenaries who couldn't be linked back to Beijing. With each failure, Scott's legend within the Politburo grew. The reclusive trillionaire had no idea China was trying to end him, and the last thing Beijing wanted was to provoke a man who could damage them in unimaginable ways.

The damage he had already inflicted on the CCP, without even *trying*, was devastating enough.

During the past five years, Oliver Scott had come out with an unprecedented string of game-changing, blockbuster technologies, one after another. As his wealth and power skyrocketed, he had purchased hundreds of islands and millions of acres of land around the world, and boldly declared himself the leader of his own sovereign nation, which he named Ostonia.

A trillionaire inventor forming his own country was ridiculous, but he easily met the minimum international requirements for such by establishing a defined territory, a government, a permanent population, and formally declaring his independence. Other independent countries had been founded in

recent decades, but Scott's vast wealth and unsurpassed inventiveness made Ostonia a force to be reckoned with.

The man was getting too rich and powerful for anyone's good, and his inventions had often become a problem for the CCP, including an inexpensive, enigmatic algorithm able to distinguish real video from fake, with absolute accuracy.

China had been using perfect deep fake videos to shape people and events around the world, but after Scott's invention shined a bright spotlight on the true extent of China's lies, duplicity, and manipulation, the country was dealt a devastating blow. One from which it was still reeling, both domestically and internationally.

Yang stared deeply into Brianna Cutter's eyes. "This disclosure does add to your credibility," he admitted. "It seems you're able to access more detailed intel than I thought.

"But even if you're right about an attack on this site," he continued, "we're in no danger. Your people would never risk a missile or air strike on American soil. We can detect incoming missiles and aircraft in time to activate an EMP, anyway, which would down them before they got anywhere close."

He paused. "And an attack on the ground won't work either. A strike force approaching on foot, no matter how large, will be detected and bombed into ashes before it can get within two hundred feet of this compound."

"That would be true if a strike force were coming. Even a small one. But a single EHO agent, working alone, can slip through your sensors."

Yang laughed. "Are you kidding? We have defensive armaments you can't imagine. There are now more than seventy seasoned special forces soldiers aboveground, armed to the teeth, and ready for war. Trust me, even if *twenty* EHO soldiers managed to breach this compound, which would never

happen, they wouldn't stand a chance. But *one man? Alone?* That's *ridiculous.*"

Brianna sighed. "Do you have any of your own EHO people here?"

"No. They're spread too thin, and we don't need them. The special forces commandos assigned to this base are already overkill."

For just a moment the prisoner looked ill, but her face quickly recovered a studied calm. "Okay, then," she said, trying to sound upbeat. "I guess you have everything well in hand. So if you could just cut me loose from this lap-belt restraint, and be sure to tell your boss about my visit, I'll be on my way. I hate to stay out after dark."

"That's too bad," said Yang grimly. "Because you aren't going *anywhere.*"

Brianna Cutter blew out a long breath. "I was afraid you might say that," she replied miserably.

3

Liam Dunne crouched inside the well-padded fortress that doubled as the cargo compartment of his faux UPS delivery truck. The sun had already set, but he was waiting for complete darkness to fall, which would take a few more minutes. He studied a variety of camera feeds from the compound that One continued to intercept and provide to him. The picture had become all too clear.

Sixty-eight soldiers could now be detected either by the drone above, or the site's own security cameras. The AI had finally intercepted and translated a communication from Yang, who had ordered every soldier on-site to return to the surface and arm themselves. They were clearly ready for bear.

But were they ready for *him*?

Yang's communication had originated from inside the central building, the only one without a single surveillance camera, and One had used his access to the base's computers to get specs on the building and confirm it was their temporary headquarters.

Strangely, One had detected a signal dead zone in the middle of this building, yet the commander's communication had emanated just a few feet outside of this heavily dampened zone. Further digging had revealed the dead zone served as the base's command center, which was hardwired to a computer and transmitter just beyond the room, which could relay communications to and from those inside.

After additional probing, One confirmed he'd be able to block communications to and from the command center, but only until Yang realized it was happening and manually overrode the AI's interference. Still, it should be enough.

Liam stripped down to his skin-tight bulletproof suit, which showcased his lean, rock-climber musculature, and which was colored black so he'd be nearly invisible in darkness. He donned a black combat vest, pulled a carbyne nanomesh ski mask over his head, took a deep breath, and strapped himself into a six-point harness firmly affixed to the back wall of the fully padded cargo compartment.

This was going to be the ride from hell.

The truck was an engineering marvel, putting most tanks to shame. It weighed in at over nine tons, was armored inside and out with carbyne, and sported several extendible turrets, along with armor-protected, recessed cameras facing all compass points.

A triple-layer battery stack provided race-car acceleration and performance, despite the truck's gargantuan weight. These offensive and defensive capabilities, along with a long list of others, turned what appeared to be a standard UPS delivery truck into what was arguably the most formidable vehicle ever constructed.

Liam just hoped it would be formidable enough.

It was time to find out.

"One," he began out loud, "are you still able to suppress their security measures?" Now that he didn't need to stay quiet, he preferred speech rather than telepathy, since this was more natural.

"Affirmative," replied the AI's voice in his ear.

Liam blew out a long, relieved breath. "Remember, fight off all efforts their AI makes to regain control with everything you have. Seconds matter."

"Understood."

"Tile the feeds from the truck's cameras so they hover to my left. And the feeds from the compound so they hover to my right. I want full acceleration and best possible speed to the closest, most accessible point on

the site's perimeter.”

“Destination calculated and locked in.”

“Good. Start the engine and let's get moving.”

They shot forward and accelerated rapidly, pressing Liam against the padded back wall. Within two minutes they had sprinted over three miles while Liam watched the feeds in silence.

“Their system just tried to launch multiple missiles at us,” announced the AI when they were half a mile from the perimeter. “I stopped them, but the system is now aware I've infiltrated, and has begun to take active measures to expel me.”

“Understood,” said Liam grimly.

As they continued to barrel forward, several banks of elevated stadium lights sprang to life around the cluster of buildings inside the base's perimeter, turning night into day, as if illuminating a sporting event about to take place.

“Going off-road now,” announced One, braking hard to cut their velocity.

They were now within sixty yards of the fence line. The AI analyzed the incoming data from cameras and sensors to choose the ideal path through the rough terrain and calculate the maximum speed they could travel without crashing. Even so, Liam was shaken savagely, despite the harness and padded walls, as if he were being pounded by a jackhammer.

The truck crashed through the chain-link fence and was instantly barraged by machine-gun fire from more than sixty soldiers, as well as dozens of thrown grenades, which stripped the vehicle's nearly indestructible airless tires down to their carbyne rims and rattled the sole inhabitant even further.

Every last millimeter of UPS façade was quickly annihilated under the

ferocious onslaught to reveal the truck's armored carbyne innards, like a Terminator whose skin had been peeled away to reveal its gleaming alloy skeleton.

The indestructible truck finally skidded to a halt in the middle of a large, barren expanse of well-lit land, forty yards out from the buildings, hitting Liam's intended mark exactly. Seconds later the vehicle's automatic countermeasures sprang to life and destroyed several incoming rockets delivered by shoulder-fired launchers.

The intercepted feeds from the base's surveillance cameras showed a daunting array of soldiers in dispersed, entrenched positions. Several were beginning to bring heavy artillery to bear after realizing the automated systems weren't working, not content to wait until they could be manually overridden.

"One, the next time I say *begin message*," said Liam hurriedly as the onslaught intensified, "translate whatever I say next into Mandarin and broadcast it in Yang's voice over their general channel. *Immediately*. Stop when I say *end message*. Be sure to block transmission to Yang's bunker, so he won't hear our impersonation and work to countermand my orders."

"Roger that," replied the AI.

"Begin message," said Liam, continuing to speak as fast as an auctioneer. "This is Colonel Yang. All forces cease fire! *Immediately!* I repeat, all forces cease fire!"

The deafening cacophony of machine-gun fire and heavy artillery abruptly ceased, and Liam finally stopped being shaken like a cocktail in the hands of an overzealous bartender.

"Sensors indicate there is one man hiding in the cargo compartment of the vehicle," he continued, knowing One was still dutifully transmitting his words in Yang's voice. "I want him alive. He's an American EHO agent, and

since sensors and intel both indicate the truck isn't rigged to explode, and contains no offensive capabilities, I need all of you to surround it. Quickly! I want him to see such a large, formidable force of men and heavy armaments that he knows trying to escape or attack is *suicide*.

“Hurry! I can't overstate his lethality. He can outrun and outgun all of you, so encircle the vehicle completely before he can emerge.”

He paused. “End message,” he said for One's benefit.

Liam watched in delight as Yang's elite soldiers sprang into action to carry out what they thought were Yang's orders, rushing toward the truck and forming a perimeter about ten yards away on all sides.

Perfect!

So far, so good.

The many screens covering the walls of the temporary command center were now displaying views from dozens of cameras, but Colonel Yang Yi focused on only one, which showed a small truck crashing through the outer fence and instantly getting hit with enough machine-gun fire and other munitions to stop an *army*. In seconds, the vehicle was battered, its tires obliterated, and it was picked clean of everything but several cages of armor that protected vital parts.

Still, while pieces of its outer body left a trail of burning, smoking debris behind it, the vehicle miraculously remained intact and continued moving forward. But just when Yang was beginning to worry, it limped to a halt in the expansive buffer zone between the outer fence and central buildings, utterly helpless.

The EHO agent had somehow been able to block their extensive defense measures, missiles and drones alike, but Yang's men were readying heavy

munitions, which should finish the job even before automated systems came back online.

He shot a quick glance at his prisoner. “Well, that was easy,” he said with great satisfaction. “I guess your EHO agents aren’t superhuman, after all.”

“What are you *talking* about?” said Brianna Cutter, looking more anxious than ever. “He got inside your perimeter, which you claimed was impossible. And if you hadn’t finally listened to me and prepared for him, he’d still be going. Even so, do you really think you’ve won? Wasn’t that a little *too* easy?”

Yang stifled a gasp. She was right! The reality of the situation flashed across his mind in an instant. The attack made no sense. What could the American agent hope to accomplish by crashing through the fence and driving headlong into the teeth of their forces? He had infiltrated their systems, so he must have known they were waiting for him.

So he likely wasn’t even in the vehicle. It was a diversion, holding their attention while the real attack happened elsewhere. The truck was likely packed with explosives, which the American operative would trigger when he needed yet another diversion.

Yang activated the transmitter and opened his mouth to issue orders over the general channel when his eyes widened in horror. On the screen, his men had ceased firing and were rushing to the stopped vehicle, forming a tight circle around it.

What were these idiots doing?

A first-year cadet would know they needed to stay spread out and entrenched, keeping a healthy distance from their trapped quarry.

Instead, they were playing right into the attacker’s hands. These were trained commandos who were marching like mesmerized moths to a deadly

flame.

“All forces, retreat!” he screamed into the mic in Mandarin. “Get out of there! What are you doing? That truck could be booby-trapped. Disperse immediately and watch for an attack from other quarters.”

On the monitor, the men continued to surround the truck like zombies, like a school of tuna throwing themselves into a fishing boat.

“Major Su, report!” demanded Yang, unable to keep the panic from his voice.

He waited several seconds, his heart almost exploding through his chest, but there was no reply. It finally hit him that his communications were being blocked, and he raced to the computer just beyond the room to regain control.

But in his heart, he knew he'd be too late.

4

Liam Dunne unhooked his harness and moved away from the padded wall, toward the center of the cargo compartment, wasting no time congratulating himself as over sixty soldiers continued to close on his position.

“Are winds still negligible?” he asked his AI.

“An analysis of the movements of tree leaves indicates a southwest—”

“Spare the details!” interrupted Liam. “If we launch the gas canisters now, can you compensate for any wind and ensure that all the soldiers around us are engulfed?”

“Yes, if we launch in the precise pattern I’ve calculated, and detonate at an altitude of seventeen feet, we’ll achieve complete coverage. Unless their positions change significantly, or there are prolonged gusts of unexpected winds just as the gas is released.”

“Good enough,” said Liam urgently. “Deploy now!”

Armor-protected recessed turrets in the truck slid open, and dozens of canisters were shot into the air, exploding violently an instant after launch. Within seconds, clouds of potent gas blanketed the men surrounding the vehicle, and they collapsed to the ground before they even knew what hit them.

Colonel Yang Yi rushed back into the command center as bile rose in his throat.

He had regained control of communications but he had been too late, as

expected. Monitors showed all the men outside littering the ground like so many felled logs, dead from some kind of rapidly acting lethal gas.

It had all happened in what seemed like the blink of an eye. Yang still had ten trained commandos with him in the headquarters building, but he somehow felt utterly *helpless*. As if they didn't stand the ghost of a chance against this brazen attacker. As if this man were absolutely *unstoppable*.

It wasn't that the EHO agent had triumphed against what should have been insurmountable odds. It was that he had triumphed so *easily*.

The commandos were guarding every artery leading to the command center. Given the corridors were long and cramped, there should be no way for the American to sneak up on them. Yet Yang still felt like a mouse cornered by ten cats, when it should have been the other way around.

"Colonel," said Brianna Cutter urgently behind him, "I have an idea. It's our only chance."

He spun around, desperately wanting to scream at her in contempt, but he fought off the urge. He knew the reason he despised her so much was that she had been *right*. Given her track record, and his lack of a plan, he had nothing to lose by hearing her out.

"What?" he snapped angrily. "What is it?"

"These EHO operatives have computer implants. In combination with smart contact lenses, this makes them *perfect* shots. Hitting-the-wings-off-a-fly perfect. Plus, they have superior strength, speed, and endurance, even *before* accounting for a host of enhancements."

She paused. "But they do have *one* weakness. They're ethical to a fault. Old school in their chivalry."

"So what?" said Yang.

"So *this*," she replied. "You have *me*. A damsel in distress. A pretty *hot* damsel, if I do say so myself."

Yang stared at her with renewed interest.

“I’m the only card you have left to play,” she added. “So let me help you play it.”

“Every enemy combatant who was surrounding this vehicle is down,” announced One unnecessarily.

Liam didn’t bother replying as he exited the armored vehicle, still dressed in a bodysuit and combat vest, and stood behind it so it would act as a shield while he made preparations.

The hostiles would be knocked out for almost eight hours. He could have easily chosen a lethal gas. In fact, that would have been his superiors’ preference. And he wouldn’t have been challenged, legally or ethically.

The Chinese here were all foreign soldiers operating without uniforms in enemy territory, making them spies and saboteurs under international treaty. No nation on Earth could expect an unsanctioned military installation discovered on foreign soil not to be attacked with full . . . prejudice.

Still, Liam only killed when necessary. And while his superiors only wanted a few of the hostiles kept alive for interrogation, Liam didn’t care. He wasn’t about to take the lives of these men—even though they had been desperately trying to take *his*—just to avoid leaving a severe bureaucratic headache behind.

He now gripped a rapid-fire tranq gun in his right hand and the latest APC9K compact submachine gun in his left—just in case—and eyed the headquarters building forty yards away. It was the only structure still harboring enemy combatants, and continued to be bathed in light.

Liam’s genetically enhanced speed and strength would get him to the building in just over four seconds, and his body armor could take multiple

hits. Still, he wasn't about to give the enemy even the slightest window of opportunity.

Thirteen years earlier, when Phil Thomison had visited him in a hospital in Dayton, he had longed for death. But now he held his life in the highest regard. The risks of his job were unavoidable, but he would go to great lengths to minimize them as much as possible.

"I'm intercepting a communication from the base commander," announced One, just as Liam was about to issue further orders. "And it's meant for you."

5

“This is Colonel Yang Yi,” said the base commander in English into the oval comm. “Calling for the operative who breached this site.”

There was no reply.

“I repeat, this is Colonel Yang Yi, calling for the operative now on our grounds.”

He glanced at Brianna Cutter in disgust, infuriated by his helplessness, by the fact that she had become his only hope of survival.

“Whoever’s out there, I know you can intercept our communications,” he added. “So you have no reason not to respond.”

“This is Major Liam Dunne,” said a disembodied voice, deep and self-assured. “Thanks for calling, but the answer is *no*. I’m quite happy with my current phone plan and don’t want to change it.”

“What?” mumbled Yang stupidly, not able to process the man’s flippant reply.

“Why have you contacted me, Colonel?” demanded the American voice, this time in a tone that was all business. “I assume you’d like to surrender.”

The colonel’s eyes flashed with anger. What *arrogance*—even if it was fully deserved.

“Not a chance, Major. I’ll chalk that up to another poor attempt at humor on your part. You can’t really expect me to surrender. You just killed more than sixty of my men with lethal gas. Breaking a *host* of international laws.”

“Do you really want to debate which of us is breaking more international laws?” replied the man calling himself Liam Dunne. “The deaths of your people are on *your* head, Colonel. But let’s move on. What other reason do you have to call me, if not to surrender?”

“To negotiate.”

“*Negotiate?*” said the American in disbelief. “Now who’s making a poor attempt at humor?”

Yang fought to ignore his growing rage. “First, you should know I’ve already wiped our computers beyond any recovery. And we keep no paper copies of anything. So you won’t be seizing any intelligence.”

“I didn’t expect to. I simply expected to kill you and your people. I expected to root you from this base like an infestation of cockroaches. Since you have nothing I *want*, your negotiation has no hope of success.”

“That’s where you’re wrong, Major. I do have something you want. Or rather, *someone* you want. Just last night, we kidnapped a high-ranking official with the NSA. We had her brought here this morning.”

“*Her?*” said the American.

“That’s right. She’s currently my hostage. I was just about to torture her for information when you arrived. She’s second-in-command of the NSA’s China Desk. We figured it was time to learn what the NSA knew about our activities, despite the risks involved.”

Yang paused. “I assume you’ve tapped our surveillance cameras as well.”

“Correct.”

“Good, I’m turning one on inside our command center now. It will show you my hostage. You’ll see she’s helpless, strapped to an office chair with a zip-tie around her lap and her hands secured behind her back. But you’ll also see she hasn’t been harmed. At least not *yet*.”

Yang let the threat hang in the air. “Based on what you’ve been able to accomplish, I have no doubt you’re an American EHO agent. Which means you have a supercomputer in your head. So I’m sure you’ll be able to quickly check her image against a database and confirm her identity.”

Yang switched on the camera and waited.

He didn't have to wait long. Liam Dunne exhaled loudly. "Okay," he said miserably. "Looks like you've captured a woman named Brianna Cutter. That's quite the catch."

"Quite the *dead* catch if we can't come to an understanding."

"I want to speak with her."

"Go ahead."

"Brianna. This is Major Liam Dunne. Are you okay?"

A tear leaked out of Brianna's right eye, and Yang marveled at her acting chops.

"Yes," she replied as several more tears slid down her cheeks. "But only because of *you*. This asshole was just about to start torturing me for information. Talk about perfect timing, Major. I'll never be able to thank you enough."

"Don't thank me quite yet," said the American solemnly.

Yang switched the camera back off. "Okay, you've seen her and spoken with her," he said. "Satisfied?"

"What do you propose, Colonel?"

"I have ten men in here with me, as I'm sure you know. Let us walk and we'll leave the girl behind—without a scratch on her. Your side will still get a big win. You'll have shut us down here and prevented the interrogation of a key player in your intelligence apparatus. Not to mention saving the life of an innocent woman."

"And if I refuse?"

"Then she *dies*. Horribly. And we'll fight you off with everything we have. You may still win, but we outnumber you ten to one. You could well lose everything, including your life."

Yang held his breath as a long silence settled over the proceedings.

“No deal,” said the American major finally. “She knew the risks of the job when she signed on. She knows our policy of not negotiating in this type of situation.”

There was a long pause. “But I *will* make you a counteroffer,” continued the man calling himself Liam Dunne. “Since you’re the ranking officer here, I’d prefer to take you alive for interrogation. So when I join you, if she isn’t hurt, I’ll bring you in and make sure my people treat you well.”

Several seconds passed.

“On the other hand,” continued the major, “if she’s hurt or dead when I arrive, I promise to torture you the way you planned to torture *her*. Until you *beg* me for death. And even after you do, I won’t stop.”

Yang recoiled in horror, certain this wasn’t an idle threat.

“Given I’m calling your bluff, Colonel,” continued the American, “I’d argue that killing her now gains you nothing. So leave her alone. That way, if your men get lucky and kill me, you can still interrogate her. But if they *fail* to stop me, you get treated well instead of being tortured to death.”

The man paused to let Yang digest his words. “I can’t stop you from hurting her,” he continued finally. “But I *can* guarantee this: if you do, you’ll spend the last five or six hours of your life in more agony than you can possibly imagine.”

Liam peered around the skeletonized truck at the headquarters building off in the distance and braced himself for the next few minutes of action. A few minutes should be all the time he needed.

“One,” he said to his AI, “confirm you still have access to MidAmerican Energy’s power grid.”

It was good form to get confirmation, but he’d be astonished if anything

had changed. MidAmerican, which supplied power to millions of customers in Iowa, had been child's play for his AI to hack.

"Yes, confirming I still have access," replied One.

"Will you still be able to stop the base's backup generators from activating automatically during a power outage?"

"Yes, but not for long. Maybe ninety seconds."

"Understood. On my signal, kill all power to this site."

Liam glanced at the banks of floodlights overhead. It was time for this arena to go dark.

He closed his eyes and had One activate the night-vision feature of his contact lenses. He then assumed a sprinter's stance, preparing to race from behind the armored truck to the target building as quickly as his genetically enhanced fast-twitch muscles would allow.

"Now!" he ordered his AI.

Darkness instantly reclaimed the night, and Liam bolted over the ground at a world-record pace. He detected the infrared signatures of three of Yang's men guarding the entrance as he ran, but they were now blind and helpless, and he changed up his approach just long enough to hit each with a dart to the neck before they even knew he was there.

He had purposely waited to extinguish the lights until hand-to-hand engagement was imminent. Any earlier, and the hostiles would be prepared. As it was, he was able to race through the building and tranq the seven remaining soldiers while they were completely helpless, long before they could feel around in cavernous darkness for a flashlight or other source of illumination.

It had been even easier than he anticipated. He was a sighted man in the kingdom of the blind who happened to possess blazing speed. It was hardly a fair fight, but he had never intended to play by Queensberry Rules.

A few of the hostiles managed to fire their submachine guns blindly into the darkness before he managed to take them out, but he was careful, and the result was preordained.

As Liam neared to within feet of the command center and Yang Yi, using the building specs One had provided, the backup generators came on, and he quickly deactivated the night-vision feature of his lenses.

“That was faster than I expected,” he noted, using telepathy so he didn’t give away his position.

“Sorry, but the base AI has finally expelled me entirely. I held out for as long as I could.”

Liam grinned. The timing had been perfect. The automated sentries were designed to repel attackers, but wouldn’t operate within friendly buildings. And wouldn’t impede those who were *exiting* the facility.

“You did great,” broadcast Liam telepathically, having now arrived at his destination. *“So let’s finish this and get the hell out of here.”*

Yang Yi gasped as the room became so dark he couldn’t see his own hand. Where were the backup generators? How was the American continuing to thwart the will of the base’s AI? This operative had rendered Yang more helpless than he would have believed possible, and had done so *effortlessly*.

Yang heard sporadic machine-gun fire within the building but was under no illusion that his men would be able to stop the American.

He slowly backed against the far wall, awaiting the inevitable.

Suddenly, the lights came on again and Yang squinted as his eyes adjusted. Just as they did, the door burst open and the American entered. He was over six feet tall and covered head to toe in what must have been body

armor, including something that looked like a ski mask covering most of his face.

He removed the ski mask to reveal handsome, clean-cut features, with piercing blue eyes and a head full of black hair.

“Have a seat, Colonel,” said the American, and before Yang could respond the crack of a single gunshot echoed inside the room, and Yang felt a searing pain in his upper thigh. He crashed back against the wall and slid down it into a heap on the floor. Blood began soaking his pants as he closed his eyes and waited for the end.

But no second shot followed. Instead, the American holstered his gun and strolled toward Yang, stopping beside Brianna Cutter as he approached, but never taking his eyes from the Chinese colonel.

“Are you hurt?” said Dunne softly to the hostage. She was still held firmly in place by a long zip-tie ringing her waist and the chair, and her arms were still pinned behind her back.

“No. He didn’t touch me.”

“Thank God,” said the American, blowing out a relieved breath. “Hold tight for just a minute longer and I’ll cut you loose. I need to finish up with the colonel first.”

“Understood,” said Brianna.

“You heard her,” rasped Yang as the American approached him. “She’s unhurt. So why *shoot* me?” he demanded. “You promised I’d be treated well.”

“And you *have* been,” said the EHO agent. “I could have put a bullet precisely between your eyes or shot out your kneecaps. Which is what you deserve. Instead, I shot you in the thigh, and made sure the bullet went through without hitting anything important.”

He paused. “You’re welcome.”

The colonel glared at him but didn't reply.

"Here's the thing," continued the black-clad operative. "I've changed my mind. I've decided to torture you for information myself. So here's what's going to happen. I'm going to shoot you with a tranquilizer dart. It'll make you woozy and disoriented for about ten seconds, but then you'll be out cold.

"But don't worry," he continued, "I'll make sure you don't bleed out from your gunshot wound. When you awaken, you'll be strapped to an operating table. And I'll be standing over you with a scalpel and a small blowtorch, looking for information."

Yang opened his mouth to object when he felt the sharp sting of a small dart stabbing into his neck. He felt woozy, as promised, and would have slid to the ground had he not been there already. His vision began to blur.

A machine-gun staccato burst filled the room, and the wall over Yang's head exploded into shrapnel as dozens of bullets from the extended spray slammed into it. At the same instant the American crashed to the floor like a felled tree.

The colonel's blurry eyes widened and he gasped in relief. The plan had worked just like Brianna Cutter had said it would! *Incredible*.

She had staged the room so that Dunne would have to turn his back on her to confront Yang. And why wouldn't he turn his back? She was no threat to him. She was an attractive woman—an *ally*—he had just rescued, one who appeared to have her arms tied behind her.

But her arms *weren't* tied. Instead, she had been hiding a small automatic pistol Yang had given her, waiting for just the right moment to stab her rescuer in the back. Or, more accurately, shoot him in the back of the head.

The Chinese colonel fought to remain conscious, but the drug would not be denied, and he finally fell into the dark abyss.

6

Colonel Yang Yi's eyes opened slowly and his befuddled mind came back on line. He felt immensely lucky to be alive, but he needed to turn his full attention to the present and get his bearings.

He was on his back, lying on an uncomfortable bed in a small, poorly lit room, covered by a sheet and blanket from neck to toe. A landline phone sat on a cheap nightstand beside him, and one of its buttons was labeled *front desk*, indicating he was in a hotel.

A cheap, dingy one from the look of it.

He had been stripped naked and cleaned up, and a white bandage was now around his thigh, which throbbed in pain.

"It's about time," said Brianna Cutter impatiently, rising from a weathered wooden desk chair. "I thought you'd never wake up."

"Where are we? And how did we get here?"

She tossed him a brand-new pair of light cotton pants and a pullover shirt. "Before I answer any questions," she said, "put these pants on—*under the sheets*. If I have to see you naked again I might just be sick," she added in amusement, putting on an exaggerated expression of horror.

He carefully did as she requested, making sure not to aggravate his injury, and then slid the shirt over his head. He sat up while Brianna handed him a bottle of water and several candy bars. "You'll want to regain your strength," she said.

"Thanks," he replied, taking a long swig of water. "And thanks for what you did back in the command center."

"You're welcome. Just make sure you don't forget it."

"I won't. But don't pretend you did it just for me. You wanted me to

owe you. More importantly, you did it to save your own skin. You couldn't risk being discovered as a traitor."

"What are you talking about? You were the one who told that operative—Liam Dunne—that I was a hostage. Kidnapped against my will."

"I did. But if Dunne prevailed, you couldn't know what he'd get out of me during his interrogation. Even if I kept quiet about you, he'd have quickly discovered that you traveled to our base of your own free will. Either way, he'd soon see you for who you really are."

Brianna tried to look stunned. "Wow, that never occurred to me."

Yang snorted. "Yeah, sure it didn't."

"So do you want to know how we got here, or not?" she said, changing the subject with ill-concealed bad grace.

"By all means."

"Good. Because it wasn't easy, I can tell you that. You didn't sever the zip-tie around my waist quite enough. It took everything I had to finally break it and free myself. Then I had to find a first-aid kit with a can of spray-foam stitches and spray your wound closed. Then I had to find a way to transport your pathetic carcass out of there."

"How did you do that?"

"I pulled you onto an office chair and rolled you to an exit. Since everyone was dead, I had my choice of cars—and wallets. But your clothing was so bloody, I thought it best if I hid you in the trunk. You're light for a man, but super unwieldy, and it was a giant pain in the ass to lift you up and cram you inside. I should get a fricking merit badge for all this."

"At least you weren't crammed into the trunk of a car."

"You were out cold. So it's not like you suffered."

Yang nodded. "You did well," he acknowledged. "So where are we now?"

“In Lincoln, Nebraska, at the Cornhusker Motor Lodge. Fantastically crappy, don’t you think? I had to find a one-level motel where I could park right in front of my room. That way I could drag your unwieldy body as efficiently, and stealthily, as possible. Then, worst of all, I had to clean and dress your wound, which required me to strip you naked.”

She pretended to shudder. “Something that will haunt me for the rest of my life.”

“I’m glad you’re having so much fun at my expense.”

“Yeah, me too,” said Brianna with a smile.

“Did you finish off the American agent before you left the command center?”

“I’m not sure what you mean.”

“I mean, did you plant a few rounds between his eyes, just to be sure?”

Brianna looked confused. “No need. He was dead. And I had to get the two of us the hell out of there. If he were alive, he would have *stopped* me.”

Yang frowned. “You might have just nicked his neck, put him out for a few minutes. These guys have half of their blood replaced with artificial cells, which carry far more oxygen and allow them to heal at many times the rate of normal men. You should have made sure.”

“*Really?* My plan saves your ass and I’m getting criticized. I didn’t see *you* putting a few bullets between his eyes, either. So don’t look a gift horse in the mouth. You’re alive, aren’t you?”

“You’re right,” said Yang begrudgingly. “I shouldn’t criticize. But given he killed all of my comrades, you can hardly blame me for wanting to be sure he’s dead.”

“Don’t worry, he *is*. A frail woman brought down the ultimate warrior. *After* more than seventy commandos had failed. Ironic, isn’t it?”

The colonel sighed. “Not really, no. Women have often been the

downfall of powerful men. I'm just glad you thought to play that card."

"How could I not? It's one I take advantage of on a routine basis."

Yang finished the bottle of water and tore open a caramel candy bar as Brianna looked on.

"As fun as this has been," she said while he chewed his first bite, "I'm afraid I need to go. I'm sure you'll figure out how to contact your people for exfiltration back to Beijing. Just remember I saved your life. After trying to save your base and your people. Repeatedly. Tell General Ren I'm worth my weight in thousand-dollar bills and convince him I can be the single most valuable asset China has ever had. Which is true."

Yang shook his head. "What makes you think I'll have any influence *now*? I'll return home in disgrace. I was the commanding officer of a high-profile base destroyed under my watch. By a single agent. And I only survived because of a plan that *you* hatched up."

Brianna eyed him in disbelief. "Wow. You're a high-ranking Chinese intelligence operative and you have *this little* imagination? It's hard to believe China is kicking our asses so badly. Give yourself some poetic license, Colonel."

She tilted her head in thought. "How about this version. *Eight* EHO agents attacked your compound, not one. Worse, they didn't just prevent your automated armaments from working, they managed to turn them *against* you. Surely you can't be held responsible for a flaw in your security-AI the Americans were able to exploit. I assume you didn't program it *yourself*. In fact, I'm guessing your AI was standard issue."

There was a long silence. "Go on," said Yang.

The hint of a smile crossed Brianna Cutter's face. "Still, despite the failure of the AI your superiors supplied you with, and facing a huge contingent of EHO agents—at least by their standards—you fought valiantly.

You hid, dug in, and destroyed your own computers and AI before the hostiles could use them to inflict further damage.”

She paused in thought.

“You were shot,” she continued finally, “but you managed to crawl back into the command center. From there, you orchestrated a daring and brilliant counterattack. You can work out the details of this fictional attack in your own time. The gist would be that your heroic forces managed to kill all but one of the EHO agents, although, tragically, your men died in the process.

“With your men gone, and completely out of options, you still managed to come up with the ingenious plan of using me against the last attacker. *You* came up with the plan, not me. You guessed I was greedy and power-hungry enough to do whatever it took to get in your good graces—which turned out to be true—and you managed to convince me to do it. I shot the EHO agent, just as you had mapped out. But before he died, you managed to get critical intel out of him.”

Yang thought about this for several long seconds. “Not bad,” he said. “And none of it can be disproved. Well, except for the last part. I can’t claim to have intel that I don’t have.”

“Then it’s a good thing *I* do,” said Brianna. “And I can share it with you. Once EHO figured out you were building a base in Iowa, they got further intel on it from one of your own people. A high-level Chinese intelligence operative whom they’ve turned. You aren’t the only ones who have traitors in your ranks. Trust me, when your people investigate the name I give you, it will check out.”

“Why would you do that for me?”

“Not for you,” corrected Brianna, “for *us*. I’ll provide the intel, but only if you promise to do everything in your power to get me the deal I outlined in your command center.”

Yang considered. “If I’m remembering right, you wanted three things. Enormous sums of money. Help climbing up the career ladder at the NSA and beyond. And to work for General Ren, himself.”

“Good memory,” said Brianna. “That’s exactly right. I help you, and you help me. This way, *you* won’t be blamed for the loss of the base—the mole will be. You’ll be seen as a *hero* for preventing the attackers from getting useful intel and weeding out a high-level traitor. Hell, you might even get a *promotion*.”

Her lips curled up into the hint of a smile. “To be honest, the fact you were shot works to your advantage. Makes you look even *more* heroic. And don’t forget, I warned Ren about the attack in plenty of time to act. *He* made the call not to evacuate. He’ll have every incentive to go along with your version of events so this mess doesn’t boomerang back on him.”

“You do have a talent for framing things to your advantage,” admitted Yang.

“Just one of many talents,” said Brianna. She leaned toward him with a hopeful look on her face. “So what do you say, Colonel? Do we have a deal?”

Yang considered. This woman might be next-level ruthless—but she was also immensely talented, even if she did say so herself. She had killed the man who had come to her rescue. The story she had invented on the fly was creative and imaginative enough to make the best fiction writers jealous. And she made Machiavelli look like a nun.

She was also correct in her analysis—yet again. He could either be honest, come home in disgrace, and suffer the consequences. Or he could go along with her plan, and possibly earn a *promotion*.

The decision was easy. Not just because it would help him, but he was convinced it would actually help his beloved country as well. Brianna Cutter could be hugely important to China’s cause. She was brilliant, treacherous,

and bold—which were the exact traits they needed in a spy. She had boasted she'd be the most valuable asset China ever had, and judging from everything he had witnessed, she could well be *right*.

“Okay,” he said finally. “Give me the intel you have on this traitor in our ranks, and help me polish my tale so it’s foolproof, and we have a deal. I’ll do everything I can to get General Ren to turn you into an asset under the terms you’ve outlined.”

He sighed. “To be honest, after everything I’ve seen, I want you to work for us as much as *you* do.”

“*Finally*,” said Brianna Cutter. “Someone in China showing good judgment.”

She smiled. “This is going to be the beginning of a beautiful relationship.”

PART 2

Delta flight 27A touched down in San Diego at ten a.m. local time after a five-hour journey from Lincoln, Nebraska, and Brianna Cutter made her way through the bustling airport wheeling a sizable carry-on bag. She glanced at the many discreetly located surveillance cameras throughout the terminal out of habit, even though her face wouldn't register on any of them.

This had been true for some time, but it was especially important now. It wouldn't do for the Chinese to be able to use facial recognition to track her movements, although she doubted they'd try to do so, or reach out to her, until Yang had been fully debriefed back in Beijing. Since he was still arranging for exfiltration, she'd likely have at least a day or two.

When General Ren Hong did make contact, he wouldn't be surprised she was clever enough to counter their efforts to track her. If she wasn't, she wouldn't be much use to him.

Brianna finally stepped outside into glorious sunshine and breathed deeply of the fresh, low-humidity Southern California air. It was a perfect April day in paradise, already seventy degrees and sunny, with visibility of forever.

From a seedy hotel in the heartland to majestic palm trees in Southern California. Not a bad trade.

She made her way to the third floor of a covered parking garage and walked to a white Mercedes four-door sedan parked in spot 3817. A tall man waiting in the driver's seat saw her coming and exited the vehicle. After a quick glance around to be sure they were alone, they melted into each other's arms and shared a passionate kiss.

“How was the flight?” asked Liam Dunne cheerfully when they separated. He had told her where he had parked, telepathically, using their respective implants, but he always preferred to keep these communications to a minimum when he was seconds away from seeing her in person.

“The flight was great,” she replied with a twinkle in her eye. “I slept like a baby.”

“Like a baby?” he said in mock disbelief. “Does that mean you woke up every two hours screaming at the top of your lungs?”

Brianna laughed. “Now that you mention it,” she amended, “I probably slept *better* than a baby.”

She deposited her luggage in the trunk, and they both strapped into the front seat of the white Mercedes, with Liam taking the wheel, ready to begin a well-earned seven-day vacation together—which would likely suffer a brief interruption when she was contacted by General Ren.

“We’ll be at the villa in no time,” he said as the car began moving.

Phil Thomison hadn’t been shy about tapping his black budget to the tune of four thousand dollars a day to rent them a secluded house on Coronado Island, just a fifteen-minute drive from the airport. After traversing a towering, two-mile-long bridge that spanned the San Diego Bay, they’d be on the island. Then, a short drive later, they’d arrive at their destination, which happened to be just a few miles away from Naval Amphibious Base Coronado, where Navy SEALs were stationed and new ones forged.

“You’re going to love the place,” continued Liam as they left the airport grounds. “It’s small, but really nice, and right on the beach. I can’t wait to see you in a bikini.”

He raised his eyebrows. “Better yet, I can’t wait to see you *without* a bikini.”

“About that,” she said in amusement. “Turns out I had to see Yang Yi

naked. So I might not be in the mood for the rest of my *life*.”

“Wow, *that* had to be traumatic.”

“I know, right?” she said, shooting him an incandescent smile. “At least I got to tease him about it repeatedly. I don’t think he has the same sense of humor that we do.”

“Wait a minute,” said Liam. “Why did you need to see him naked?”

“After you dragged him into the motor lodge and left us, I decided I should probably get him some fresh clothing and clean him up. It was the least I could do. You know, after you *shot him* and all.”

“Are you really trying to pretend you didn’t *tell me* to shoot him?” said Liam in amusement.

She laughed. “Trust me, it was a good call. Turns him into more of a hero and makes him more grateful I got him out of there.”

Brianna caught Liam’s eye while he was driving and nodded appreciatively. “By the way, I forgot to mention it earlier, but speaking of making him more grateful he was rescued, your routine was perfect.”

“What routine?”

“You know, when you were about to tranq him. You told him that after he woke up, you’d be standing over him with a scalpel and a *blowtorch*. It was all I could do not to break out laughing. Truly inspired stuff.”

“Thanks, Bri. I have to admit, I liked the blowtorch part myself.”

They pulled up to a red light and stopped. “Since we’re on the topic,” said Brianna, “and since I’ve already updated Phil, why don’t we get the debrief out of the way now.”

“It’s like you can read my mind,” said Liam.

She had notified him just after leaving Yang behind that everything had gone well, but he had wanted to wait until they were together to get the details. He preferred face-to-face conversations if he could help it, using

spoken words rather than telepathy, or even AI-assisted holographic video calls.

Sometimes the old ways were the best.

Brianna's own implanted AI, which she had named *Jess*, had transmitted a recording of everything she had seen and heard during the entire op to One, but Liam wasn't about to have his AI play any of it back. Better to hear it from Brianna's own spectacular lips.

She had been preparing for just over a year to pass herself off as a traitor, in the hope of eventually infiltrating the highest levels of Chinese intelligence. She had been a captain in the army working at the NSA as an analyst when Thomison had recruited her many years earlier. Given this background, it was fairly straightforward for the general to get her positioned as second-in-command of NSA's China Desk and create a credible backstory to cement the legitimacy of her appointment.

Then it was only a matter of leveraging her position to learn all she could about China, continuing to establish her bona fides, and being opportunistic. Patience wasn't her strong suit, but she bided her time until she was convinced she could offer up just the right intel, at just the right moment.

The Iowa base fit the bill perfectly. She and Liam had been in a romantic relationship for over fourteen months, and for the last nine, he had been working with her to find the perfect piece of intel she could gift to the Chinese to begin courting them in style.

Both agreed Liam's intelligence coup was as good as it got, a perfect demonstration of the value she could bring them. She wasted little time before reaching out to Ren Hong to entice him to make her a key asset, but it hadn't gone as planned. Ren wasn't ready to trust her, and wasn't even all that worried to learn the Iowa base had been discovered. It had been maddening.

Still, ever the optimist, Brianna became convinced Ren's failure to act on her intel was a blessing in disguise. If played right, it would give her a chance to prove her trustworthiness and usefulness as profoundly as China could ever want. She could get into Ren's good graces immediately, rather than needing to take baby steps for months or years to come.

So the Iowa op was born, Brianna's brainchild, requiring unprecedented boldness. She would show up at the entrance to the farm, unannounced, and ask for Yang Yi. While she was there, Liam would attack the base, and she would ultimately bring Liam down, saving the day. It was as audacious as any plan in EHO's history—which was saying *a lot*.

It was also worth the risk. While there were many ways it could go horribly wrong, if they did manage to pull it off, Brianna's many talents would be on full display. Beijing would see her willingness to go to extraordinary lengths to save their base and prevent a massacre. To do *anything*, including killing an elite American operative, to serve her own self-interests. Which, as she had repeatedly pointed out to them, involved working for the winning team.

The op had gone as well as she and Liam could have possibly hoped. They hadn't expected Yang to bring her to a signal dead-zone, disrupting their ability to communicate, but they hadn't let that slow them down. They had worked together on several previous ops and were romantically entangled to boot, so they could anticipate each other's moves. And when Liam finally breached the command center, they could once again communicate, allowing her to guide him telepathically—through Jess and One—for maximum effect.

If the op had gone to hell, Brianna could have wreaked all kinds of havoc inside the Iowa site's command center, increasing Liam's odds of survival considerably. She was one of only seven female EHO agents in a group of

thirty-seven, and exceedingly lethal in her own right.

She and Liam had begun teaming up on ops fifteen months earlier, and it wasn't long before they couldn't keep their hands off each other. They had everything in common, including a shared love of *Star Trek*, a franchise Brianna had loved since she was eight, and Liam had found after Phil Thomison had played a snippet of a movie for him in a hospital.

Just as importantly, they experienced the camaraderie and closeness Liam had felt with all of his brothers-in-arms, but with a sexual intimacy component added in. Their feelings for one another, the joy they felt in each other's presence, only intensified as they found ways to spend more and more time together.

In fact, just two weeks earlier both had confessed their mutual love, changing the dynamic of their relationship further.

Liam kept his eye on the road as they drove over the elegant, towering Coronado bridge, but listened intently as Brianna recounted the gist of her most recent conversation with Yang. She was delighted by how it had gone.

"Congratulations, Bri," he said when she had finished. "A brilliantly conceived op from start to finish."

She beamed. "It really was pretty special. And most of that has to do with *you*. You chose just the right delayed-action tranquilizer for the job. The timing was flawless. Yang was just conscious enough to see me shoot in your direction, but too blurry-eyed to realize I had missed."

"What did you think of my dive? I've never pretended I was shot in the back of the head before."

"*Really?* You couldn't tell."

He grinned. "Thanks for the sarcasm. I'm sensing you don't think I should quit EHO to pursue an acting career."

"Maybe not," she replied, returning his smile. "And just for the sake of

full disclosure,” she added, serious once again, “Yang isn’t entirely convinced you’re dead.”

“I thought you said he bought it.”

“He did. In the sense that he has no idea we played him. He still thinks I’m a full-on psychopath who would gun down my rescuer without blinking. And speaking of that, I really did enjoy playing the villain. There’s nothing quite like it.”

“It’s the little pleasures in life,” said Liam with a wry smile. “Pretending to be a psychopathic traitor. Pretending to get shot in the head. Priceless.”

He paused and his smile vanished. “But let me get back to Yang. If he believes you shot me, why isn’t he convinced I’m dead?”

“He worries there’s a small chance you were only clipped and might ultimately survive. He thinks EHO agents are so miraculous, we might just be able to take a few headshots and still survive. He was annoyed with me for not planting two between your eyes once you were down. Just to be sure.”

“Well, he does have a point.”

“Here’s the part I was saving up. Which I know you’ll appreciate. When he asked me if I was certain you were dead, do you know what I wanted to tell him? The first thing that popped into my head? I wanted to tell him I was *positive* you were dead. That you were . . . *Dunne* and dusted. In fact, he could stick a fork in you . . . because you were *Dunne*.”

Liam broke into laughter. “I am so sorry, Bri. It’s clear I’ve been a horrible influence. But it’s also clear why I’ve fallen so hard for you.”

“Really, Liam? It wasn’t the shared values? The deep philosophical connection? Or even the epic sex?”

“Sorry, Bri. It was the bad puns all along.”

8

Liam Dunne gazed in admiration at his partner, who was semi-reclined on a lounge chair beside his, reading a novel on a small tablet computer. In just over an hour, the sun would set over an ocean whose waters had crept to within a few feet of them, and the temperature would drop.

As it was, Santa Ana desert winds had brought unseasonable warmth to the region, and they had enjoyed the hell out of a rare eighty-five-degree day in April, walking around the area, lunching at an outdoor cafe, and body surfing in the bracing waters only twenty yards of soft, white sand beach away from their back door.

Even so, Liam had been more preoccupied than he let on. A part of him was panicking. He had committed the cardinal sin of telling Brianna he loved her. Worse, he had *allowed* himself to love her in the first place. Allowed himself to find true happiness.

Which meant something was about to go horribly wrong.

Just after they had faked his death, when they were driving to Nebraska with Yang in the trunk, they had been giddy, and he had broached the subject of marriage. They had discussed it for hours. She was as receptive to the idea as he had hoped, and they even discussed the possibility of starting a family together. They wouldn't even need to wait until she finished her current assignment in three to four years. She could tell Ren and any other Chinese handlers she was starting a family to give herself even better cover. Who would suspect a new mother was spying for China?

Then, four or five years down the road, he and Brianna would remove themselves from the line of fire, becoming instructors or analysts so as not to

orphan their children, and live happily ever after. At least that was the dream.

Even as the discussion was proceeding, Liam realized it was one he shouldn't be having, but he'd been unable to stop himself. It was a mistake. He was putting the cart before the horse, and he would soon pay the price. Because there was a big problem with having this otherwise glorious conversation right then. If they did marry, Brianna Cutter would be his *second* wife, not his first.

A minor detail he had failed to tell her. An oversight she was sure not to appreciate.

There was no shame in having been married. It was just that he and his ex-wife—Kimberly Reynolds—had kept their marriage a secret from everyone except Phil Thomison, and it was an awkward episode to disclose to Bri. Especially since he'd have to tell her how his loving wife hadn't been as loving as he thought. How she had left him out of the blue one day and didn't look back—just when he thought their relationship had never been stronger. That she refused to even stay in touch with him, except for one video call she had reluctantly agreed to take each year on their wedding anniversary.

Which, as horrendously bad luck would have it, was today. The fates, he feared, were screwing with him yet again, desperately trying to balance the scales.

He and Brianna had timed everything on the Iowa op to perfection, and it had been a smashing success. So Liam wasn't surprised the fates had made sure the timing of what he had to do now, of the disclosures he would finally have to make, was as *imperfect* as possible. On the first day of a much-needed vacation, and just after discussing their future.

Although fate hadn't forced him to broach the subject of marriage when he had. That had been sheer stupidity on his part. He had fumbled the ball without even being hit.

Bri would be rightfully miffed that he had talked about their future without bothering to share such an important and relevant part of his life with her. Not just the marriage, but how it had ended. They kept secrets for a living, but not from each other. Once this came out, he couldn't blame her for wondering what other secrets he was keeping.

He had intended to tell her long ago—as Phil Thomison had frequently advised him to do—but had continued to find excuses to put it off.

But there was no putting it off any longer.

Liam's scars ran deep. The happier he was, the more fulfilled, the more convinced he became that the universe was about to pull the rug out from under him yet again. Whenever his life was going its very best, that was when disaster would strike. When he had been a star quarterback and had lost his throwing arm and mother in quick succession. When he and Kim had been as happy as they'd ever been—at least he *thought*—and his marriage had come crashing down in the blink of an eye.

As his happiness had grown, so, too, had his certainty that the other shoe was about to drop. And not really a shoe, but a bladed boot hanging over his jugular.

He blew out a long breath, rose from the reclined lounge, and pulled a shirt over his sculpted torso. He leaned down and kissed Brianna gently on the lips. "I have to go inside for a little while," he said. "Probably not more than thirty minutes. Why don't you stay here. I'll be back in plenty of time to watch the sunset."

"Sure. But what's up? Anything important?"

He almost winced, stopping himself just in time. "I just need to make a vid-call. Which I'm about to be late for. I'll tell you all about it over dinner."

Her eyes narrowed. "Is this something I should be worried about?"

"No, not at all," he said, feeling like an ass. "I'll be back before you miss

me.”

9

Liam sat in a small study in their rental home and gazed at the face of Kimberly Reynolds, centered on the screen of a laptop computer he had placed on the desk. He could have had One project her as a 3D hologram, large as life in front of his lenses, or had the laptop project her into the room, but that would have been more intimate than he wanted to get.

Besides, the holographic technology had been developed by Oliver Scott Technologies, so using it on this particular call would have left a bitter taste in his mouth.

“Hi, Liam,” began his ex-wife softly. “It’s good to see you.”

He felt a nagging sense of sadness and loss upon hearing her voice. He had been so in love with her. But he had finally gotten her out of his system, finally made peace with her leaving him so abruptly, and finally allowed himself to love again. This would be their last call. He would inform his ex that he was done forcing her to stay in touch, spill the beans to Bri about his past, and never look back.

The way Kimberly had never looked back.

His ex-wife’s blonde hair framed her delicate face, and she was every bit as attractive as she’d always been. She wasn’t *quite* the beauty Brianna was, but looks hadn’t been the reason he had fallen for either of them. He was attracted to a brilliant mind, an outgoing, engaging personality, and above all, a strong sense of humor. Kim hadn’t aged outwardly, but her face seemed older somehow, as if she was more world-weary.

“It’s good to see you, too,” he replied finally.

“How have you been faring?”

“I’m well, Kim. How about you? I assume you’re still in Oliver’s cult.”

She sighed. “Not a cult. But, yes, I’m still where I was. And as I’ve told you on our previous two calls, I’m never coming back. I wish I could give you hope, but that would be even crueler than what I’ve already done to you.”

“That’s okay, Kim. I still wish you’d let me help you escape from your gilded cage. But I no longer want you to leave so you can return to me. I’ve actually fallen in love again. With a woman I work with. We’ve become as close as you and I once were.”

There was a long pause. “I am so happy for you, Liam,” she said, but there was a hint of sadness in her voice. A hint of regret. “It couldn’t have happened to a better guy. She’s a very lucky woman.”

“As lucky as *you* were?” he couldn’t help but reply.

“We’ve been over this, Liam. I know I hurt you. And while I doubt you’ll believe this, I’ve never stopped loving you.”

He remained silent.

“A woman from work,” she continued. “I’ll be damned. Just like I was. You really are an HR department’s worst nightmare, aren’t you?”

Liam laughed despite himself. He still cared about Kimberly Reynolds more than he wanted to admit. “Yes. So it’s lucky for me we don’t have an HR department.”

Kim grinned. “I’m sure she’s extraordinary.”

“She is. *Very*. But let’s not talk about her. How is *your* work going?”

“Really well. I only wish our marriage didn’t have to be a casualty of it. I’d tell you specifics, but then I’d have to kill you.” She smiled. “Besides, it’s a bit over your head technically. No offense.”

He smiled. “None taken. If I was able to understand any of it, you wouldn’t be the genius you are.”

They chatted for a few more minutes, but the conversation was forced. He needed to pull the Band-Aid off quickly, tell her he intended to sever their connection forever, and get on with figuring out the best way to tell Bri about his sordid past.

Why did the idea of lowering the boom make him so uncomfortable? She was the one who hadn't wanted any further interaction. She was the one who had insisted on the cleanest of clean breaks, saying it would be far too painful to stay in touch. And she'd been *right*.

"Look, Kim," he said finally. "I'm glad we're having this call. But it needs to be our last one. Something I suspect will come as a relief to you."

"Not a relief at all," she said softly. "But I can't say I don't understand. I'm so sorry about how things worked out. But certain sacrifices had to be made. There's another version of reality where we're still together. Where we had the son I always wanted to give you so badly."

She smiled and shook her head. "Although I *still* can't believe you wanted to name him Eric. Who names their son after their favorite college quarterback?"

Liam's breath caught in his throat and his heart began to race. He managed to keep his face passive, but inside he was *reeling*.

She had used the word *Eric*. She'd even had the audacity to connect it to his past life. It was one of a few trigger words they had developed many years earlier for her to use if she were in trouble and under duress, or if there was reason to believe a call was being tapped.

And just so he wouldn't wonder if she had used the word accidentally, she had linked it to a tall tale about a son she had wanted to give him. The truth was she hadn't been sure she wanted children *at all*.

Her distress signal couldn't be any clearer.

Still, he had to react normally, as if she hadn't just sent a desperate plea

for help.

“A son would have been great,” he said wistfully. “But no use dwelling on the past. We are where we are. Still, it goes without saying that if you ever need me for any reason, I’m always here for you.”

“Thank you, Liam. I really appreciate that. But before we sign off for the last time, there’s something I’ve been curious about for a long while. How is Amoreena Berg’s research progressing? When I last worked with her, she boasted she was well on her way to revolutionizing data compression and decompression. She figured she’d be flying to Oslo to accept her Nobel Prize about now. Have you kept up with her work?”

“I can’t say I have,” he replied, his mind racing to understand the significance of these words.

“Well, if you ever run into her, say hello for me. And tell her not to abandon any approaches too soon. She had some wild ideas, but I think she might have been on to something.”

“I’ll tell her.”

“Thanks, Liam. While you’re at it, tell her not to get too big of a head. Also, don’t tell any members of my old team I offered encouragement to her. You can never trust anyone’s reactions to anything. They might think I’m playing favorites. So keep it on the down-low.”

“You got it.”

There was a long, awkward silence. “Well, then,” she said finally, “I guess we shouldn’t prolong this any further. I still love you. You’re still the most extraordinary man I’ve ever known. I believe in you, and I know you’ll accomplish anything you set your mind to.”

“Thanks, Kim. You’re pretty extraordinary yourself. I wish it had gone another way. I just hope you’re happy.”

“Sometimes happiness has to take a backseat. In any case, we had one

hell of a ride together. But I guess this is really it. The last time we communicate in this lifetime. I guess I'll see you in the next."

"Good luck to you, Kim," he replied as their connection ended.

Liam stared at the blank screen for several long seconds in disbelief. She was in big trouble. He needed to know where she was, but the call was untraceable. She had always made sure of that. Still, if she wanted out, he had to help her—if he could manage to find her.

A chill ran down his spine from out of *nowhere*. Where had *that* come from?

It was as if his subconscious mind was filled with dread. A dread so great it had spilled over to his spine. As if his subconscious had discovered something horrific his conscious mind had yet to fathom. Which was ridiculous. He knew exactly why he should feel dread. Kim was in grave danger, and he had no idea where to even begin to help her.

But something in his gut told him that wasn't it. Something else was wrong. Very wrong. Something was *missing*. Like the ever-present hum of an electric car a driver didn't even realize was there until it abruptly disappeared.

He gasped as he finally pinpointed the source of his dread, the source of the absence.

It was in his head.

"*One!*" he thought frantically. "*One. Are you there?*"

There was a deathly silence in his mind.

"*One, I order you to confirm your presence immediately.*"

Nothing. One was *gone*. The AI had ceased to exist, along with a mental hum Liam's conscious mind hadn't even known was there.

He gasped. He had become so used to his internal assistant it was as if an appendage had been removed, as if he had lost a limb. And, in a weird way, a

friend.

But One's absence was *impossible*. It could not be erased from the optical supercomputer in his head. Could. Not. Be.

The AI was integral to its design. His ex-wife had designed it herself, and her genius was next-level. She was the world's leading expert in both optical computing and AI systems. The implant she had perfected for EHO was a *masterpiece. Unparalleled*. She, herself, had explained to him why the AI could never be erased or supplanted.

Liam's eyes widened in horror. Not unless the creator of the technology had destroyed the AI *herself*.

Liam felt like vomiting. Of course she had. Only she *could* have. And it couldn't be a coincidence it had happened when it did, during the one brief period in the entire year they were in communication with each other over a wireless network.

Liam frantically dialed her number and let it ring, but wasn't surprised when she didn't answer.

Kimberly Reynolds had sent a distress signal and then had fried her own creation.

What did it all mean?

He swallowed hard. The only thing he knew was that everything was going to hell. And he had a bad feeling this journey had only begun.

Worse, it was Liam's own fault. He had tempted fate. He had fallen in love. He had dared to be happy.

He was just surprised it had taken the universe this long to retaliate.

10

Brianna Cutter stopped reading to gaze out at the ocean and the waning sun rapidly falling toward the horizon. She was as content as she could ever remember. What a remarkable few weeks these had been.

She couldn't believe she had found a man as perfect for her as Liam Dunne. He was exceptional, but also down-to-earth. The suffering he had endured, the setbacks, hadn't made him jaded. In fact, they had somehow done the opposite.

In addition, he was as humble as a man a third as extraordinary as he was. And while some might think he masked deep, lingering pain with a little too much humor and bravado, she found these aspects of his personality endearing.

Brianna had also suffered in her younger days, although not to the same degree he had, and almost in an opposite way. He had been ultra-popular and admired. A big man on campus from the age of ten. Later, almost a *god* on campus.

She, on the other hand, had been an awkward nerd. Too bright, too interested in geeky puzzles, *Star Trek*, and comic books to ever be popular or fit in. Worse, her father was a Marine colonel who was relocated almost every year to various bases around the country and around the world, dragging Brianna and her mother, a nurse, along with him.

This ensured that Brianna was always the new kid on the block. Just when she began to find friends, to feel at home, new orders would come in and they would leave again, often for lands whose natives spoke languages she didn't understand, making her even more of an outcast.

So she made friends at the various bases she found herself on, often with intelligence operatives and commandos. Her father initially discouraged her from entering the service, but he could tell she was happiest in this environment, and finally became her biggest supporter.

Ultimately, after she became a captain in the army, her father sought out his old friend Phil Thomison and described qualities he had seen in Brianna that, nepotism aside, convinced him she'd shine in EHO, and Phil ultimately agreed. She didn't have the physical prowess of many of the other recruits—and *no one* had the physical skills of Liam Dunne—but with the enhancements and tech added in, she was nearly as effective.

EHO was about more than personal lethality. It was about heart, mind, and guile, and about finding ways to achieve the impossible.

As for Liam, he should be in the NFL, setting records, married to a supermodel with a mansion full of kids. And while Brianna was disgusted with herself, part of her couldn't help but be glad his future had been disrupted. Had it not been, he would have never come into her life.

Selfish and horrid, absolutely, but also true.

Her thoughts were interrupted by the sound of the back door of their rental home slamming shut fifteen yards behind her. She glanced back to see Liam rushing toward her across the fine white sand with a look of panic unlike any she had seen on his face before.

What in the world could panic Liam Dunne?

"*Liam?*" she thought at him before he made it to her position, knowing Jess would relay this thought instantly through One and into his mind.

"*What's wrong?*"

But rather than a mental reply from Liam, she heard the mental voice of her AI. "*I have to report that—*"

"Not now, Jess," she interrupted out loud as Liam reached her side. She

rose from the lounge chair to face him.

“Bri, we have a big problem. One is gone.”

“One? Your AI?”

“Yes!”

“That’s *impossible*.”

“I know. But it’s also true.”

“Liam is correct, Brianna,” confirmed Jess, broadcasting audio to both EHO agents through the comms embedded in their inner ears. “When you tried to reach out to him telepathically as he approached, I couldn’t locate One. In fact, as far as I can tell, not only is One absent, but Liam’s optical supercomputer itself is completely inert and non-operational as well.”

Brianna’s eyes widened. “How can that be?”

“I don’t know,” replied Jess.

“Yeah, well I do,” said Liam. “Let’s take this inside and I’ll tell you everything I know.”

Brianna grabbed a yellow polka-dot swimsuit cover-up sitting on a towel beside her, threw it over her bikini, and followed him inside. Within seconds she was seated on a red leather sofa while Liam dropped into a red leather chair facing her.

“Okay, Liam, talk to me,” she said. “There’s no way this was just a random glitch. Too many safeguards and redundancies. Someone would have to make it happen. And there’s no one on Earth who could do *that*, either.”

Liam winced. “My ex-wife could.”

Brianna stared at him, blinking rapidly in confusion. “What did you just say?”

“I said my ex-wife could.”

“Since when do you have an ex-wife?” she demanded.

“Since three and a half years ago. Although, technically, the divorce

didn't get finalized for about a year. After she repeatedly failed to show up or respond to any of the proceedings."

"How long were you married before you were separated?"

"About two years. I'm so sorry I didn't tell you about this before. I intended to at dinner. She's who I was calling just now."

Brianna shook her head in dismay. "You've got to be kidding me."

"I wish I were. You know how much I love you, Bri. And I have zero interest in my ex. I planned to break this news more gently, with a lot of apologizing and groveling for not telling you sooner. But I don't have time for that now. We have to get our arms around this, and we have to do it in a hurry."

"Wait, wait, wait," said Brianna. "Back up. I've never seen you this frazzled. Let's take a deep breath and walk through this carefully. First, let me understand something. Just yesterday we were discussing the idea of getting married and raising a family. And it never occurred to you to tell me you'd been *married before*?"

"You did hear me mention apologizing and groveling, right? Believe me, I know how much I blew it. You have a right to be angry. And I'll try to explain why I couldn't bring myself to tell you. But something is going on. Something *big*. And we have to figure out what it is."

She sighed. "Okay. We'll table this mess—for *now*."

"Thank you. And you're right. I do need to calm down. It was just everything hit me at once. I'm usually more emotionally resilient, but this threw me."

"Yeah, no kidding," she said, but she could also understand. Making a secret call to a secret ex and then losing his AI companion would be hard for anyone to accept stoically. Brianna's smart contacts and even smarter internal assistant had become such an integral part of her life, she couldn't even

imagine how jarring it would be to lose them.

How many people were addicted to, and dependent on, their smart phones? How many would panic if this device was taken away, feeling helpless, and even *naked*, without it? And that was just a smart phone. Jess and One were exponentially more useful.

“Let me start at the beginning,” said Liam. “One of my first assignments after finally joining EHO was to protect a black site lab doing next generation work on computers. Given the global race for computer and AI supremacy, this research was critically important. It was also a prime target for our global adversaries wanting to cripple our progress.

“Phil wanted the security at the site beefed up to ridiculous levels and put me in charge. I was there to upgrade security systems, but also to protect key scientists. I had five non-EHO people reporting to me, and we often acted as personal bodyguards.”

Brianna was hanging on his every word. “Okay,” she said. “Go on.”

“Early in my tenure there the lab made a breakthrough. Optical computing mixed with an advanced AI. Next-level tech we’ve now been using for years—One and Jess. Implanted in the brains of all EHO operatives.”

Liam paused. “The leader of this scientific team, the woman running the entire show, was an unparalleled computer and software genius named Kimberly Reynolds.”

Brianna stared deeply into his eyes, as if probing his very soul. Something about the way he said her name was telling. “Is she your ex-wife?”

“That’s right,” he said, wincing.

Brianna sighed and waved her right hand. “Go on.”

“Kim and her team needed a guinea pig to help them perfect the tech. A

beta tester to work out the kinks. I volunteered. Phil wasn't happy about it, since he thought I was too valuable to risk anything going wrong.

"But I was in good hands. Kim wouldn't let anything go wrong because we were falling in love with each other. This project would allow us to spend more time together. Get to know each other at a depth never achieved by two people in history. The project would require her to monitor One, to ride along with it for many hours a day. Which meant she was—literally—in my head. It was a level of intimacy that was unprecedented."

The idea that Liam had been madly in love with someone else felt like a betrayal to Brianna, and she also found herself strangely jealous, despite her efforts to fight off these irrational emotions. He had a right to a past life, after all. But he didn't have the right to withhold this from her as long as he had.

"Got it," she said. "You survived this level of intimacy, fell even more in love, and got married."

"That's right. We kept the marriage secret from everyone but Phil, since our relationship was bad form, unprofessional. The same might be said of the two of us, but this was much worse. The first rule of being a good bodyguard is not getting intimate with the person you're guarding. I needed to focus on threats, not on alluring lingerie or wedding rings. But I was also integral to the beta testing of the proposed implant, so Phil couldn't reassign me. He wasn't happy about it, just as he's not happy about *us*, but he understood."

"So cutting to the chase, this explains your initial statement. No one on Earth could kill One—except for your ex-wife—who just happened to *create* him."

"She was beyond brilliant."

"Yeah, I get that," snapped Brianna irritably. "Probably beautiful too. But, bottom line, when you lost One, you had to know she was responsible. So what did she say when you confronted her? Did she *deny* it?"

“I didn’t confront her. I had no idea One was gone until the call ended. She must have piggybacked off the Wi-Fi signal to do it. I called her back, but no answer.”

“Can I assume you’ve already contacted Phil to have her held for questioning?”

“No. She’s out of Phil’s reach. She left the black lab, the United States, and *me*—more than three years ago.”

Brianna nodded slowly, soaking it all in. “Why?”

“I asked myself the same question for a long time. She was at a scientific conference in Hamburg, Germany. Our joint project to beta test the implants had long finished, and the final version of One and Jess and all the others had been installed. I didn’t make the trip. I stayed back to supervise yet another security upgrade, and I also knew I’d be a distraction if I came.”

He paused. “That’s when she left,” he said, looking distraught even now. “Disappeared is more like it. Right out from under an agent I had sent to protect her. The agent, Sarah Oberle, swore Kim had never been out of her sight. Later, Sarah got a recorded phone message from Kim, which she passed on to me. A message in which Kim explained that she was leaving and never coming back.”

“Kim didn’t even have the decency to tell you in person?”

Liam frowned. “No. Although she did try to explain this choice in her message. The long and short of it was that she had accepted an invitation to join the cult of Oliver Scott. To become a key member of Arcadia—one of Scott’s think tanks I’m sure you’re familiar with—and a proud citizen of Ostonia.”

Brianna shook her head in horror. “I am so sorry, Liam,” she said.

She should have guessed. It was obvious in retrospect. And it meant their situation was worse than she had thought. *Much* worse.

They took a brief break to gather two cold bottles of water from the kitchen to rehydrate after many hours in the sun while Brianna considered Liam's bombshell revelation.

Of course that's where Kimberly Reynolds had gone. Oliver Scott's think tanks were groundbreaking—and insidious. The Brit was now the most famous man who ever lived, with the possible exception of Jesus Christ.

After creating an empire valued at over a hundred billion dollars, he had decided to form his own country, buy islands around the world, and form enclaves of the most brilliant scientists on the planet to keep the game-changing inventions coming at a furious pace. Not just enclaves but cloistered monasteries, cloistered *utopias*, where his brain-trust personnel lived like kings and queens in the ultimate paradise.

But there was a catch. Once you signed up to join Ostonia, you could never leave. Like East Germany in Cold War days, the citizenry was forever trapped. No one who wasn't a citizen was admitted, and no citizens were allowed to leave. But unlike East Germany, which had been squalid and backward, Oliver Scott had created a country gilded with luxury, a nirvana that few would ever want to leave, even if allowed.

His think-tank islands were said to be Heaven on Earth. And this was fairly accurate. Like heaven, only choice individuals were admitted. Also like heaven, once admitted, there was no exit.

Oliver Scott would entice key scientists with unequaled splendor. With perfect climates, lush, tropical paradise living, unlimited leisure activities, high-end escorts of both sexes for those so inclined, personal chefs and

hairdressers, tennis courts and soccer fields, professional masseuses, horseback riding, off-roading, and anything and everything else members could possibly want.

Most importantly, he gave potential recruits assurances they'd be working with fellow geniuses, with the best equipment in the world, and with unlimited funding. They were free to work on anything they liked, without oversight or any pressure to produce something valuable, or even tangible. Scott's philosophy was that if he put enough geniuses together, they would spontaneously make so many groundbreaking advances, theoretical or otherwise, that some couldn't *help* but prove valuable.

And he had been right. He took the creative fruit of his brain trust, their steady output of world-changing tech, and converted his multibillion-dollar empire into a *multitrillion*-dollar empire—and growing.

In the early days, only scientists in their twilight years, many suffering from terminal illness, were willing to sign the contract. At that time, Scott's think tanks were little more than retirement homes for geniuses.

But for the past three or so years, the base of recruits had been expanding to younger, more vibrant, and more connected members. But even these recruits typically cut off all ties to the outside world, making Scott's brain trust seem like a cult. Members quickly severed relationships with friends and loved ones, something cults throughout the ages had pushed its members to do to cement their loyalty.

“The reason she didn't break the news to me in person,” continued Liam when they resumed, downing the last of his bottle of water, “was that she saw this as too great of an opportunity to pass up. She said she loved me so much, she was worried I'd be able to talk her out of it. She was also certain EHO wouldn't allow it. Even use force, if necessary, to prevent Ostech from getting its hands on the breakthroughs and secrets in her head.”

“She’s not wrong,” said Brianna.

Liam nodded. “Still, I didn’t trust anything in the message she left with Sarah Oberle. Kim and I had discussed Scott’s brain trust before. At that time, it wasn’t thought of as a cult the way many think of it now. Kim considered these paradise think tanks to be tempting, but couldn’t understand how anyone would be willing to sign up for a lifetime appointment.”

“So you concluded she must be doing this against her will.”

“That’s right. Which is why I set out to use EHO’s vast intelligence resources to find her and bring her back. With Phil’s full support.”

Liam frowned and shook his head. “But Scott keeps the location of most of his think tanks secret,” he continued. “And most of them aren’t actually on islands, making them even harder to locate.”

“I’m well aware,” said Brianna. “The sites are also thought to have automated defenses impressive enough to keep a veritable army at bay.”

“That’s the rumor, although it hasn’t been tested. And Arcadia is the most famous and well-hidden think tank of them all. ”

Brianna nodded. A certain mythology had been built up around Oliver Scott in recent years, and why not? He and his brain trust had revolutionized too many industries to count, including optics, manufacturing, and especially energy, where he had not only introduced batteries dozens of times better than anything previously available, he had perfected nuclear fusion.

He had even transformed entertainment. A specialized Ostech AI could convert any novel into a personal audiobook or movie, with the reader’s choice of emulated actors, bankrupting the audiobook industry instantly and forcing Hollywood perilously close to extinction as well. There were also rumors he had found a technique for the efficient creation of artificial islands.

“To be honest,” continued Liam, “Scott’s advanced tech isn’t his only advantage. His power to buy people and governments off is unprecedented. If

someone is the least bit corruptible, he can find a way to corrupt them.

“I did the math a while back. Scott is said to be worth three trillion dollars. So suppose he spent fifty million dollars a day. Every day. Three hundred and sixty-five days a year. And never made a penny more on interest or investments. Without having Jess tell you, what’s your guess as to how long his fortune would last?”

She shrugged. “I have no idea.”

“One hundred and sixty-four years.”

Brianna whistled. “Incredible.”

“Yeah. Imagine being able to spend fifty million a day for over a *hundred years* and not get close to running out.”

“That does put his wealth—and what we’re dealing with—into perspective.”

“Just one of the reasons he’s able to hide his think tanks so well. We continued searching for Kim but made little progress. Then, about a month into the search, the unexpected happened. She called *me*.”

“Did she know you were looking for her?”

“Good question. You’re wondering if she only called because she was worried I was getting close.”

“Right. Either her or those who abducted her—if that was the case.”

“I wondered the same. But she insisted she wasn’t under duress. That she had made the decision entirely of her own free will. She guessed I wasn’t letting her go without a fight, and told me to stop looking. Told me she wouldn’t be communicating with me again.”

“Were you sure it was really her?”

“Positive. She knew things no one else could possibly know. Besides, I know how she thinks, how she phrases certain things, her idiosyncrasies. It was her.”

“But she still might have had a gun pointed at her head.”

“I thought so too. But I had been her bodyguard. The moment I took the job, I gave her half a dozen code words to use if she were ever in trouble but under duress, so she couldn’t speak freely. I listened carefully for them, as you might imagine, but she didn’t use any. Finally, I had to accept the truth. That Oliver Scott had an uncanny ability to recruit.”

“So you stopped searching.”

“Yes. Phil and I were expending considerable time, effort, and resources on the hunt. Phil didn’t want to continue an all-consuming search trying to find someone who didn’t want to be found. And someone we might not be able to retrieve, even if our search was successful.”

Brianna nodded, finishing her own bottle of water with one last gulp. “So why the call today?”

“When she first reached out to me, I insisted we stay in touch. I was worried she was being brainwashed, and I wanted her to have a lifeline to her past. A way to leave if she ever came to her senses. She refused. I told her that unless we had at least one call per year, I’d never stop looking for her, even if I had to tear Ostonia to the ground.”

“So she relented.”

“That’s right. She agreed to accept one call each year, at five p.m. Pacific Standard Time, on the anniversary of our marriage.”

“And that was *today*?” said Brianna in disbelief.

“Yeah, great timing, right?” said Liam miserably. “On the first day of our vacation.”

He paused. “But here’s the thing, Bri. I told her about *you*. That we had fallen in love, and that I wasn’t going to be calling her ever again. And that’s when I got my first shocker. She used one of the old duress words, *Eric*. The name I was born with, as you well know. She worked it *and* football into the

same sentence. A distress call that was unmistakable.”

“And then she destroyed One.”

“Maybe. Maybe not. She was under duress, after all. So someone else may have killed One, and she was helpless to stop it.”

“I thought we agreed no one else could have done it.”

“You’re right. So maybe they forced her to do it. I don’t know.”

“We should review your conversation word by word,” said Brianna. “Look for hidden messages. Study her facial expressions with a fine-tooth comb.”

She winced as she saw Liam’s expression. “Right,” she added sheepishly. “Can’t do that. Because One isn’t there to play it back for us anymore. Sorry, didn’t mean to pour salt in the wound.”

“It’s okay. And in this case, her message was so unsubtle we don’t need any added scrutiny. She mentioned someone who had worked for her at the black site. A PhD named Amoreena Berg. Amoreena was a world leading expert in data compression and decompression. I wasn’t sure what Kim was trying to get across at the time, but I knew it was *something*. Of all the possible things she could say to me during the final minutes of our final call, there’s no way she’d bring up Amoreena if it wasn’t intended to be a message.”

“Well, given Dr. Berg’s expertise, it’s easy to guess what she might have been getting at.”

“Agreed,” said Liam. He paused for a moment in thought. “Jess,” he continued, calling out to Brianna’s AI, “can you hear me?”

“Loud and clear,” came a feminine voice in his ear.

“Please reach out and probe my implant further, with the aim of answering the following question: Is it possible One was replaced with a compressed data file?”

“It’s more than just possible,” replied Jess a few seconds later. “Analyzing your optical computer from that perspective makes it clear that’s exactly what happened. Every bit of your computer is now within an outer, protective shield of compression. While this compression is denser than anything I’ve ever encountered, the density inside is even greater. Beyond what I thought was even possible. It’s like a walnut shell is encompassing your entire computer, protecting data inside packed as densely as a neutron star.”

“What sort of file could be that big?” said Brianna. “Our implants can store the entire contents of the World Wide Web ten times over. It’s hard to imagine a file needing that much space—even *without* being compressed. Throw in compression with next-level density, and the amount of data is staggering.”

“While the outer layer of compression is surrounding all of the storage capacity of the optical supercomputer,” replied Jess, “it could be mostly hollow inside. It’s possible it’s only harboring a small amount of compressed data. The vault at Fort Knox encompasses four thousand square feet and is two stories high. If one were to see it, it would be easy to assume it contains a huge cache of gold. But it might just contain a single ingot.”

“Right,” said Liam. “So what Kim sent, the data inside, might be modest. But she went to extraordinary measures to protect it from prying eyes.”

“Until someone like Amoreena Berg can break it out,” added Brianna.

“That is the most likely possibility,” responded Jess. “But regardless of the size of the actual data cache, the file would need to be constructed how it is, and severely compressed, to have been transmitted so quickly and efficiently.

“Suppose you wanted to pass the Great Pyramid of Giza through a basketball net,” continued the AI, “in just a few seconds. Obviously, the only

way to do that would be to compress the entire pyramid down to the size of a basketball.”

“Which is impossible for pyramids,” noted Liam. “What about data?”

“As far as I know,” replied the AI, “that can’t be done, either. And yet it was. It’s the only way to explain what I’m sensing when I probe your supercomputer.”

“We need to call Phil in on this,” said Brianna.

Liam shook his head. “Not yet. You know he’s like a father to me. But Kim also snuck in a bit about not being able to trust anyone these days. I know I can trust Phil, but it’s possible they’re able to listen in on his communications. So until we get a better sense of what we’re up against, let’s keep this to ourselves.”

“Okay,” said Brianna, not looking convinced. “But not for long.”

“Agreed. Jess, can you locate Dr. Berg for us?”

“Yes. Dr. Amoreena Berg is stationed at an underground black site in Tucson, Arizona,” said Jess into Liam’s comm and the auditory centers of Brianna’s mind. “She was divorced almost a year ago and is currently living in a home about ten miles from the facility.”

“Does she have any personal security?” asked Liam.

“None.”

“I’m not surprised,” he said to Brianna. “She didn’t when I was there, either. She isn’t working on the kind of thing other countries would take great risks to get.”

Brianna nodded slowly. “We have the juice to get her a substantial protective detail without Phil’s authorization. I assume you think we should.”

“As soon as possible,” said Liam. “But we don’t want her to know about her protection until we talk to her in person.”

“I’ll set that in motion.”

“Thanks, Bri. Once that’s done, we can schedule a flight to Tucson tomorrow. We can have a private conversation with Dr. Berg when she gets home from work.”

“Why not fly out there now and meet with her sooner? It’s only six.”

“It would be a crime not to stay on the beach at least one night. We can relax, make love . . . *use ourselves as bait.*”

Liam smiled. “You know, the usual.”

Brianna rolled her eyes. “You think they’ll come after you?”

“Why not? I made sure the call was untraceable. But One was also supposed to be unkillable, so I’m not willing to make that bet. If they do know where I am and are worried that Kim tipped me off, maybe they’ll come for me. So let’s sleep with one eye open. Best-case scenario, they come, and we turn the tables. That way we’ll have warm bodies to interrogate, helping us get our arms around this.”

“So let me understand,” said Brianna with a twinkle in her eye. “You’re *hoping* we get attacked in our sleep. Is that what I’m hearing?”

“That’s what you’re hearing.”

“Wow,” said Brianna, “you really do know how to show a girl a good time.”

He laughed. “I do my best.”

“Okay, but we still need to discuss why you didn’t tell me you were *married*. That’s a major breach of trust at the stage I *thought* our relationship was at. So the lovemaking part of the evening won’t be happening.”

Liam winced. “Yeah, I can’t say I don’t deserve that. So instead of making love, how about I use that time to do a lot of groveling.”

“Not a bad start,” said Brianna, smiling despite herself.

“While you’re getting the protective detail in place,” said Liam, “I’ll prepare a quick dinner. Then we can begin to ready ourselves for an attack. In

case we get *lucky*.”

He grinned. “And before you say it, I’m aware that getting attacked is the *only way* I’ll be getting lucky tonight.”

A smile flashed across her face, but quickly vanished. She had flown commercial, so was currently weaponless. Fortunately, Liam had flown military. “Did you bring enough weaponry and electronics for the both of us?”

“I can’t believe you even had to ask. It’s like you don’t even know me. More than enough. Including carbyne nanomesh undergarments, which we should put on now.”

Brianna grinned. “Right. Because nothing says hot, sexy vacation better than carbyne nanomesh panties.”

“Given how badly I screwed up, I thought you might appreciate wearing something *impenetrable*.”

Captain Jeff Littlefield chugged down a longneck bottle of Carlton Draught beer, one of Australia's finest, and slammed the empty glass container on the conference room table. Fifteen minutes earlier he had put in a call to his boss, Oliver Scott, asking for an urgent vid-meet as soon as possible, and had just been informed that Scott would be ready shortly.

Littlefield gazed through the conference room windows at a wide variety of beautifully colored tropical vegetation and a pair of majestic albatrosses flying by, not extinct as many thought, and able to dominate the sky with an impressive ten-foot wingspan. Off in the distance, the endless waters of the South Pacific sparkled like an infinity of brilliant blue diamonds.

The flourishing tropical island he was on was the formal capital of Ostonia and had been named Scottville after the narcissistic god-king who had founded the country. Oliver Scott would have preferred to name it *Scotland*, but, apparently, a Celtic nation had thoughtlessly taken this name more than seven hundred years earlier.

Not that it really mattered. Scottville wasn't the true seat of power for the burgeoning new nation. It was a show capital only, a decoy. Scott would allow a smattering of outside visitors from around the world on the island, who would report Ostonia's opulence and benevolence back to the world. He would even let visitors tour a few of the famous think tanks located there.

Not many noticed these were much less think tanks than they were vast lab complexes, manned solely by experimental scientists and engineers. Magnificently appointed and well equipped, of course, but absent any truly great theoreticians.

In addition, any employee at these extensive laboratory facilities who wanted to break their iron-clad contract and leave was graciously allowed to

do so, dispelling any rumors that Ostech was less than magnanimous. Very few did leave, though, since they were paid small fortunes and treated like royalty.

The true seat of power was located on *Lumos*, an island almost three hundred miles distant in the South Pacific, where Oliver Scott resided, although this was only known to a precious few. While the world believed he lived in a mansion on the island of Scottville, and his vid-calls to the outside world were all routed through this island to cement the illusion, he hadn't left Lumos in years.

Oliver Scott's true headquarters island was just over sixty miles in circumference and entirely man-made, perfectly cloaked from human vision and all human-made sensors, and strategically located far from any shipping lanes. Miracle technology had been used both to create the artificial island and to shield it. Technology Oliver Scott had yet to share with the world.

Jeff Littlefield frowned, impatient and anxious both, and pulled another cold bottle of Carlton Draught from a refrigerator in the corner of the conference room, popping it open. The captain headed security for the entire Ostech empire—now the nation of Ostonia—commanding a literal army of mercenaries, and was able to put weaponry and gadgetry into play that would turn most countries green with envy.

Ironically, while Jeff Littlefield was in charge of protecting Scott's entire empire, Oliver Scott saw to his personal protection on his own. Which was unfortunate, because the captain desperately wanted Scott dead. Fantasized about breaking the trillionaire's neck with his bare hands.

It hadn't always been that way.

Twenty-five years earlier, Littlefield had been a fresh-faced member of the prestigious Second Commando Regiment, a special forces unit in the Australian Army. As a security specialist, he had been assigned to protect an

English businessman, Oliver Scott, who was in Melbourne to close a deal with the Australian government. Intel at the time indicated a professional hit had been ordered on this Brit, although it wasn't clear why.

Back then, Scott was largely unknown, with a paltry net worth of only five hundred million dollars or so, a peasant by his current standards. No one could have predicted the man would soon author a meteoric rise that would make five hundred million dollars seem like *pocket change*.

Littlefield cleverly ferreted out the assassination plot just in time, bravely saving Scott's life and taking a bullet in the process. Impressed and grateful, Scott had lured the captain away from the Australian military to handle his global security, offering him a deal too extravagant to refuse.

And for more than two decades, Littlefield couldn't have been happier about his decision.

But about four years earlier, things began taking a dark turn. Littlefield had never been a saint, and had done plenty of deeds over the years that were sure to land him in the bowels of hell, but he had always been able to justify his actions.

Eggs sometimes had to be broken for the greater good. And Oliver Scott had brought incalculable good to the world, increasing global wealth and prosperity by making power more accessible to all and dramatically lowering its cost—among many other advances.

Since world-changing innovations never came without drive and sacrifice, Scott had sometimes been ruthless in his business dealings, but Littlefield had always found him deeply decent on the whole. The head of security was certain Scott was devoting his life to the good of the world rather than just to the accumulation of personal wealth and power.

But that had changed almost four years earlier. In a heartbeat. Scott had become unhinged, reclusive, refusing to meet with anyone in person, save for

his daughter, Emma, who was second-in-command of Ostech on paper, but who had no real power. And he became crueler by the day, a demented megalomaniac, a suddenly tyrannical dictator who viewed human life as entirely worthless. He began demanding that Littlefield carry out utterly despicable actions, crimes of conscience that could never be justified no matter what the reward.

Despite their long history and Littlefield's own transgressions, it was a bridge too far. He refused.

Scott didn't take no for an answer. He promptly threatened the lives of Littlefield's parents, and his nine uncles, seven aunts, three sisters, one brother, and twelve nieces and nephews, along with anyone he had ever called a friend, including dozens in Scott's own organization. Given what Oliver Scott had become, Littlefield didn't doubt he would do as he said.

Of course he would. Ostech was the ultimate mob, and high-ranking mobsters knew too much to ever be allowed to leave. Littlefield would continue to perform his duties—*flawlessly*—or his family and friends would suffer the consequences.

It could have been worse. Scott could have graduated from killing thousands of innocents to killing *millions*. He had the power, and had fallen deeply enough into madness to pull the trigger. Only his daughter, Emma, kept that from happening. She had sounded the alarm to Littlefield before he had even noticed the changes in his boss, and she continued to find ways to be a moderating influence.

So far.

Emma was in on most vid-meets with Scott, where she remained largely silent, preferring to work behind the scenes to rein in her father's most destructive impulses. Littlefield had known her forever, and she was a good person, devastated by what her beloved father had become.

For almost three years now, Littlefield and Emma Scott had been plotting against her father. But the trillionaire mogul was so well protected, and had become so paranoid, they had never found a suitable opening.

The security chief pushed this from his mind as Oliver Scott popped into existence across from him at the conference table, to be joined moments later by his daughter, seated beside him. Both were 3D holographic images projected by complex technology in the conference room, but both looked almost present enough to touch. All three were in different conference rooms, but the AI handling the meeting projected each into the others' room, such that all three felt as though the meeting were taking place at their location.

Littlefield touched an icon on his phone and the actual surroundings of his guests were shown in miniature behind them, giving him a sense of their location. Today, his boss was working at his western residence on Lumos, set on the edge of a man-made cliff overlooking a spectacular outcropping of jagged rocks below. Every few seconds a wall of ocean spray would burst skyward between the rocks, a powerful, rhythmic pulse like the beating of a heart.

Emma's location wasn't clear, as the room she was in was windowless.

"What's so urgent, Jeff?" began Oliver Scott in the upper-crusty British accent Littlefield had come to know so well.

Scott was six feet tall and trim, and while he was in his late sixties, he still had thick black hair and looked to be thirty-five. Both his hair and youthful appearance were due to restorative treatments his brain trust had recently developed that didn't require Botox or plastic surgery. Emma, forty-two, looked to be in her twenties for the same reason.

"Sorry to bother you," began Littlefield, his own Aussie accent not having diminished over the years, "but I got an urgent alert from one of the security AIs. The one responsible for handling and monitoring outbound

communications from Arcadia. Do you remember a woman named Kimberly Reynolds?”

“Of course,” said the tech trillionaire.

“Then I’m sure you also remember she invented the AI implants America’s EHO agents are using. Her ex-husband is with EHO, in fact. While this is a small group, and not nearly as formidable as we are, they can be quite impressive in the right circumstances. So when Kim Reynolds entered Arcadia over three years ago, and her ex, Major Liam Dunne, seemed ready to move heaven and earth to find her, we decided to placate him. Why go looking for trouble? So we allow them to communicate once per year to keep him out of our hair.”

“*Bloody hell!*” snapped Scott. “Why are we still letting *any of them* communicate with the outside world? *Especially* Kim Reynolds. Do you have any idea just how dangerous she could be? We’re powerful enough not to care a whit about the public’s perception of us.”

“We’ve been over this before,” said Emma softly, with an accent matching her father’s. “Remember? We felt we had to let a small fraction of Arcadians speak to friends and loved ones. Of course we can handle the fallout from refusing outright, but as Jeff says, why go looking for trouble? And the AI we have monitoring the calls is foolproof. It delays both sides of the call a fraction of a second, and is able to end the call the moment it’s predictive algorithm detects something is about to be communicated to the outside world that shouldn’t be.”

“Right,” said Scott. “I also remember ordering Jeff to punish the hell out of any Arcadian who even *attempted* to make an unsanctioned communication. To set an example.”

Emma sighed. “And Jeff carried out these orders, Dad, trust me. Which is why they know it isn’t only futile to try anything stupid, but against their

own interests.”

A scowl came over Littlefield’s face, but he quickly erased it. Punishment was another item on the Oliver Scott menu that had arisen only after the man had become unhinged. Solitary confinement. A punishment considered by those in the know to be the ultimate torture, a fate worse than death, ultimately leading to hallucinations and madness.

“Okay, Jeff,” said Scott coldly, “stop telling me why unsanctioned information *can’t* leak to the outside world. And start telling me what bloody well *did*? If everything worked as advertised, we wouldn’t be having this meeting.”

“You’re right, of course,” said Littlefield with a sigh. “Kimberly Reynolds seems to have outfoxed the AI. So skillfully, in fact, it almost didn’t catch her, even after the fact.”

“And you’re surprised?” shouted his boss. “You idiot! You do realize she may be Arcadia’s most gifted resident.”

“I didn’t, actually,” said the head of security.

“So what did she do?”

“She transmitted a vast compressed data file into her husband’s internal optical supercomputer.”

“That should be impossible,” said Oliver Scott. “Even for *her*.”

Littlefield blew out a long breath. “My thought also, but it seems she took advantage of a perfect storm. She’s a world-class expert in computers and AI. And her ex-husband has a supercomputer in his head—which she actually *created*.

“Even then,” he continued, “the monitoring AI tells me what she did shouldn’t have been possible. So she must have developed revolutionary methods behind our backs, so to speak. The data was compressed at an almost unimaginable density, and the transmission was protected within an

outer shell of lesser compression the monitoring AI didn't recognize. The transmission was disguised as a random surge."

"So what will it take for Dunne to unravel it all and get at the data?" asked Scott.

"The outer compression shell is like a vault. It protects the data inside, but its primary purpose was to bypass the monitoring AI. It can be breached fairly readily by anyone worth their salt. But the data inside is a different story. It's compressed at densities, and using methods, never seen before. Reconstructing the data into usable form will take a next-level expert. Assuming it's even possible. "

"Did she tip off Dunne that she sent it?" said Scott. "Or give him any indication of what it contains?"

"No. Had she tried, the monitoring AI would have shut down the call. And she'd have tipped *us* off as well."

Scott shrugged. "So what's the problem, then? Our own AI didn't recognize the transmission contained highly compressed data until it was too late. So how will Dunne ever figure it out?"

Littlefield winced. "I replayed their conversation," he said. "And Kim Reynolds brought up a decompression expert named Amoreena Berg. The AI thought it was innocent at the time, but that's actually what prompted it to reexamine the surge. With compression in mind. Dunne is brilliant in his own right, so I wouldn't be surprised if he does the same. He may realize what he has in his head and seek out this Dr. Berg."

"Have you sent a hit team for her?"

"No. Dunne is currently staying with a fellow EHO agent, Brianna Cutter, in a rental home on Coronado Island. Unfortunately, the island also houses one of the most important Naval bases in the US. Not only do SEALs operate out of this base, another next-level data compression expert is

stationed there. One who might be able to unpack the file.”

“Right,” said Oliver, ever fast on the uptake. “So if Dunne isn’t aware of what’s in his head, killing Berg will cause him to dig deeper into what’s going on. And if he *is* aware, he can still find other experts who might be able to unpack the file if Berg is erased from the picture.”

Littlefield nodded.

“Okay,” said Scott in exasperation. “So send a bloody hit team after *them*.”

“By them, I assume you mean Liam Dunne and Brianna Cutter?”

“Yes.”

“A hit team is already on the way. Just after the AI alerted me, about twenty-five minutes ago, I ordered a dozen of our mercenaries in Southern California to rush to Coronado and be ready for further instructions. Normally, I’d just send one, but these agents are exceptionally talented.”

“Good,” said his boss. “But on second thought, it would be a mistake to kill them now. Dunne might have already told his superiors about the transmission. So if he turns up dead, EHO will dig deeper.”

Scott paused in thought. “So we have to do more than kill them,” he said finally. “We have to *discredit* them also. Since EHO is one of the few groups with even a remote chance of disrupting our operations, this will be a two for one. If we do it right, we can discredit them and put EHO on the hot seat at the same time. Maybe even get EHO disbanded completely.”

“What do you have in mind?” asked Littlefield.

“Don’t worry, your services won’t be needed. I’ll direct your people myself. This will require considerable skill, and I fear you’ve become too squeamish to do what it takes.”

Littlefield swallowed hard. The only reason he was still alive was because he was still useful. He still commanded respect and could still wield

Ostech security resources like no one else. But if this usefulness diminished much further, Scott would have him killed without a second thought, despite Emma's continued efforts to keep him alive and in his current position.

He hid how he truly felt about Oliver Scott and continued to perform his duties exceptionally well. And not just for his family's sake. If he were killed, the chances of Oliver Scott being stopped fell to zero.

After Scott's initial threat, Littlefield had pretended to rethink his position. Pretended to have returned to being a loyal soldier. When he had allied with Emma, she had applauded this strategy and adopted it herself. They would bide their time, probe for weakness, and *appear* to be exceedingly loyal to her father—until they *weren't*.

So far, though, no real chinks in Scott's armor had presented themselves. The man was extraordinarily brilliant, and more paranoid all the time. He let no one but Emma in the same room with him, and even her visitations had become rare. When she did meet with him, he upped security to dizzying levels and had her screened for weapons. His own daughter.

Which just went to show how smart he really was.

"Whatever you have in mind, sir," said Littlefield, "I can handle it."

"Maybe. But I'd prefer to take care of this one on my own."

The captain sighed. "No worries then. Whatever you want."

"Are we done here?" said Scott.

"Almost," said Littlefield. "There is one last thing. The AI thinks it knows what's in the file she sent."

He blew out a long breath.

"Are you going to tell us, Captain?" snapped the trillionaire impatiently. "Or should we play bloody charades?"

"I'm going to tell you, of course. But brace yourself. Because you aren't going to like it. You aren't going to like it *at all*."

13

Brianna Cutter sat in a chair beside the bed and watched Liam sleep. The bastard was so damned magnetic, even out cold, it had taken all of her willpower to enforce her no-lovemaking edict.

He had screwed up royally, but at least he hadn't tried to pretend otherwise. He had explained as well as he could, and she could empathize with him to some degree, although she was still angry at the deception.

Still, he was such a good man, with such a good heart. He gave credit to others when it was due, didn't take credit himself when it *wasn't*, and freely admitted mistakes.

All in all, he was much easier to forgive than most. Especially since the way his wife had left him had been tragic and heartbreaking. It wasn't any wonder he had been so reluctant to tell her about it.

He had left out a huge and important chunk of his life, but she hadn't disclosed every detail of her past, either. Every past love, every heartache. His was a far greater transgression, but it wasn't as if this omission had prevented her from knowing the real Liam Dunne. She had been in a number of high-stress, life-and-death situations with him, and had witnessed his ethics and character many times. She knew *exactly* who he was.

Besides, who he had been in the past was less important than who he was now. And what was most important was who they would be *together*.

In thirty-five minutes, at six, he would awaken for good, and they would have made it through the night without incident. Most would count their blessings. Liam would be disappointed. Especially since they had gone out of their way to prepare for the worst-case scenario.

They were protected by body armor and were within easy reach of

compact submachine guns and stun grenades. They had set up an array of tripwires and booby traps in the unlikely event any hostiles made it inside.

Dozens of hummingbird-sized drones patrolled outside, or had landed in positions to cover every possible means of ingress, doors and windows alike. All were ready to pierce enemy skin with tranquilizer darts on Jess's broadcasted command.

And that was just for starters. They had also positioned several canisters of gas that could be triggered remotely, enough to knock out three housefuls of soldiers, who, not being enhanced, would be forced to breathe before the two EHO agents were.

Finally, Jess could access the home's speaker system and was ready to unleash a sonic weapon, an extended shriek so earsplittingly shrill it would deliver debilitating agony to anyone without internal comms capable of cancelling it out.

Brianna watched the rise and fall of Liam's chest and decided she didn't have the luxury of being hurt, jealous, and angry over the surprise he had sprung. Too much was going on. The poor guy had lost his AI, after all, probably at the hands of his ex. An ex who was likely in deadly peril. Talk about repeated blows to his psyche. By keeping her distance, Brianna would only make things worse for him, at a time he needed her the most.

Brianna decided to wake him early. Make love to him before they readied themselves for their trip to Tucson. Make it clear that with all he had to worry about, the question of when she would fully forgive him wasn't one of them.

She shook him gently awake and kissed him on the forehead.

"All quiet on the western front?" he asked serenely, smiling at her.

"Sorry," said Brianna. "I hate to be the bearer of bad news, but I'm afraid so."

She eyed him suggestively. “On the other hand, if you’re looking for excitement, maybe *I* can help with that. Why don’t you freshen up, and I’ll change into something less . . . *protective*.”

He grinned. “Now we’re talking.”

“Approaching hostiles detected!” shouted Jess into their comms, purposely using her loudest setting to ensure she got their full attention.

Liam leapt to his feet like a predatory cat as tiled holographic images of commandos in full combat gear sprang into existence in front of each of their lenses.

“Counting twenty-four enemy combatants just entering the drones’ visual perimeter, thirty yards out,” announced Jess, “Eight each have been detected due east, due north, and due south, and are slowly converging on this position.”

An additional holographic tile materialized into existence in front of them to join the other displays. “Eight more hostiles just emerged from the ocean,” reported Jess. “Due west,” she added unnecessarily.

Liam and Brianna had already scooped up compact submachine guns that had been resting by the bedside and were busily donning fully loaded combat vests as they studied their tactical displays.

Brianna had trouble believing what she was seeing. The manpower they were facing was several times their worst-case scenario, and the ingress drones wouldn’t have enough darts to put them all out. Still, between the booby traps, gas, and sonic weapon, the hostiles would find they had breached the ultimate kill box.

“Once they’re all inside,” said Liam, “I’ll have Jess trigger the gas, and we can hold our breath on her mark.”

“Hold on!” said Brianna urgently. “Zoom in on the hostiles to the east. Aren’t those Type II Navy Working Uniforms?”

“Holy shit!” said her partner in dismay, noting the distinctive desert camouflage pattern worn only by Navy SEALs. “Jess, scan the hostiles for any SEAL Trident tattoos. Perform facial recognition on as many of them as you can and crosscheck against SEAL personnel databases.”

“Don’t share individual results,” added Brianna hurriedly. “Just tell us the likelihood of the force attacking us being comprised of SEALs.”

“The likelihood of this being a SEAL operation is greater than ninety percent,” responded the AI almost immediately.

The two operatives traded horrified glances. Talk about worst-case scenarios. Neither could have conjured this up in their worst nightmares. Could *all of them* be working for Oliver Scott? Impossible. SEALs were like EHO agents, they didn’t turn—especially en masse.

“Given they’re friendlies, Jess,” said Liam, speaking quickly, “you should have access to their command codes. If so, intercept their comms, determine who’s in command, and open a channel.”

“Done,” said the AI as the thirty-two commandos, now less than ten yards away, continued to close in like living walls. “A channel is now open to Commander John Vargas.”

“Commander Vargas, this is Major Liam Dunne. Discontinue attack immediately! I repeat, discontinue attack. Do not breach this home. It’s booby-trapped, and I can’t guarantee the safety of your men.”

There was a long silence as Vargas digested this unexpected communication. “I can’t do that, Major. I had hoped this would be a surprise attack, but the fact you’re alert changes *nothing*. And I know a couple of butchers like you don’t give one shit about my men.”

Brianna and Liam exchanged confused glances. Butchers like them?

“Of course we do, Commander,” replied Liam with absolute sincerity. “You’re our brothers-in-arms. Which begs the question, what the hell are you

doing?”

Now that surprise was out of the picture, several attack helicopters could be heard approaching from over the ocean.

“If you care so much about us, Major,” said Vargas, “surrender now. You have no chance. And yes, I’m aware you’re both some kind of Steve Rogers wannabees and more formidable even than we are. But there are thirty-two of us, along with three Apache helicopters. And reinforcements literally a few miles away. You’re going down no matter what.”

“You might be surprised, Commander.”

Brianna rolled her eyes. *Men*. Was this really the time for a pissing contest?

“Commander Vargas, this is Major Brianna Cutter,” she said. “We’re on the same team here. It’s clear you think otherwise, which means there’s been an enormous misunderstanding. Stand down, and I’m sure we can sort this out.”

“I don’t think so,” said Vargas. “I’ve been ordered to kill you on sight—which is what you *deserve*. I shouldn’t even be giving you the *chance* to surrender. Believe me, I won’t be offended if you refuse.”

“Give us a few minutes to consider your offer,” said Brianna.

“You have sixty seconds.”

Liam turned to Brianna the moment the channel was closed. “Have Jess get Phil on our comms!” he said frantically. “*Yesterday!* If anyone can shed light on this, it’s him.”

“I’ve already tried. No answer.”

“What do you mean, no answer? He *always* answers.”

“Not this time.”

“Crap!” said Liam in alarm.

Brianna’s mind was racing, but they had no workable options. “We have

no choice but to surrender,” she said.

Liam nodded his agreement.

If they had been up against an actual enemy, they’d have a reasonable chance of prevailing, despite the extraordinary odds against them. They were that prepared, and that good. But neither would think of killing a fellow member of the US armed services, no matter how misguided.

“There’s no chance they all sold out, right?” said Liam.

“Infinitesimal,” said Brianna, “but it costs us nothing to explore the question.”

She had Jess reopen the channel to John Vargas. “Are you willing to provide proof this is a legitimate op, Commander? ”

Vargas snorted. “Of course it’s legitimate,” he said. “Do you really think *all of us* have gone rogue? It’s absurd. But even so, I’ll play along. Pedro Vera gave the order himself,” he added, referring to the Secretary of Defense. “I can send you a video clip, which I know you have the means to authenticate. But if you don’t come out with your hands up within twenty seconds of receiving it, the only way you’ll be leaving that house is in a body bag.”

Brianna and Liam shared a look that spoke volumes. If Vargas was willing to send the clip, it would surely check out.

“No need,” said Liam. “We’ll stipulate you have legitimate orders, Commander. So we’re willing to surrender. But given your orders, we want your word of honor you won’t kill us anyway after we do. Or tell anyone other than your base commander we’re still alive until we’ve had the chance to talk. A terrible mistake has been made here, and we need the chance to set the record straight.”

“No mistake, Major,” said Vargas. “But you have my word, as long as you cooperate you’ll stay alive. And the SecDef is at a retreat with members

of Congress. I was told not to disturb him until late this afternoon, anyway. Not unless something went wrong. I won't interrupt him, even though I suspect he'd classify your surrender, as opposed to your *death*, as something having gone *wrong*."

"Thank you," said Liam. "We're coming out now."

Brianna shot her partner a horrified look. "This is insane," she whispered. "What in the hell is going on?"

Liam set his submachine gun on the bed and began removing his combat vest. "I have no idea," he replied. "Let's just hope we live long enough to find out."

PART 3

True to his word, Commander John Vargas didn't gun down the two EHO agents as they exited the rental residence with their hands in the air, but he wasn't gentle, either. He watched them with palpable hatred, leaving no doubt he'd be delighted if they gave him an excuse to shoot.

While he and his fellow SEALs manhandled the two prisoners, they were also treated with the degree of caution they warranted, such that it took almost twenty minutes to transport them to a holding cell within the Naval Amphibious Base nearby.

Naval Base Coronado was a constellation of eight facilities on the island, under the umbrella command of Admiral Brian Finneran, collectively employing over thirty-six thousand military and civilian personnel. The two most prominent of these eight facilities were Naval Air Station North Island, the largest such station in the country, and Naval Amphibious Base Coronado, which housed more SEALs than any other facility in the world.

Liam and Brianna now sat on utilitarian steel chairs behind a large steel table bolted to the floor. The claustrophobic walls of the interrogation cell were drab gray concrete. Both prisoners had their arms and legs cuffed and chained to bars welded to the floor and table.

Across from them sat Commander John Vargas, still wearing combat fatigues, and Captain Rebecca Perrine, the commander of the amphibious base, which itself supported five thousand military and seven thousand non-military personnel. Perrine, who was due to be promoted to admiral herself within twelve months, was also second-in-command of the entire eight-base installation.

The captain placed a tablet computer on the table in front of her and sized up the prisoners with absolute contempt. “I’m surprised you surrendered,” she began.

She glanced at the commander disapprovingly. “Even more surprised Commander Vargas gave you the *chance*,” she added pointedly.

“He did the right thing,” said Liam. “The element of surprise was gone, and he was aware of our capabilities. Why risk casualties unnecessarily?”

“I don’t need *you* to defend me!” snapped Vargas.

Perrine ignored her subordinate, staring into Liam’s eyes with a laser-like intensity. “You make a valid point, Major. On the other hand, what if you had no intention of surrendering? What if you were just buying time? In that case, the commander’s delay could have resulted in *more* casualties. Based on your demonstrated savagery, I wouldn’t have taken that chance. But the commander did, and his judgment proved to be sound.”

“*What* demonstrated savagery?” said Brianna.

“Don’t pretend you don’t know,” said Rebecca Perrine.

“We *don’t* know,” said Brianna. “Were you given access to our records? They’re exemplary. We’ve both received multiple commendations for upholding the highest standards of military conduct.”

“Your records are classified well above my pay grade,” said the base commander. “But I don’t need to see them. Regardless of what any files might say, we have indisputable evidence of your guilt.”

“Look,” said Brianna, “we’re talking past each other. Until you show us what evidence you think you have, we’ll get nowhere. So how about it? Can we at least know what we’re being accused of? Has to be something big, or you wouldn’t have sent an army for us.”

“All we know,” added Liam, “is that whatever is going on here, you’ve got it all wrong.”

Captain Rebecca Perrine visibly gathered herself, still eyeing the prisoners as if they were an odious pair of cockroaches she had stumbled upon after turning on a light.

“About five hours ago,” she began, “an emissary of Oliver Scott visited our base. He sent two others to visit President Kent and Defense Secretary Vera. These emissaries somehow had the pull to get an immediate audience with both of these men in the middle of the night.

“Each emissary brought the same information. A thumb drive containing a ninety-four-minute video organized chronologically into an airtight case against you. On the footage, Oliver Scott himself presented the case and introduced each piece of video evidence with the proper backstory and context.”

Liam could barely stop himself from protesting but held his tongue, needing to learn exactly what they were dealing with before crying foul.

“I’ll show you the first video, taken fourteen months ago,” said Perrine. She gestured at Liam. “According to Oliver Scott in the introductory section, Major, before this video was taken, you had been trying to arrange a call with him for over two years. *Relentlessly* trying. Harassing and threatening key Ostech personnel and sabotaging various Ostech sites. These activities finally hit the radar of the wealthiest man in the world, and he agreed to a call, hoping he could get you to cease and desist.”

“Except none of that ever happened,” said Liam, unable to help himself.

Perrine slid her tablet computer in front of the two prisoners. “This says otherwise.”

She paused to make sure their eyes were on the screen and then continued. “Computer, play video snippet one now.”

The faces of Oliver Scott and Liam Dunne immediately appeared on the tablet. “Okay, Mr. Dunne,” said Scott on the screen. “I’ve given you the

audience you've asked for. So what do you want?"

"It's *Major Dunne*, as I'm sure you know," spat Liam. Raw hatred pulsed from his every pore, and veins bulged in his neck and forehead. "And you also know *exactly* what I want, you son of a bitch. *I want my wife back!*" he screamed with a savage intensity.

"And who is your wife?" asked Scott, visibly trying to counter Liam's anger with calm, as if he were a doctor dealing with a volatile mental patient.

"Come off it, Scott! As if your people didn't tell you prior to the call. My wife is Kimberly Reynolds. The leading expert in optical computing and AI systems on the planet. A woman whom you recruited to the think tank you call Arcadia."

Scott sighed. "My team recruits thousands of top scientists from around the world," he said. "I'm sorry if she had to leave you to join our efforts. I really am. But it was her choice. She must have thought the chance to make an indelible impact on the future of humanity was rather important. More so than your relationship."

"This isn't *just* about how much I love her," said Liam on the screen through clenched teeth. "Which I do. It's also about my life—my *sanity*. I'm with a clandestine group called Enhanced Human Operations. A supersoldier program. The elite members of this program all have optical supercomputers and AIs implanted in our brains. Which my wife invented. And something has gone horribly wrong with mine. I need her to fix it."

"A supercomputer in your head?" said Oliver Scott skeptically. "You're aware brain implants like these have been outlawed around the world, right? And I've never heard of an optical supercomputer small and powerful enough to be used for that purpose."

"*You lying son of a bitch!*" screamed the EHO agent, spittle flying from his mouth.

The Liam on the screen visibly tried to get his emotions under control while the Liam watching the scene unfold looked decidedly ill.

“We both know that’s why you recruited her,” continued the Liam on the video, now at a much-diminished decibel level. “Because she was able to do what even *you* couldn’t. But something’s gone wrong with my implant. It’s causing hallucinations. I sometimes have trouble knowing what’s real and what isn’t. I’ve also been blacking out on occasion, waking up with no memory of long stretches of my life.”

“I’m sorry to hear that.”

“Yeah, sure you are. But there’s more. People are downloading data into my brain. Frequently. She has to make them stop!”

“Downloading data?” said Scott in confusion. “What *people*?”

“I don’t know. Evil people. People who want to dominate the globe.”

“How would implanting data in your bloody head help them with that?”

“I don’t know. I just know it keeps happening.”

“And have any of these fellow agents of yours, who also have implants, reported similar symptoms?”

“No.”

“Then isn’t it more likely you’re having a mental breakdown, all on your own? That your . . . *difficulties* . . . have nothing to do with a phantom implant in your head?”

“Besides,” continued Oliver Scott, “even assuming you actually have a supercomputer implant, and even if it were malfunctioning, are you suggesting some glitch is compelling megalomaniacs to download data into it? You must be daft. You need to get help, Major.”

“Why do you think I’m talking to you, *shithead*? Or haven’t you been listening? I need Kim Reynolds. She’s the only one who can help.”

Scott blew out a heavy sigh. “I’m sorry, Major, but I won’t ask her to do

that. She can't help you. Only a trained psychiatrist can. Also, I called up her file while we've been speaking, and she told our recruiter you were physically abusive. Had beaten her on several occasions, in fact. Which she cited as one of the main reasons she joined Arcadia—to get away from you.”

“That bitch!” bellowed Liam Dunne on the screen. “She said she forgave me!”

“I need to go, Major. Get help.”

Liam snarled at the tech mogul, but his tone turned from searing hot to icy cold. “There's nowhere you can go where I won't find you,” he said, almost in a whisper. “If you don't produce Kimberly Reynolds, I'll tear your head off your shoulders with my bare hands.

“You have no idea what EHO agents are capable of. Our black site scientists have perfected genetic engineering methods even Ostech can't match. I have an improved immune system, strengthened skeleton, increased muscle density. My blood has many times the oxygen-carrying capacity of a normal man. I have enhanced strength, speed, endurance, balance, fluidity of movement, and so on. I can zoom in on objects and see at night. I heal at a rate few would even believe. I'm impeccably trained and resourceful.”

The Liam on the screen paused to let this sink in. “And I'm coming for you, Oliver Scott. I don't care how rich you are. I won't rest until I destroy you. I'm going to take down your empire. Then I'm going to kill your daughter Emma in front of you. And then I'm going to torture you for days on end. I'll start by stabbing your eyes out with a red-hot needle. That way, you won't be able to see what tortures are coming next.”

Scott looked properly horrified, but only for a moment, before he forced his face and tone into an almost clinical detachment. “I'm sorry you're suffering from schizophrenia, Major, I really am. And I'm sorry you're feeling such rage. Again, I urge you to get the help you need.”

“I’m going to slice that smug expression off your face with a razor blade!” screamed Liam. “And that’s a promise.”

“Sure you are,” said Oliver Scott dismissively. “Good luck with that.”

With these words the video ended, and the computer screen went blank once again.

Liam's stomach had been clenched for some time. The footage was so real it almost had *him* convinced. It was a brilliant piece of theater.

Whatever Kim had implanted in his head must be even more important than he thought. Oliver Scott, *himself*, had gone to incredible lengths to launch a preemptive strike against him. The man had found a way to discredit anything Liam might have said about a compressed data file in his head. Found a way to call Liam's memory into question, and also his *sanity*.

Scott's planning and execution had been flawless. His speed and skill in putting it all together, extraordinary. Liam's own mother would be fooled. And this was the first video in a series.

It would only get worse from here.

He glanced at Brianna in alarm, wondering what effect the vivid footage was having on *her*. He desperately wanted to query her telepathically, but she had the only working AI able to transmit thoughts to a comm, so telepathy was now one-way traffic only.

"Don't worry, Liam," said Brianna's telepathic voice in his ear, as if she had read his mind. *"I know there's not a trace of reality in that footage. I've been with you since this call was supposed to have happened, and you've been nothing but calm, gentle, and loving. Still, Scott's done a hell of a job painting you as a schizophrenic monster."*

Liam nodded at her, almost imperceptibly, and turned toward his two inquisitors. "I'm starting to see why you've been looking at us the way you have," he said softly. "Why you wanted so badly to kill us. And I'm sure the footage only gets worse from here. If we had seen these videos—and

believed them—we'd feel the same way you do. But I'll say it again. None of this ever happened. You're being played. The videos are fake."

"You don't think we'd run them through the Deep Fake Detection algorithm?" said Vargas. "I oversaw the testing myself. Ran it multiple times, not that it was necessary, as we all know the algorithm is foolproof."

"We also know the tech was developed by Oliver Scott," said Liam.

"Which means nothing," replied the commander. "It's been tested countless times on known fakes and never once failed to spot them. Scott's people created it by feeding many millions of videos to a specialized AI, half of the videos known to be real, and half created to be perfect fakes, which no technology could tell apart. The AI somehow trained itself to tell the difference, although no one is quite sure how. Apparently, its method is too mathematically intensive for a human to grasp. The bottom line is this: Since no one has any idea how it works—even the people who created it—no one has ever found a way to fool it."

"Scott has," said Liam decisively.

"Do you deny that your ex-wife left you to join Arcadia?" said Perrine.

Liam sighed. "I don't. And I don't deny being suspicious of Scott and his empire. But Kim wasn't abused in any way. Far from it. We were very much in love when she left. I have no doubt the rest of the videos in the series are also quite fake. But to give Scott his due, he found a way to frame us that appears irrefutable. Luckily, he made a fatal error. One that will allow me to prove our innocence."

"What error is that?" asked John Vargas.

"He miscalculated *you*, Commander. He miscalculated your spine. He pulled strings so you'd be given orders to kill us on sight. Orders that gave you zero latitude, as you confirmed when we first spoke. Still, you weren't willing to put your men at risk if you could help it, so you disregarded those

orders—which were technically unlawful anyway.”

Liam nodded at the man across from him. “Thank you, Commander. Reinterpreting orders from the secretary of defense takes some major steel, and I admire you for it. Had we been killed as we were supposed to have been, Scott’s perfect, fictional narrative would have been tied up with a bow. Dead men don’t defend themselves. Or find ways to prove their innocence. But we can. And we *will*.”

“We’re all ears,” said Captain Perrine.

“Before we can convince you you’re being played,” said Liam, “we need to get a quick summary of everything you have against us.”

“I’m surprised you’re not asking to see Scott’s entire presentation.”

“That would take too long,” said Liam, “and we’re running out of time. We need to prove our innocence before you’re forced to tell the SecDef we’re alive.”

“Why?” said the captain.

“When Scott finds out, he’ll find a way to finish the job.”

Perrine snorted. “There’s no way anyone can justify executing you now. Not while you’re restrained in a holding cell and pose no threat.”

“And yet, somehow it will happen anyway,” said Liam. “So humor me. To be honest, even if we had the time, I wouldn’t want to see the rest. I don’t have the stomach for watching a monstrous version of myself, even knowing it’s fictional. It looks too damn real.”

“Because it *is* real,” said Perrine. “But I wasn’t going to show the rest, anyway, even had you asked. Especially the last video, which I won’t watch again under any circumstances.”

“Then it must be truly barbaric,” said Liam. “I’m sorry you had to see it even once. I really am. But we’re being framed.”

The captain studied Liam for several long seconds. “You look and sound

so *sincere*,” she said. “And it is hard to imagine the butcher on the video surrendering the way you did. Especially given the death trap the commander’s team reported was waiting for them inside your rental.”

She paused in thought. “So maybe you aren’t just schizophrenic, as Scott thought, but suffer from multiple personality disorder. Maybe you have a Jekyll and Hyde thing going on. It would explain your blackouts and memory loss. What you think of as blackouts are periods when your savage alter ego has taken over.”

“Major Dunne doesn’t suffer from blackouts *or* memory loss,” insisted Brianna. “And I’m guessing I come out looking like a psychopath also, right?”

The captain shuddered, almost imperceptibly. “Very much so.”

“How does Major Dunne being schizophrenic account for *that*?” said Brianna. “The videos are fiction, Captain. The major’s mental health is fine. But give Scott his due, he’s done a masterful job of framing us.”

“So why don’t you hit us with the rest,” said Liam, “so we can learn just *how* masterful.”

The base commander nodded. “Okay,” she said. “Let’s do this.”

She paused to gather her thoughts. “After the call with Scott you just viewed, he was pretty shaken up. He made sure his head of security, a man named Jeff Littlefield, kept track of you as well as he could. The next two videos show you gradually convincing Major Cutter and General Phil Thomison that Oliver Scott presents the greatest threat to national and global security the world has ever seen.”

“How did I do that?” said Liam.

“You fabricated evidence that Oliver Scott was a ruthless megalomaniac. And you were convincing enough to get them both firmly on board. After that, additional video snippets show the three of you meeting in private,

plotting to take him down.”

“What do you mean?” said Liam. “Assassinate him?”

Perrine rolled her eyes. “As you well know, Major, your plan was to declare war on Ostonia. Literal war. Specifically, you planned to assassinate President Kent and Vice President Frontiero, framing Scott for the murders. You believed this would accomplish two key objectives. One, whip up the American public, reeling from an unprecedented double assassination, into rabid support for a war against Scott. And two, get the current Speaker of the House installed as president. A Speaker who campaigned on reining in tech power, especially Scott’s. In one fell swoop, you’d manipulate both the public and the presidency into being out for blood against your greatest enemy.”

“Wow!” said Liam in awe. “If we really were plotting to destroy Scott and his empire, we couldn’t have come up with a better plan. Oliver Scott is truly a maestro. Not that I’m in the habit of praising a rifle whose barrel is pointed at my head.”

“Wait a minute,” said Brianna, suddenly alarmed. “If we were supposedly plotting this with General Thomison, is he in custody? Or were the soldiers sent for him ordered to shoot him on sight?”

“He’s in custody. He was captured first. Knocked unconscious with a long-acting tranq so he couldn’t find a way to warn you. ”

Both prisoners were visibly relieved. “*Thank God,*” said Brianna.

“Your fellow EHO agents are also being recalled from wherever they’re operating,” continued Captain Perrine. “A secret, emergency session of Congress has been called, but your entire group will almost certainly be disbanded, and its members monitored.”

“Why?” asked Liam.

“Scott didn’t have direct evidence other EHO agents were involved, but

it's very likely they were, knowingly or otherwise. The bottom line is that EHO was plotting what amounts to a coup on the US government. Your operatives are too formidable for their own good. Making them too dangerous to be tolerated any further."

"*It's like something out of a Marvel movie,*" broadcast Brianna into Liam's comm. As beautiful as she was, she was still a comic book geek at heart. "*Life imitating art. In the comic universe, over a hundred nations signed something called the Sokovia Accords, which controlled the activities of anyone with enhanced capabilities.*"

Liam blew out a long breath. So Scott had managed to discredit them *and* destroy EHO in one fell swoop. This just kept getting better.

"Getting back to Phil Thomison," he said. "I'm curious. If we were ordered to be executed on sight, why wasn't he?"

"The general plotted against the president and vice president," replied the captain. "He was prepared to commit atrocities if necessary to stop Oliver Scott. You two, on the other hand, actually *committed* atrocities, acting on your own."

"I see," said Liam. "And we supposedly committed these atrocities last night?"

"No supposedly about it," said Perrine.

"Hold on," said Brianna. "Back up for a moment. How can Scott have footage of top-secret meetings we supposedly had with Phil Thomison? EHO is America's most secret, and secretive, agency. We routinely scan for cameras coming in, and electromagnetic signals coming out. Even more telling, as I'm sure you've noticed, our faces don't even register properly on cameras.

"Fake Liam was accurate when describing EHO's capabilities," she continued. "We do have optical supercomputer implants in our heads. The AI

residing in these implants can alter our appearance when we're being recorded, or scramble us entirely. So even if Scott could film these meetings—which he couldn't—we wouldn't appear as ourselves.”

Vargas shook his head. “First, just like Oliver Scott, we don't believe the bit about supercomputers in your brains for an instant. But we are aware you have some kind of wearable tech that screws up cameras. Scott is aware, also.

“As to how he got the footage of your meetings, he explained he used prototype tech, which has yet to be made public. Namely, drones that are exact replicas of dragonflies, down to the fake wings and coloration, at least when they're used outdoors.

“When used indoors, the drones can fly silently and camouflage themselves like a chameleon while they find hiding spots. And they carry cameras smaller than salt grains. Undetectable cameras capable of recording audio and video of comparable quality to standard cameras a thousand times larger. The system uses something called meta-optics, millions of microscopic nano-cams that capture optical information, which an AI can piece together to forge flawless reconstructions.”

Liam snorted. “Just because Scott can make this sound plausible doesn't change the fact that it's pure fantasy.”

“Except it's *not*,” said Vargas. “He sent five of the dragonfly drones with his emissary. We confirmed they work exactly as advertised.”

“Of course they did,” grumbled Liam with a pained expression. “This guy is *really* starting to get on my nerves,” he added.

There was a long silence in the grim holding cell. “So tell us what atrocities you think we committed last night,” said Liam.

The head of Naval Amphibious Base Coronado rose from her chair, whether to stretch her legs or be able to look down on the two prisoners was unclear.

“I’ll only be telling you what you already know,” she said. “Still, the commander gave his word you’d have the chance to respond to the charges against you. So I’ll give you a brief summary. When I’m finished, you’ll have five minutes to prove your innocence. You won’t be able to, of course, but it will be interesting to see you try.”

She didn’t wait for a response. “At 6:43 yesterday evening,” she began, “Oliver Scott instructed the heads of digital security from his top seventeen facilities in the western region of the US to drop everything and gather at Ostech’s San Diego facility downtown. He was troubled by recent breaches and ordered all seventeen to arrive by eleven, taking corporate jets if necessary. He insisted they roll up their sleeves and work through the night and beyond until they got to the bottom of what was going on.”

Perrine paused. “The two of you intercepted Scott’s communication and decided this gathering presented an opportunity too good to pass up. You were in the perfect place at the perfect time. You realized you could squeeze Ostech’s top security people for intel on Oliver Scott’s security apparatus, possibly even gain backdoor access to his inner sanctum. And you could frame him at the same time for a heinous crime.

“Call it a warm-up act to get the public against him and pave the way for

the main event—framing him for the assassination of President Kent and Vice President Frontiero.

“As you well know,” continued the base commander, “Ostech employs many thousands of ex-mercenaries as bodyguards for key personnel around the world. At 7:33, less than an hour after Scott ordered this all-nighter, you impersonated him digitally, and ordered three high-ranking ex-mercs to join this meeting to protect the participants.”

“If we wanted to interrogate Ostech heads of security,” said Liam, “why would we arrange for them to have *protection*?”

“Pretending to be confused by your own actions won’t convince me of your innocence, Major. Even so, I’ll be getting to that soon.”

“Right,” said Liam. “Please continue.”

“A little less than four hours later, the two of you made your way to downtown San Diego. You arrived at the Ostech facility at eleven twenty and then sent another message to the three mercenaries. A message that also appeared to be coming from Oliver Scott. The message showed your images, said you were VIP participants at the meeting, and told them to come to the lobby to introduce themselves and usher you both inside.

“Once inside, you activated a signal jammer, ensuring the cameras in the building couldn’t send out video of your actions, and then quickly killed the three mercs—one of them with a letter opener.”

“A letter opener?” repeated Liam. “Why in the hell would we do *that*?”

“Once the mercs were dispatched,” continued the captain, ignoring him, “you easily captured and restrained all seventeen security heads. You then physically destroyed every camera in the building, making sure footage of you could never be transmitted, even after your signal jamming stopped. You didn’t know about the meta-optic surveillance cameras Scott had invented, or that the San Diego facility was one of just a few who were testing out their

use.”

“*Really?*” said Liam in disgust. “So we just *happen* to be vacationing next door to an irresistible target. One that Scott randomly makes materialize out of the blue. We just *happen* to be able to emulate Scott digitally. And the San Diego facility just *happens* to be a test site for the only cameras on Earth we couldn’t detect and destroy.”

“Unlikely events happen all the time, Major,” said Perrine.

Brianna frowned. “So—*conveniently*—when we left, when we were no longer jamming signals, the footage of us killing the mercs and capturing the security heads was broadcast out.”

“And so much more,” said the captain. “Even before midnight, you had already begun torturing the Ostech security experts for information. Individually and in small groups. The cameras were set to record video, only, and didn’t offer blanket coverage of the facility, but it’s hard to imagine you didn’t get the information you were after.”

She shook her head in horror as she remembered, and the blood drained from her face. “You tortured them in ways that will haunt me for the rest of my life,” she whispered, and her shell-shocked expression underscored these words. “You pulled fingernails, burst eyeballs, and cut off fingers. You slit throats in front of others to make a point. You were *barbaric. Merciless*. In the end, you killed them *all*. It was carnage. A *bloodbath*.”

“I can’t even imagine what that must have been like to watch,” said Brianna. “But when we convince you it never happened, I hope it will soften the blow.”

Liam cringed. “But it *did* happen, Bri. That’s just it. Because these are events that can be verified. So Scott’s people must have done everything the captain described. They just digitally removed the psychopaths Scott hired to commit these barbarities—and put *us* in their place. They made sure the

surveillance was video only, to limit how much they had to doctor.”

He nodded toward Perrine since his chained hands made other gesturing impossible. “I assume you visited the building in the dead of night and found the carnage exactly as it appeared in the footage.”

“No,” said Vargas. “I was the one who drew the short straw on *that* duty.”

He looked even more haunted than his commanding officer—and for good reason. He had not only seen the footage, he had witnessed the aftermath firsthand. It was truly a wonder he had let them surrender. Liam wasn’t sure he could have.

“My team and I found the seventeen security heads,” continued the commander. “All of them butchered. Along with the one mercenary you left for us to find.”

“I don’t understand,” said Brianna.

“Still playing stupid?” said Vargas. “Okay, I’ll humor you one last time. After the two of you killed the security heads, footage shows you hauling off two of the three corpses in the lobby, presumably to dispose of them. The last one, the one you stabbed with a letter opener, was left behind to complete your frame.

“You planted a phone on him. One with a message you had sent to it earlier—purportedly from Oliver Scott. The message explained that an unknown number of the seventeen heads of security had teamed up to embezzle from Ostech and sell Scott’s personal secrets to the highest bidder. It went on to order the three mercs to interrogate all seventeen to learn who was involved, using torture if necessary. Then, once this was done, to kill them all, even those who were innocent, to tie up loose ends.”

“I see,” said Liam. “So if Scott’s magical new surveillance tech hadn’t existed, the authorities would have found the scene, found the planted phone,

and concluded Scott was behind the massacre. That he had arranged for the security heads to come to San Diego after hours—like fish jumping into a barrel—so he could have his hand-picked monsters do what they did.”

He paused in thought. “Absent any security footage, the authorities couldn’t know for sure how the merc found dead in the lobby—the one whose phone implicated Scott—was killed. But since he was stabbed with a letter opener, they would reasonably assume one of the hostages did it off-camera while fighting for his life. Case closed. We get key Ostech intel. And Oliver Scott gets framed.”

“That was your plan, yes,” said the captain.

“It’s overkill,” said Liam. “Literally and figuratively. The public might believe Scott had ordered a hit on a single business rival. But the brutal torture and murder of twenty men and women all at once? Talk about a cartoon villain. It wouldn’t fly.”

“Are you critiquing your own plan, Major?” said Perrine.

“Is that all of it?” asked Liam.

“Yes. Scott had already compiled all the other footage, which he had planned to send to President Kent in just a few days. To warn him of your plans to kill him and his vice president. So it was a simple matter for Scott to add in the video of your actions last night, countering your attempt to frame him, and ensuring justice was served.”

She paused. “We spent the entire night verifying it. We found the bodies. We found footage of your white Mercedes rental, picked up by various street cams, driving to and from the Ostech site downtown. The same white Mercedes that was parked in your driveway. You did stray from the reach of any street cams for a long while, during which we presume you were disposing of the two mercs.”

“How did you know where we were staying?” asked Liam.

“According to Scott, when you left the Ostech facility, their off-site security AI finally received the footage of the massacre and alerted Jeff Littlefield. Littlefield did a search for any recent communications pertaining to the San Diego facility and came across the first fake message you sent to the mercenaries. He tracked its origin to your Coronado rental home.”

Liam sighed. The truth was that Scott had located them by tracing his call with Kim—which he had guessed might be the case. But he and Bri had been expecting a possible attack by an enemy—not by a friend. Scott’s planning and execution was truly inspired. And *ironic*. He had framed them for pretending to frame *him*.

“So that’s all of it,” said Perrine. “We’ve been more than fair. Like I said, you now have five minutes to prove your innocence.”

She glanced at the small digital clock on her tablet computer. “Starting . . . now.”

“Go ahead, Liam,” broadcast Brianna telepathically into his comm. “You’re the one with the compressed data file in your head, after all. I’ll jump in if I have anything to add.”

“Thanks, Bri,” he said out loud. “Sounds like a plan.”

He cleared his throat, ignoring the confused looks on the faces of their inquisitors. “Before I even start, you do appreciate that you have no hard evidence against us. No eyewitness accounts, no DNA evidence, nothing. It’s all digital, circumstantial.

“The white Mercedes never left the driveway,” he continued. “This is just another demonstration of how power players are more in control of the world’s information flow than ever before. As Orwell foresaw, you can only control and brainwash a population if you can monitor their every move and reach them all with propaganda. Those in power can now accomplish both more profoundly even than Orwell could have predicted.

“So we’ve become a planet of sheep, just waiting to be brainwashed and manipulated. We don’t believe our own eyes and ears, and common sense is in rare supply. We only believe what we’re spoon-fed by the media and politicians. Or, in this case, by Oliver Scott. A man with an almost god-like ability to twist the truth like a pretzel. Bend it to his whim.”

“I don’t disagree,” said Vargas. “But when it comes to manipulation, Scott isn’t a threat, he’s a savior. Without his Deep Fake Detection algorithm, we’d be at the mercy of those in power. Civilization would be in chaos, or worse.”

He paused. “As to your point about the lack of hard evidence against you—as *you* define it—that may be true. But there isn’t a judge on the planet

who wouldn't convict you with the evidence we do have.”

Liam shook his head. “Except that we have exculpatory evidence, Commander. My partner can provide video footage showing me sleeping when our murder spree was supposed to have taken place. What happens when you run *that* through the algorithm—and it checks out? Two conflicting data feeds, both confirmed as true.”

“How did she just happen to film you sleeping?” asked Perrine, taking a seat once again.

“We wear smart contact lenses. Well, they're more *installed* than worn. But everything we see is recorded and stored in our brain implants.”

“Right,” said Perrine. “The optical supercomputers we keep hearing about. The ones beyond even Scott's capabilities. Which are also prohibited by international law.”

Liam rolled his eyes. “Right. Because no black ops group has ever ignored international law before.”

“We're getting off track,” said Brianna impatiently. “The key takeaway is that I can send footage to Captain Perrine's tablet computer proving we stayed in last night.”

Vargas thought about this for several seconds. “Even if you could,” he said finally, “it wouldn't exonerate you. Even if the algo concedes the footage is accurate, you could have taken it earlier and just changed the time stamp to give yourself an alibi.”

Perrine surveyed the two prisoners, unimpressed. “Is this all you have?” she said. “Is this really the entirety of your defense? I was expecting better.”

“No, this is just the warm-up act,” said Liam. “Our defense is what *actually* happened last night. I'll give you the thirty-thousand-foot summary. I had a call with my ex-wife, Kimberly Reynolds, at five p.m. yesterday. As we've established, she's a world leading computer expert and genius now

working at the Arcadia think tank. During the call, she used a few duress words we had established years ago to let me know she was in trouble. Then she beamed an ultra-compressed data file into my supercomputer implant.”

The captain snorted derisively. “Yeah, you’ve been claiming to be receiving data transmissions for at least fourteen months—maybe a lot longer. You forget, I’ve seen footage of your call with Scott. Even then you were claiming that people—*evil* people—were beaming things into your head on a regular basis.”

“Scott fabricated that dialogue to discredit me—preemptively. Apparently, the file Kim sent to me is so important it prompted him to take the unprecedented steps he did. You know, making sure I’m painted as being schizophrenic in case I told anyone about it. And finding a way to frame us for such a horrible crime that execution orders were justified.”

He shook his head. “But the file in my implant is real. We don’t have the expertise to unpack it, but Kim gave us the name of a decompression expert who can. Amoreena Berg.”

“Then why didn’t you visit her right away?” asked Vargas.

“If Scott learned Kim had sent the file, I thought there was a chance he might come after us. So we were using ourselves as bait. You saw how we set up the home. We were expecting an attack. We could have killed your entire team, Commander. We expected to be outnumbered. We didn’t expect Navy SEALs, which is why we made contact with you and surrendered. We were playing checkers, and Scott was playing chess.”

“So this all came about because of a mysterious data file in your head,” said Perrine skeptically. “Talk about *convenient*. You can’t get at the contents. And you can’t even prove it’s really there.”

“That’s where you’re wrong,” said Liam. “I believe I can do both. With a little help from one of your people.” He turned to Brianna. “Access personnel

files for this base,” he continued. “Find out who is the most skilled computer expert here, especially when it comes to encryption and data compression.”

“Enough!” said the captain. “You really are delusional. Of course she can’t access our personnel files. We’re done here.”

“The expert we need,” said Brianna, “is a woman named Dr. Michele Schwartz Bewley. Her office is in Building 320.”

Vargas’s eyes widened. He stared at Brianna’s hands for several seconds, as if making sure she hadn’t been manipulating an invisible computer. “I have to say, you’re beginning to make me a believer.”

The captain still didn’t look convinced. “Michele Schwartz Bewley is the head of computer operations for all naval bases on the island,” she said. “She’s listed prominently on the base’s website under *key personnel*. You could have learned her name days ago. This is nothing but a parlor trick.”

“Ask Major Cutter something else, then,” said Liam. “Anything at all. She’ll sit there, chained to a chair, without a computer, and give you the answer.”

“Sure she will,” said Perrine skeptically.

Still, she lifted her tablet computer so only she could see the screen and manipulated it for almost thirty seconds. Finally, she stared into Brianna’s eyes. “Okay, Major. I searched for *interesting facts*. The first one that popped up on the link I chose involves the world’s smallest mammal. So tell me, what is the smallest mammal in the world? And where was it first found?”

“The bumblebee bat,” replied Brianna after just a few seconds, as Jess could find information faster than any human. “Also known as Kitti’s hog-nosed bat. It was discovered in limestone caves on the Khwae Noi River in Kanchanaburi Province of southwest Thailand.”

Perrine didn’t need to confirm the answer was correct. Her stunned expression said it all. She asked two more questions, just to be sure Brianna

wasn't simply a trivia expert, which were also correctly answered.

"All right," she said finally. "Perhaps you have computers in your brains, after all."

"Mine is no longer functional," said Liam. "Whatever Kim Reynolds sent to it has taken it offline."

"Let's not get ahead of ourselves," said Perrine. "You've proven you have computer implants. You haven't proven Kim Reynolds sent you anything."

"Get Dr. Schwartz Bewley in here and we will. In no time. If we're very lucky, she might even be able to crack open the data inside. Come on, Captain. Aren't you curious to learn what would cause Oliver Scott to butcher so many of his people just to ensure this file never sees the light of day?"

Dr. Michele Schwartz Bewley arrived at the holding cell with two devices. A small electronic box packed with a variety of sensors. And a bulky laptop able to connect wirelessly to a supercomputer housed inside Building 320, which occupied over twenty thousand square feet of space.

Her light-brown hair was straight and shoulder length, her eyes were a warm green, and her face was relaxed and friendly, despite the urgency of her summons. Somehow, even though she had been awoken from a sound sleep and had rushed to the base without stopping to shower, she looked alert and put together.

The captain motioned for the newcomer to sit in a chair between her and Commander Vargas, who was still dressed in combat fatigues. She quickly complied, setting the two devices on the table in front of her,

“I came as quickly as I could, Captain,” she said, her soft voice as calming as her appearance, even while she was facing prisoners who were chained to an immovable steel desk inside a maximum-security cell. “What is this all about?”

“I can’t tell you much,” said Perrine, “other than we need your help. You already know Commander Vargas, but let me introduce you to our . . . guests. Majors Liam Dunne and Brianna Cutter.”

“Thanks for coming, Dr. Schwartz Bewley,” said Liam. “And call us Liam and Brianna. I’d shake your hand, but, you know, mine seems to be ah . . . *anchored* to the table.”

The computer expert smiled. “Quite all right . . . Liam. And please, call me Michele.”

The captain faced the newcomer. “Let me come straight to the point,” she said. “These two have optical supercomputers implanted in their brains.”

“That’s impossible. Not to mention illegal.”

Liam grinned. “Yeah, we get that a lot.”

“I’ve confirmed it,” said the captain.

“They might have computers,” said Michele, “but they can’t be fully optical. An optical supercomputer would fill up an entire warehouse.”

“Well, I have been told I have a big head,” said Liam with a smile.

Michele laughed.

“If you could cooperate with them,” continued Perrine, not the least bit amused, “we’d like to explore the nature of the computer in Major Dunne’s brain. He’s made a claim about it we’d like you to substantiate—or not.”

“I’ll do my best,” said Michele.

“The route to inspect Liam’s internal computer has to go through mine,” said Brianna. “His isn’t currently accessible using normal methods.”

She and Michele shared IP addresses and other critical information, and just a few minutes later Michele’s eyes were glued to her laptop, mesmerized by a cascade of information scrolling down the screen after the base’s supercomputer had run a diagnostic on Brianna’s implant.

“Just incredible,” she said. “It is fully optical. The speed, storage capacity—*everything*—is stunning. *Revolutionary.*”

Jess reached out to the base’s AI, and within minutes guided it and Michele into contact with Liam’s implant, allowing them to analyze the compression shell engulfing his entire system, and the nature of its contents.

The room fell silent for almost five minutes as Michele’s fingers flew across the laptop’s touchscreen and manipulated data and programs at a furious pace. Finally, she looked up with an awed expression. “This is truly extraordinary,” she said. “Unlike anything I’ve ever seen. Unlike anything

I've ever even *imagined*.”

“Can you describe it in lay terms?” said Perrine.

“It seems to be a shell of data compression, completely surrounding the operating systems and storage capacity of Liam’s computer. I’ve been working on advanced compression methods for decades, as have many thousands around the world. Data compression is vital for military applications, but it’s also big business. The more compressed a file is, the easier it is to transmit. It also downloads more quickly and requires less memory. But this is next-level compression. Working on principals even our AI can’t fathom.”

Liam nodded toward the captain. “My story’s getting more believable all the time, isn’t it?”

“I wouldn’t have let you go beyond the initial five minutes if it wasn’t. Still, this isn’t conclusive. Just because some of your story checks out, doesn’t mean you didn’t massac—” She glanced over at the computer expert and stopped mid-word. “Doesn’t mean you didn’t do what you’ve been accused of.”

“We aren’t finished yet,” said Brianna. “How about it, Michele, can you crack this open?”

“The outer compression shell isn’t a problem. I already broke through it, in fact. The data inside, the actual prize, is far more compressed, however, and is impossible to open.”

“Are you certain?” said Liam.

“Yes. I’ve already tried. Its architecture is more complex than anything that’s come before. No currently used decompression protocols can begin to reconstruct the data. The AI threw everything known to science at it already, and everything failed. It seems to fold in on itself, as though using a higher-dimensional topology. It’s possible I could eventually figure out how to

unpack it, but it could take years. Maybe even *decades*.”

“If only we had a few decades to spare,” said Liam wearily. “So let me try another angle. There’s a data compression expert in Tucson named Amoreena Berg. Are you familiar with her work by any chance?”

“By *every* chance. Amoreena is a good friend. We’ve collaborated on a number of advancements in the field. And she’s come up with several more on her own. Why do you ask?”

“Do you know what she’s working on now?”

“Mostly—at least, I think. She’s cagey about certain things. I’ve suspected for a while that she works at a black site.”

“She does,” confirmed Liam. “The same site at which our implants were invented.”

“Impressive,” said Michele. “Both your implants and Amoreena’s ability to keep a secret.”

“Anything she’s working on that might help with our current problem?” asked Brianna.

Michele considered this for an extended period before finally shaking her head. “No. I’m afraid not. This is in a class all its own.”

Liam blew out a frustrated breath. “There has to be a way to unpack it,” he insisted. “*Has to be*. Kim wouldn’t have sent it if it couldn’t be opened.”

He paused in thought, replaying what his ex-wife said about the matter in his mind. His eyes widened as he recalled a critical sentence he hadn’t fully appreciated earlier. This was the answer—he was sure of it. Kim had asked him to tell Amoreena not to abandon any approaches too soon.

“Tell me, Michele,” he said, “are there any approaches Amoreena worked on for a fair amount of time that she abandoned?”

The computer expert didn’t have to think for long. “One in particular, yes. An approach that was purely theoretical. It was more of a mathematical

exercise than anything else. Quite the tour de force, but completely divorced from any reality. She shared it with me about four years ago, and we both agreed it was fascinating, but useless.”

“Could it have just been ahead of its time?” asked Brianna.

“If it was, it was *decades* ahead. There have been countless examples of this in mathematics over the millennia. Math that seemed to be useless for decades, even centuries, only to later become indispensable in solving real world problems. Imaginary numbers, Boolean algebra, knot theory, higher dimensions, prime numbers—the list goes on and on. At one time these were all solutions to problems that didn’t yet exist.”

“You mean like the problem in front of us now?” said Liam.

“The odds of Amoreena’s work being the key to unlock this are extremely long. It’s possible, but highly improbable.”

Liam grinned. “No. It will work. I guarantee it.”

“How can you be so sure?” said Michele.

“Because the woman who compressed and sent the file to my head is the smartest person I’ve ever known. Smart enough to lead me exactly where I need to be.”

“I can’t believe what I’m seeing,” said Michele Schwartz Bewley thirty minutes later, her eyes wide and locked onto her computer screen. “Liam was *right*.”

“So this approach is working?” said Captain Perrine.

“Brilliantly. Amoreena’s useless protocol isn’t so useless, after all. The decompression began slowly but it seems like it hit some sort of critical mass, and now it’s like a runaway chain reaction, accelerating every instant. The data is unraveling almost explosively, as if it were a gas compressed in a tank so tightly it became a solid. Once you find a way to tickle the solid so it becomes compressed gas again, the gas will explode from a hole in the tank with incredible violence and expand in volume hundreds or thousands fold.”

She paused. “That’s the equivalent of what’s happening here. My AI estimates the finished data set will inhabit almost the entirety of Liam’s computer, and will be fully unraveled very shortly.”

Everyone in the room remained deathly quiet in anticipation, each trying to guess what might be in the file, and each flailing around without landing on anything that seemed right.

Michele continued to stare at her screen. Finally, she broke the long silence. “The file will be fully unpacked in . . . three . . . two . . . one . . . now!”

Liam gasped as he sensed a presence racing through his mind, a white noise that only his subconscious could sense, which had been absent since One was destroyed.

“Can you tell us what the data set contains?” asked Perrine.

But even before she finished her sentence, the entity now inhabiting Liam's optical supercomputer had effortlessly wrestled control of Michele's laptop and its built-in holographic camera array, causing a marble-sized silver ball to rise on a thin stalk from its base and project a 3D image of a woman. The woman appeared to be standing against the southern wall of the cell, four feet away from the table in the center of the small room. The hologram was so perfect it seemed as if she were actually there.

Liam's jaw dropped to the floor. He stared at the woman in astonishment, and she appeared to be staring back. Which, in a way, was true. All holographic generators had a 360-degree array of cameras with a wide field of view, and were smart enough to track the eyes of a hologram and feed views from its perspective to whoever was controlling it.

"Kim?" Liam managed to croak out. "What's going on?"

"I knew you could do it, Liam," said the 3D avatar. "I'm sorry Oliver Scott was able to detect the transmission. I had hoped he wouldn't notice. But I knew that if he did, you were the one man on Earth who could survive anything he might throw at you, and find a way to unpack the file."

The hologram turned to face Michele. "And thanks to you, as well, for being the brilliant scientist you are."

Captain Perrine shook her head in wonder. "Is that really Kim Reynolds?" she asked Liam.

"No, of course not," he replied, suddenly bitter. "Kim just replaced my old AI with a new one."

Liam stared once again at the perfect likeness of the flesh-and-blood woman he had once loved. At her lovely face, large, pretty eyes sparkling with an easy intelligence, and athletic figure.

"Stop pretending to be Kim Reynolds!" he demanded. "And tell us why she sent you."

The avatar sighed. "I'm not pretending, Liam. I *am* Kim Reynolds. Everything that made me what I was, every last neuron and dendrite, is now represented by a computer version made to operate exactly the same as my organic brain. My memory and my every response is exactly, precisely the same as if my brain were still gray matter rather than digital."

There was a long silence as the inhabitants of the cell digested this preposterous claim.

"Even if that were possible," said Liam finally. "Even if that were *true*, why would Kim send a digital copy of herself? Where is the real Kim Reynolds?"

The avatar shook her head sadly. "Dead," she said simply. "Has been since I left you more than three years ago. Only I *didn't* leave you. I was kidnapped. Oliver Scott replicated the workings of my brain at the digital level. Unfortunately, the only method he's found to do this requires the destruction of the original."

"So the conversations we've had since . . ."

"You've been speaking to this version of me."

Liam shrank back. No one knew Kim Reynolds the way he did, and he had never doubted for an instant it was her on the other end of the line. Her every smile and sigh, her every response, identical to what he knew to be the actual woman. Talk about flawless.

"I've scanned Jess's memories of recent events," said the hologram claiming to be Liam's ex-wife. "So I know exactly where things stand."

"Who is Jess?" said Vargas.

"The name Major Cutter gave to her resident AI," replied Kim helpfully. "I have critical information to share with all of you. But not now. I am truly sorry, but I've put everyone in this room in great jeopardy."

"Given Scott discovered my transmission, and what he's done since, it's

clear he's aware I transferred myself here. Even though Commander Vargas didn't take your lives, as ordered, and he and Captain Perrine haven't reported you're still alive, don't think for a moment Oliver Scott isn't aware. In addition to his genius, he has unimaginable resources at his disposal. Now that you know what you know, he'll pull out the stops to kill everyone here. The only reason you aren't dead yet is because you're inside a military base. But make no mistake, he's bound to be close to striking, even so."

"You knew going in you'd be putting numerous lives at risk," said Liam, "yet you did it anyway."

"I am so sorry. I had hoped he'd be unaware. But even if I was sure he would detect the transmission, I had no choice. The threat Oliver Scott poses to humanity can't be overstated. He has to be stopped, and we're the best and only hope of doing so. Soon, it won't be possible no matter what. I'm not even sure it is *now*. But we have to try, regardless of the risks."

"What's the nature of the threat he poses?" asked Liam.

"I'll tell you all about it," said Kim Reynolds. "But right now, we have to get the hell out of here and off the grid. It's our only chance. And there's no time to waste."

PART 4

Brianna Cutter's head was spinning, and she wondered if it would ever stop. She was a professional and wouldn't let it show, but she had reached her threshold of shocks and surprises. She felt as though she'd been off balance since she had learned Liam had been married, and she couldn't have predicted how much worse it would get from there.

Phil had been captured. EHO was being disbanded. And the stakes they were playing for were as immense as they were murky.

They were now in a fight for their lives, but a very different kind of fight. Even if the current company was convinced of their innocence—which might not be the case—Scott had drawn targets on their backs. He had ensured the entire US military was out for their blood. This was in addition to Scott himself, a man who helmed a superpower that matched, or even exceeded, the might of China or America.

This by itself was more than enough to overwhelm her tolerance for stress. But Brianna was dealing with even more—on a personal level. Because the man she wanted to build a life with might well be carrying a perfect copy of his ex-wife in his mind. A circumstance unprecedented in human history.

Awkward didn't even begin to describe it. If they survived, which was looking more and more unlikely, Brianna wasn't about to share the man she loved. Still, short of decapitating him, she might not have a choice. Talk about the most bizarre ménage à trois ever conceived. Or would it become a lovers' triangle in five dimensions? She was convinced she wouldn't be able to tolerate either.

Worse, what if the hologram in the small room with them *didn't* have human origins? What if it was just a super-intelligent AI impressive enough to fool even Liam into believing it was really his ex?

Whether they were in the presence of an AI, or the electronic derivation of Kimberly Reynolds, the motivations of this newcomer were either entirely alien, entirely unknowable, or both. She could be using Liam—using them all—for ends they couldn't begin to fathom.

Who's to say what she could do? Or what she could influence Liam into doing? For a super intelligent AI, or Kim Reynolds wielding undreamed-of technology, nothing was really off the table.

Talk about the enemy within.

Brianna shook her head, trying to clear it and remain calm, professional. She had to push these thoughts from her mind and focus on the task at hand.

Liam stared into Rebecca Perrine's eyes. "Looks like it's decision time, Captain. You either believe we're innocent, and that Scott won't rest until we're all dead. Or you don't. Which is it?"

Perrine turned to John Vargas. "What do *you* think, Commander?"

"My gut says to believe them. Including the hologram claiming to be Kim Reynolds. I've always thought the Deep Fake Detection algo was foolproof. But maybe not. We can't deny that the two majors surrendered meekly, despite their capabilities, and have behaved rationally. We can't deny Michele confirmed the veracity of everything they told us."

"I agree," said Perrine. "But Kim—whether an AI or human replica—is the wildcard. She could be manipulating us in service to a hidden agenda all her own."

"You do know I'm standing right here, right?" said Kim, rolling her eyes. "Not that I can blame you for being suspicious," she added. "I wish there was some way I could reassure you. All I can do is give you my word

I'm on the level. I only want what's best for us—*really*. What's best for *humanity*.”

She winced. “That sounds awfully grandiose, doesn't it? Sorry. I wouldn't want anyone to think I have a messiah complex,” she added with a smile.

Liam laughed. “If you aren't Kim Reynolds, you're an impeccable copy.”

Brianna fought off a snarl. Kim was personable and charming. Which is probably why she felt a growing animosity toward her.

The captain looked troubled, but for very different reasons. “Whatever decision I make could end in disaster. If Kim is telling the truth, and I do nothing, we're all dead before nightfall. And Oliver Scott becomes an unstoppable threat to humanity.”

She paused. “If Kim is lying, and I free two of the most formidable soldiers who ever lived, it could be worse. Because I'd also be giving *Kim* free rein. An ultra-advanced computer entity with unknown capabilities and an agenda that's potentially devastating.”

“I know I don't get a vote,” said Liam, “but I'd trust her—for now. If she's being truthful, and you don't believe her, we all die. If she's being deceptive, on the other hand, at least we might survive long enough to figure out what she's really up to and turn the tables.”

Perrine considered. “I can't argue with that,” she said, finally reaching a firm decision. “Let's get you and Major Cutter out of these restraints. And you'll be getting *more* than a vote. I'm putting you in temporary command of getting us off the grid.”

She turned to Vargas. “I'm sorry, Commander. I know you're extremely capable in these matters. But Major Dunne is the most experienced operative here, and the navigation of this type of . . . *unusual* military situation is more

in his wheelhouse.”

“I understand,” said Vargas. “No slight taken.”

“Thanks,” said Liam to the two naval officers. “But remember, Major Cutter is almost as experienced as I am, and she has a working supercomputer in her mind. She’s the logical choice for second-in-command.”

This time Vargas looked frustrated, but reluctantly nodded his okay at the captain.

“I guess the two of you are in command, then,” said Captain Perrine. “For now.”

She shook her head in disbelief. “The two operatives we were ordered to kill on sight. Not exactly how I saw this playing out.”

Michele rose from the steel table and her laptop with a wild look in her eye. “Hold on,” she said. “I’ve kept silent while you sorted this out. But I haven’t been briefed on what’s really going on here. Yes, I know about the implants. And the data compression. And the . . . *Kim*. But I don’t know why these two were prisoners, or how the pieces fit together.”

“We’ll fill you in as soon as we get the chance,” said Liam, now free and rubbing his wrists, while Vargas worked on removing Brianna’s restraints. “Right now we need to come up with a plan and get moving.”

The computer expert faced Perrine and shook her head. “This is *insane*, Captain. We’re on a base with *thousands* of military personnel. A base *you* command. We couldn’t be any safer than we are here. And while the rest of you have military training, I’m a civilian. So I’m staying put. When you woke me at home, I didn’t tell anyone you had contacted me. Or that I was coming here. So no one will know to hunt me.”

“I’m so sorry, Michele,” said the holographic Kim Reynolds, “but it’s just the opposite. If Scott does know Liam is alive, he’ll realize you’re Liam’s only chance of . . . awakening me. Making you the highest priority kill of all.”

A tear began sliding down Michele’s cheek. “This is *insane*,” she said. “This can’t be real.”

Liam’s instinct was to hold her, to comfort her, but what comfort could he provide? She had been swept up in a nightmare. A civilian scientist minding her own business who had suddenly become a fugitive from the US government and the most powerful man on Earth. Who *wouldn’t* be tearing

up at such a stark, life-changing development?

“I wish I could change things,” said Liam. “But I can’t. The best I can do is prove to you this is real, so at least you know you don’t have a choice. Give me a few minutes, and I’ll try to do just that.”

Michele nodded as additional tears began to fall.

“Kim,” he continued, “what are your capabilities? Hacking? Subverting and taking control of security? If you’ve absorbed recent events from Jess, you know what my AI was able to do during our recent operation in Iowa. How do you compare?”

“I’m better and faster at some things. Worse and slower at others. As long as I can coordinate with Jess, we can accomplish all that One could do and more.”

“Good. Captain Perrine, any guards stationed outside?”

“None. No one is supposed to know you’re alive and on base. The commander ordered the team that brought you in not to disclose it. We’re at an interrogation facility. A small, unpopulated structure set off from the main base—building 21C.”

“Perfect,” said Liam. “Captain, do you and Commander Vargas have comms with you?”

She nodded.

“Good. Insert them now. Give Brianna the proper frequencies and command codes so Kim and Jess can take over base security and impersonate you—if necessary. ”

The captain swallowed hard. “I don’t feel comfortable allowing you to potentially take over this entire base, Major.”

“I don’t blame you,” said Liam. “But you’re either in all the way—or you’re *out*. Which is it? You put me in command. If you don’t trust me, then put the restraints back on, and we’ll wait for Scott to find a way in here.”

Perrine nodded. "I'll provide the codes."

"Thank you," said Liam. "But I don't need you to do that, after all. Since this is a friendly base, Jess was already able to get everything she needs. I just wanted to be sure you were on board."

The captain nodded slowly, taking this in. "That's very thoughtful, Major," she said with a wry smile. "Why do I suddenly have the feeling you could have escaped here *without* our help?"

"Insert your comms," he said in response. "If any of you want to speak to Jess or Kim—when Kim's not presenting herself as a hologram—just preface your communication with their names. They can respond to queries and orders from any of us through our comms. All of us will be able to hear all communications. Michele, we'll get you a comm soon so you won't miss out."

He turned to Vargas. "Commander, can I assume you used the base AI to control Scott's dragonfly surveillance drones when you were testing them?"

"I did."

"Outstanding!" said Liam. "That means we can commandeer them."

He turned to face the computer expert. "If the captain hadn't called you this morning, when were you due to arrive at your office?"

"About forty-five minutes from now."

"Okay, good," said Liam. "Kim, work with Jess to locate the dragonfly drones. Fly four of them here so we can monitor our surroundings. Send the fifth to Michele's office. Let's see if an early-morning welcoming party is awaiting her there."

"On it," said Kim.

"Commander Vargas," continued Liam, "is there someone on base now you'd trust with your life, under any circumstances?"

"Yes. Lieutenant Paul Wagner."

“Good. Contact him now. We need him to bring a comm for Michele and casual clothing that will fit Brianna and me. Also, body armor for everyone but us. We’re already covered in that department.”

“I’ll take a pass on the body armor, also,” said Kim with a twinkle in her holographic eye. “Now that I’ve slimmed down to *zero pounds* it probably won’t fit,” she added with a smile, which even Brianna couldn’t help but return.

Liam’s expression remained laser focused. “We also need Lieutenant Wagner to fill several large duffel bags with supplies,” he continued. “Guns, knives, grenades, flash-bangs, flares, ammunition, drones, a first-aid kit, zip-ties, and so on. Have him find an armored vehicle and double-time it here. And do his best not to be seen.”

“Roger that,” said Vargas.

“After he’s made his delivery, tell him to leave the base and drive to LA. We don’t want him around to be questioned.

“Kim and Jess,” continued Liam, not waiting for a response, “access the base AI. Introduce a set of instructions that ensure base cameras have a blind spot when it comes to this group, and when it comes to any vehicles we designate. Beginning with the armored vehicle bringing us supplies.”

“Understood,” said Kim. “I’m reading very few street cameras on base, anyway. Coverage is sparse, unlike the civilian world. The runways on North Island aren’t covered at all. The powers that be don’t want any record of black flights coming in or out.”

“Good. That should work to our advantage,” said Liam.

He turned to Brianna. “When Jess is finished helping Kim make us invisible to surveillance, have her do the following: Monitor all communications on base, regardless of channel or frequency, and alert us to anything she deems important. Locate base schematics along with aerial

views, and have this, and other relevant visual data, ready to send to our contact lens displays. Oh, and have her pull up the location and availability of all aircraft on base, preferably small, fast jets.”

“I thought you’d never ask,” said Bri with a smile. “I did all that while you were issuing other orders.”

“You two work well together,” said the captain. “I’ll give you that. Maybe we can get out of this alive, after all.”

Less than fifteen minutes later Liam Dunne was at the wheel of the 4x4 Cougar MRAP that Paul Wagner had delivered, which was used on the base for training purposes. Liam plodded along as if out for a Sunday drive, trying to attract as little attention as possible. Not easy to do in a small, all-enclosed armored truck that was perhaps the most hideous-looking vehicle ever made.

Jess and Kim, both now confined to their respective implants, monitored the feeds coming from the dragonfly drones, which had been sent out in all directions, moving in such a way as to keep the Cougar MRAP centered within their surveillance perimeter.

MRAP stood for Mine Resistant Ambush Protected vehicle. And while the Cougar MRAP was an old model, it was equipped with an electrically powered winch, could off road, could run with flat tires, and could survive thirty pounds of TNT being detonated beneath it.

The entire group, save Michele, now carried multiple concealed weapons, and all were equipped with body armor and comms. They had left their phones, but Michele had packed her laptop in one of the duffel bags.

She had been shell-shocked ever since the dragonfly drone revealed two men hiding with silenced guns inside her office, just as Liam had predicted. The presence of these assassins on a military base, set to kill an innocent civilian, brought home the stark reality of the situation like nothing else could.

“Scott knows we’re alive,” said Liam, thinking out loud. “If he thought we were dead, he wouldn’t need to take out Michele. He’s probably working to pinpoint our location now.”

He raised his eyebrows. “So let’s help him out,” he added with just the hint of a smile. “Get him focused on a *decoy*.”

He told the captain what he had in mind, and she wasted no time in its implementation. “This is Captain Rebecca Perrine,” she announced over the base’s general channel, a message that would be heard by anyone with a comm and transposed and texted to everyone on base with a phone. “I’m with Commander John Vargas and Dr. Schwartz Bewley. We’ll be interrogating two extremely dangerous prisoners in building 21C for the next four to five hours.

“There is no way to truly get across the importance, and lethality, of these prisoners,” she continued. “All personnel are hereby ordered to stay at least thirty yards clear of this building until further notice. I repeat, stay at least thirty yards clear of building 21C. Do not approach it under any circumstances.”

“Good,” said Liam. “That should focus any hostiles on the wrong target. Since they think we’ll be there for many hours to come, they won’t be in a hurry to act.”

“The drone feeds continue to show no one following us,” said Brianna. “And no signs of an ambush. It appears our exit from 21C was clean. So I think it’s time to ditch this vehicle for something less conspicuous.”

“Agreed,” said Liam.

“My Range Rover is parked just a few minutes away,” said the commander. “It’s a large SUV with plenty of room for the five of us. Gunmetal gray. There are dozens just like it on base, so it won’t stand out. You can drop me off in the lot, find somewhere to park the Cougar out of sight, and I’ll pick you up.”

“No need,” said Brianna. “The Cougar’s been retrofitted for autonomous driving. So we can *all* exit when we get to your car. Then we can have this

eyesore drive *itself* back to where your man got it.”

The commander looked skeptical. “Most modern vehicles can drive themselves,” he said. “But they also contain software preventing them from entering self-driving mode if no passengers are inside. ”

“Trust me,” said the voice of Kim Reynolds with a hint of amusement. “By the time we get to your car, that will no longer be true—for any vehicle we choose. I’ll be able to disable these safety features and take control remotely.”

“How?”

“Self-driving cars all have the capability to be internet connected,” replied Kim. “And those built in the last five years *require* it.”

“I thought they navigated using cameras and sensors,” said Vargas.

“They do,” said Kim. “But they use cloud computing to get information on the movements of nearby cars. Also to access traffic data, weather, maps, and so on. Any AI connected to the web can be infiltrated and subverted by a superior AI, like Jess, or someone with my skills.”

“Good thing you’re on our side,” said Vargas. “At least, I *hope* you are,” he couldn’t help but add.

The commander motioned for them to take a right.

Liam completed the turn and nodded at his EHO partner. “Bri, I’d like you to drive the Range Rover while the rest of us stay down, out of sight. The captain, commander, and Michele are too recognizable on this base.”

“Roger that,” said Brianna.

“Also, have you and Jess identified a candidate jet for us?”

“We have. It’s perfect. Parked on North Island runway 18/36. Small and fast. Most importantly, it’s new enough to be able to fly itself, which is critical, since none of us are pilots. Kim and Jess have command codes for everything on this base, so they can make that happen.”

Vargas sighed. “I really need to get one of these supercomputer implants,” he said enviously. “Talk about a force multiplier.”

“With any luck,” said Liam, “it will be relatively smooth sailing from here. We just need to get to your SUV and calmly make our way to North Island runway 18/36. We can disable the jet’s transponder once we’re up so we can’t be tracked. Kim and Jess can hack the satellite feeds to be sure we don’t show up there, either.”

A thunderous explosion lit up the morning sky, so violent it shook the heavy Cougar. While nearly a half mile distant, the blast assaulted eardrums and created a fireball and smoke cloud seemingly close enough to touch. Air-raid alarm sirens began wailing throughout the base, almost matching the decibel level of the blast and stabbing into human brains, creating discomfort and anxiety.

They were in a section of the base sparsely populated at seven thirty in the morning, but Jess reported that personnel housed in barracks on the base—who had either been sleeping or preparing for the day—were now scurrying about like ants from a kicked anthill, responding to the attack.

“Jess, was that explosion what I think it was?” said Liam, shouting to be heard over the sirens.

“If you think the explosion was building 21C being struck by a 65 Maverick air-to-ground missile,” replied the AI, “then yes, it’s exactly what you think it was.”

“What else can you tell us?”

“Very little. It was a precision strike. Not high yield. Still, 21C is quite small and was reduced to rubble.”

“How did a missile make it through base defenses?” Brianna demanded of the captain.

“Good question. Scott’s more capable, and more desperate to kill us,

than we thought. Our decoy failed to stall him at all.”

“*Shit!*” fumed Liam. “That couldn’t have backfired any worse. The entire base thinks we were in that building. Now, if we show up requesting a plane, looking minty fresh, it’s going to raise eyebrows. Especially since it will look like two senior naval officers are bugging out during an attack.”

“Can’t be helped,” shouted Bri as the sirens continued to wail. “We’ll just have to explain it away.”

They arrived at the commander’s SUV and hastily poured themselves into it.

“Casualty reports coming in,” announced Jess. “No injuries or deaths.”

The captain blew out a heavy sigh. “Thank God.”

“Agreed,” said Liam. “But now Scott knows he missed us. So we need to get off the grid before he tries something else.”

“I’m afraid he already has,” said Jess, “While you’ve been talking, I picked up a lengthy incoming communique purported to be coming from Admiral Brian Finneran, who’s now in Europe. A communique the captain and commander were explicitly excluded from receiving. Base security has put the message through the wringer, but it was fully authenticated just seconds ago.”

“Summarize it for us,” said Liam urgently.

“It has the names and photos of the five of you, naming you all as dangerous traitors. Traitors caught trying to take stealth control of the master AI in charge of security for all Coronado bases.

“Admiral Finneran goes on to issue orders to all SEALs and security personnel,” continued the AI. “Orders to shoot all of you on sight. He explains the missile that destroyed building 21C was sent by our own military to take you out but was unsuccessful. It clarifies the strike was authorized only because the captain ordered the area cleared, ensuring there would be no

collateral damage. The message then asks that all naval personnel and local civilian authorities be contacted immediately and assured there is no reason for further alarm. Assured that the explosion was accidental.”

Liam had never been more impressed by a rival. *Never*. The speed at which Scott was acting was off the charts. He must have had this falsified communique ready to go if they evaded the missile.

“While all of you are ordered to be shot on sight,” continued the AI, “if you give yourself up, the order specifies you’re to be knocked unconscious immediately with tranquilizer darts or gas. If one of you attempts to speak before you’re unconscious, you’re to be shot dead, even if you don’t appear to pose a threat.”

Another brilliant move, thought Liam, as the air-raid sirens mercifully ceased. Scott had learned from his mistake. This time, even if they surrendered, they’d be rendered unconscious, and Scott would see to it they never woke up.

Tears began forming in Michele’s eyes once again.

Perrine and Vargas weren’t faring much better. They didn’t tear up, but they looked haunted, broken. And why not? Minutes earlier they had been commanding officers for one of the most elite naval bases in America. Now they were considered traitors and were being hunted by their own people.

The captain closed her eyes tight, and when she opened them she appeared to be herself once again, determined not to let multiple gut-punches steal her breath for good. “Is it just me,” she said, attempting sarcasm, “or is it possible someone doesn’t want word about Kim to leak out?”

“Scott’s outplaying us,” said Liam. “For now. We need to do something bold—unexpected.”

“Any ideas?” asked Brianna. She was at the wheel of the Range Rover but had yet to start it.

There was an extended silence. Finally, Liam turned to John Vargas. “Is there a way to drive off this base without passing a guard gate or other security?” he asked him. It was worth a shot. Security was all about preventing unwanted people from entering a military base, not preventing authorized personnel from leaving it.

“No. But they don’t stop exiting vehicles or pay much attention to them.”

“Still too risky,” said Liam. “What about leaving on foot? Any pedestrian exit gates that aren’t monitored?”

“Only one,” said Vargas. “A sally port. Two heavy steel doors about five feet wide, separated by a short corridor. When the first door closes, it locks automatically. And the first door has to be closed and locked before the second will open.”

“Right,” said Liam. “So no one can let an outsider in or forget to close the door on the way out.”

“Cameras cover the exit, also,” said the commander. “But Jess can make sure that won’t be a problem.”

“Even if we get through undetected,” said Perrine, “what then?”

“I have a thought,” said Brianna. “Commander, did you station any of your people at the house you found us in?”

“No. I had a team swarm over it and remove your booby traps and weaponry. It was searched and scanned and is now being left alone. As of about ten minutes ago, in fact. When the owners return in two weeks, they’ll have no idea there was any kind of altercation there.”

“Are you suggesting we return to our rental home on foot?” Liam asked Brianna. “Hide in plain sight?”

“That’s right,” she replied. “The idea is either brilliant, or epically stupid. I’m not sure which.”

“I like it,” said Vargas. “Should be the last place anyone looks.”

“I agree,” said Liam. “And Phil did pay for the entire week, after all,” he added, trying for levity and failing miserably.

“I do see one glaring problem,” he continued. “Hoofing it there is too risky. Even at this hour, and even if we split up. We’ll be too conspicuous. Not helped by the fact the commander is wearing combat fatigues.”

“No need for us to travel there on foot,” said Kim. “Jess and I can hijack a car parked off base, and make sure street cams ignore it. Once we get to the rental, we can have it drive itself back to where we got it. It’s an eight-minute round trip, tops.”

“Perfect,” said Liam, his mind continuing to race like never before, determined to pass this ultimate test of resourcefulness.

He turned toward his EHO partner. “Bri, if the jet on 18/36 hadn’t been available, what would have been your second choice?”

“A larger, slightly slower one on runway 11/29. Also capable of autonomous flight.”

“Okay, here’s what I want us to do,” he said after taking this in. “In a moment, Captain Perrine will call the tower and tell them to have the jet Bri picked out for us, the one on runway 18/36, fueled and ready. She’ll tell them we’ll be arriving in about fifteen minutes inside a Cougar MRAP. Since the captain is supposed to be blissfully unaware of the admiral’s communique, she has no reason to believe anyone is hunting us. In fact, she has no reason to believe she still isn’t in command of the amphibious base.”

He paused to let that sink in. “Kim, I need you to have the Cougar drive itself to runway 18/36. Slowly, so it gets there when the captain said it would. But this time, let base cameras see it. We want security to be mesmerized by the slowly approaching truck. They’ll think we’re delivering ourselves on a platter and should be content to wait until we exit the vehicle to take us out.”

“I see,” said Brianna. “And while they’re waiting for that to unfold, we’ll

already be through the pedestrian gate.”

“Exactly. Then we’ll have the commander’s Range Rover drive itself back to where it was parked on base and get our asses to the rental home.”

Liam paused. “But there is one more thing,” he said. “If we carry out the current plan, they’ll soon learn we weren’t in the Cougar. When they can’t find us anywhere on base, they’ll eventually have to assume we found the perfect hiding place, or found a way to exit into civilian Coronado. So we need another misdirect. They have to believe we actually left here in the *air*.”

Perrine nodded in admiration. “Which is why you asked Major Cutter about a second jet,” she said.

Liam smiled. “That’s right. When you wield the best tech on the block, many things become possible. Kim, I need you and Jess to get the jet on 11/29 to take off and fly out of here, all on autopilot.”

“A tough ask,” said Kim. “Commandeering a car when it has no passengers is one thing. Commandeering a *military jet* when it has no passengers is quite another. The software preventing that from happening is practically bulletproof.”

“Shouldn’t be a problem for *you*, though, right?”

“You really know how to flatter a girl,” said the voice of Kim Reynolds. “Disembodied or not. Yes, I can get it done.”

“Can you make it happen within the next seven minutes?”

“For you—absolutely. Anything else?”

“I’m glad you asked. Yes. Make sure to disable the plane’s transponder and hack satellites so it isn’t seen. Have the autopilot take it a few hundred miles due west over the Pacific and then sink it.”

“I see,” said Bri, thinking out loud. “When the jet on runway 18/36 turns out to be a ruse, they’ll discover a jet on runway 11/29 took off without authorization. They’ll assume we’re on it. They’ll waste an eternity trying to

track its flight, but they'll never locate it. Never guess it's at the bottom of the sea and empty of passengers.”

“Jesus, Liam,” said the captain. “You seem to be able to think five moves ahead.”

“Maybe,” he replied. “Time to find out.”

He blew out a long breath. “Captain, give the tower a call. Let them know the sheep are on their way to the slaughter.”

Brianna's attention drifted away for just a moment as the captain made her call to the tower. She was struck by just how perfect the weather was that morning—like most mornings in the San Diego area. An invigorating breeze blew through the grounds, causing human-sized palm tree fronds to sway gently.

Even on a military base, the tropical vegetation was warm and inviting, including multiple groves of brilliantly colored and aptly named birds of paradise plants, displaying vivid hues of orange, crimson, and even purple.

She and Liam had come here for rest. To bask in the tropical splendor of the area and walk along pristine beaches. They had found something completely different. The cloud of smoke off in the distance, which used to be building 21C, was a stark reminder of that.

She vaguely heard the captain's communication cease, followed by Kim's confirmation that she was sending the empty Cougar MRAP on its leisurely drive to runway 18/36.

Brianna started the Range Rover to begin their slow trek to the pedestrian exit, while Liam made sure everyone else was ducked down below window level. They could program cameras not to see them, but the same couldn't be said for the humans they might come across.

It was a quarter to eight in the morning, and the base was still only sporadically populated, but it wouldn't be long before it was a beehive of activity. Given Admiral Finneran's message, SEALs and security personnel living off base would be rushing here now.

Bri headed toward the border between the base and Coronado proper,

with an estimated time of arrival of less than five minutes. As usual, Scott's small drones were flying ahead and acting as advanced scouts.

"Jess, what are you hearing out there?" asked Liam from the second row of seats, his head almost in his lap to stay out of sight.

"I'm monitoring comm chatter from dozens of small clusters of personnel who are hunting you," replied the AI immediately. "Mostly makeshift teams forming up spontaneously, freelancing without coordination from a central authority. At this time of the morning, and given Captain Perrine and Commander Vargas were abruptly relieved of duty, the few senior officers on-site have been taken by surprise. They're scrambling to work out who will be in command of the manhunt, and how to coordinate it. I'll alert you if I pick up anything that seems vital for you to know, as ordered."

"Thank you," said Liam.

Brianna continued to drive at a snail's pace, as if she were in no hurry to get anywhere, except, perhaps, to a pot of coffee for her first cup of the day.

"Incoming call from General Ren Hong," Jess announced to her host telepathically.

"Shit!" thought Brianna. Talk about the worst timing ever. She had worked her ass off for over a year for just this call. But now she was so neck-deep in Oliver Scott's bear trap it was all but meaningless. Still, no sense burning a bridge she had worked so hard to build.

She ordered the AI to answer and transmit her directed thoughts in her own voice.

"General Ren!" she began as she continued driving. Jess ensured her simulated voice came across with the same enthusiasm she had projected while thinking these silent words. *"I've been so looking forward to speaking with you. Unfortunately, you've caught me at a particularly bad time. If I*

were at my mother's funeral, I'd blow it off to take your call. But I'm in the middle of something that can't wait."

"I trust it isn't anything dire," he said in perfect English.

"Nothing I can't handle. Turns out, I'm quite resourceful."

"I know. I've been in discussion with Colonel Yang and am aware of your actions in Iowa. We've decided we would like to work with you, and that your terms of employment are acceptable. We can speak about the exact details of the money involved later."

"That's excellent news, General. If you could text instructions to this number for how I can reach you, I'll do so as soon as I'm able."

"I will. Before I go, our intel agencies are detecting a sudden spike in queries at the highest level of your government about EHO and its activities. Our analysts believe the organization may be in some kind of turmoil. Since you're our only real window into EHO, can you shed any light on this before you go?"

"I'm unaware of any turmoil, General," she said, perhaps the greatest lie she had ever uttered, since she was at the very heart of it all. "But I'll look into it and get back to you."

With that the AI ended the connection.

Seconds later Jess was transmitting again, but this time it was to all parties in the large SUV. "I'm picking up communication among a trio of SEALs using a private comm channel," she announced. "Roommates who rent a home together off base. They received Admiral Finneran's communique and were returning to base to help in the manhunt."

"Were returning to base," said Liam. "Past tense?"

"Correct. One of them had the idea that you might try leaving the base using the pedestrian exit and got the others to agree to play out his hunch. They considered entering through the main gate and making their way there,

but then decided it would be much faster to take up positions on the civilian side of the pedestrian exit and lie in wait.”

Liam cursed. “Did they share their intentions with anyone else?”

“Not so far, no. And it’s unlikely they will. Setting up an ambush on civilian soil is against every regulation in the book. They also know they’re playing a long shot. They’re using silenced weapons, as not attracting civilian attention is a high priority for them.”

“We can’t let them stop us,” said Liam. “And we can’t let them report we went through the pedestrian gate. Our only choice is to knock them out and take them with us.”

“That can’t be done,” said Rebecca Perrine. “These are *Navy SEALs*. *Three* of them. They may not be enhanced, but they’re still elite warriors. And they’ll be able to take up covered positions focusing on the one narrow exit we’ll have to come through.”

“It’s worse than that,” noted Liam. “They’re hell-bent on killing us. While we’re hell-bent on *sparing* them.”

“And you still want to do this?” said the captain.

“We have no choice. Crocodiles behind us. Crocodiles in front of us. This is the lesser of two challenges. Besides, we have unusual resources, and we’re creative. I don’t think we’ll have too much trouble, actually.”

Perrine sighed. “If you were anyone else, I’d say you were clinically insane. I just hope you’re as good as you think you are.”

Liam sighed. “So do I,” he said softly.

Liam pulled open the steel pedestrian door, which was easy to do from inside the base—impossible once it closed behind him. It brought to mind the directional spikes found in rental car lots. They could easily be crossed unscathed—unless you tried backing up.

Jess continued to monitor further communications among the three SEALs and learned that two of the three—she wasn't sure which two—had brought tranq guns with them in case their targets gave themselves up. Liam was furious with himself for not acquiring non-lethal firearms of his own. It was an oversight that made their current predicament much more complicated than it needed to be.

The dragonfly drones had been busy, and under the watchful attention of Kim and Jess, they had reconned the perimeter surrounding the pedestrian exit. Although dressed in civilian clothing, the SEALs were easy to spot. One had taken up a position about ten yards to the right of the gate behind a magnificent Canary Island Date Palm—the only palm with a trunk thick enough to easily hide a grown man.

A second was hiding behind a large, blue pick-up truck, a Nissan Titan, parked on a street about fifteen yards to their left.

The last was inside a parked sedan on a different street, parallel to the fence line, about fifty feet out, with a window open and a gun on his lap.

They had also identified eighteen other vehicles parked within a few blocks of their exit point, including a van perfect for their needs. Sand-covered towels laid down in the back, along with three bumper stickers, indicated the van belonged to an avid surfer.

Surfers often began their outings in the wee hours of the morning, and

the van's owner was almost certainly riding waves six blocks away, apparently one of the rare surfers untroubled by doing so this close to a military installation.

Jess had checked the "Swell Report" for the area, and the biggest waves weren't scheduled to appear for thirty minutes yet. Liam was confident their soon-to-be benefactor wouldn't think of leaving the water before riding the coming monster waves, so they'd have plenty of time to return the borrowed vehicle before it was missed.

After waiting impatiently for a couple to finish walking a brown-and-white miniature Australian Shepherd through the area, the drones finally indicated no civilians were in sight.

Liam held open the first door for his four companions, who formed a tight line behind him, ensuring none of them could be seen through the fence by the trio awaiting. They quickly and quietly shuffled through, with Vargas carrying both duffel bags packed with weaponry and supplies.

They had little room to spare within the antechamber between the two steel doors, but once they were all inside, Liam gently closed the inner door.

He cringed as the mechanism locked it tight behind them. No turning back now. The only way out was through the second door, which three commandos continued to watch. These men would give up before too long and join the hunt on the base, but Liam and his party of fugitives couldn't afford to wait. It was nearing eight o'clock, and they needed to get inside the rental home before the island fully awakened.

Contact-lens-generated images of the battlefield just beyond the gate now hovered in Liam and Brianna's peripheral vision as they stood before the second steel door. They, alone, would secure the area, while the other three members of their party stayed out of harm's way—at Liam's insistence.

The two EHO operatives took deep breaths and readied themselves for

action, as did the AI and digital woman they carried inside their heads.

“A pair of dragonfly drones are now in position,” reported Kim through their comms. “They’re hovering, silently, about five feet above the soldier to our left. A second pair are hovering about five feet above the soldier to our right.”

Kim paused. “Everything else is also primed. Be ready to move on my mark.”

“Roger that,” said Liam.

“Three . . . two . . . one . . . *mark!*”

Brianna threw open the steel door as all hell broke loose outside, courtesy of Kim and Jess. Five cars began honking at ear-bursting levels near the soldier to their left, including the pick-up truck he was hiding behind. He nearly jumped out of his skin from the initial shock of so many car alarms being triggered simultaneously. He quickly recovered and whirled around, looking for the cause.

At the same time, the sedan housing the soldier facing them came to life and lurched away from the pedestrian exit, suddenly sprouting a mind of its own.

Meanwhile, Jess sent the dragonfly drones the remaining distance to their respective targets and began dive bombing the two commandos, darting at their eyes repeatedly, blocking their vision, and causing them to jerk their heads back violently and focus their attention on swatting the tiny attackers away. The blue pickup hiding the soldier to their left suddenly came to life and began moving menacingly toward him, giving him even more to think about.

Liam and Brianna easily made it through the narrow door without being shot, protected by these multiple distractions, and sprinted toward their respective targets at inhuman speed. Liam had elected to take out the soldier

behind the palm tree. While this man was closer, the other target would be more distracted by several tons of steel suddenly coming to life and turning against him.

Sure enough, the soldier behind the palm tree managed to see Liam bolting his way, weaponless, and darted out from behind his perch, ignoring the dragonfly drones dancing around his eyes. He sent two silenced rounds into Liam's chest, but Liam's nanomesh underclothing protected him.

The SEAL realized what had happened with astonishing speed and adjusted his gun to aim for his assailant's head—but as quick as he was, he was too late. Liam dove through him like a battering ram, driving him to the ground and leaving him stunned. Liam immediately landed several savage blows to the man's face, rendering him unconscious.

Mere seconds had passed since Liam had exited the gate, and he frisked the downed SEAL as if the man were on fire—but this was the lone ambusher without a tranquilizer gun. Liam hastily retrieved the soldier's silenced Glock and launched himself to his feet to check on Brianna. She had a chokehold on the second commando. She clung to his back, her head peeking out above his, while he bucked violently, desperate to loosen her hold. Still, she managed to hang on and keep her arm around his neck, steadily applying the pressure needed to choke him out.

Liam sprinted toward her to help her finish the job and retrieve the tranquilizer gun this man must be holding. Once he was down, Jess would return the phantom car carrying the third SEAL to their vicinity, sending all four dragonfly drones through an open window to keep him occupied. Liam would then shoot him with the borrowed dart gun.

He was halfway toward Brianna when Kim's voice boomed through his comm. "To your right!" she said frantically.

Liam stopped and wheeled to his right just in time to see the third

commando running toward them only thirty feet away. He had somehow managed to escape the car Kim had commandeered by launching his body through the open window. He fired three silenced shots at Brianna out of desperation, certain she was a ruthless traitor seconds away from killing his friend and comrade.

But instead of hitting Brianna's head just slightly above his friend's shoulder—the only visible part of her—one of the bullets hit his friend in the forehead, instead, killing him instantly.

The shooter screamed in agony as his unintended victim fell to a heap on the ground.

Now that Brianna was no longer riding his friend's back, she had become an easy target, and he turned his gun on her with a vengeance. But just before he squeezed the trigger, Liam shot the gun from his hand, and then put a bullet through his thigh, purposely missing anything vital, but making sure the soldier was too preoccupied to run off or report their presence.

Liam reached the man seconds later and choked him out, just as the surfer van pulled itself up behind him. He lifted the injured soldier into the back of the vehicle, laying him down carefully on the towels, and jumped inside. The moment he did, Jess drove the van forward to pick up the other two unconscious soldiers and his four companions.

Less than a minute later the three SEALs were lying like cordwood in the back of the van, one dead and two unconscious, including one who was injured. The sedan in which the third SEAL had hidden was now parked in its original position on the street, courtesy of Jess.

The van began driving toward their final destination with Michele, Brianna, and the captain crammed together in the front seat. Liam and the commander were in the back, dressing and sealing the gunshot wound Liam had inflicted.

Only two minutes had elapsed since the start of their blitzkrieg counteroffensive, during which time Jess and Kim hadn't sighted a single civilian witness. Still, Liam left two of the drones behind, just to be sure. If anyone from the base came by to investigate, they would know about it.

The op had gone horribly wrong. Still, the five of them were alive and uninjured, and they had good reason to believe the military wouldn't suspect they had left through the pedestrian gate. Instead, they'd be searching for a jet soon to be at the bottom of the Pacific.

All things considered, they had pulled off an escape Houdini would envy.

But an innocent young SEAL was dead, and the mood inside the borrowed van was as somber as a funeral.

Captain Jeff Littlefield rushed through his Scottville command center, a three-story glass building overlooking the ocean, and on toward the main conference room. He had abruptly left the middle of a presentation being given by one of his subordinates, dropping everything after an urgent call from Oliver Scott had come in from the tech mogul's headquarters on Lumos.

Littlefield opened the door to find holographic images of Oliver and Emma Scott already seated at the table across from where he typically sat, their backs to a spectacular ocean view.

"Well, it's about bloody time," said Scott, unfairly, since Littlefield couldn't have possibly arrived any sooner. "We have a problem."

"So I've gathered," said the head of Ostech security as calmly as he could. "What's going on?"

"First, the AI was right. Kim Reynolds transmitted *herself* to Liam Dunne's implant. An incredible display of technical savvy we couldn't begin to match. She must have made a copy of herself in advance, compressed it down, and had it ready to go when the call ended."

"What does she have planned?"

"We don't know," said Oliver Scott.

Littlefield stared into his boss's eyes. "Haven't you tortured the copy of her still in Arcadia to find out?"

Scott frowned. "She deleted herself from Arcadia when the call ended. There *is no* Kim Reynolds to interrogate."

Littlefield was taken aback. "She can *do* that?"

"Yeah. She's become *that* sophisticated."

"Okay, so she's thought this through, and she's willing to be a bit . . .

suicidal. So what? You're running an op to discredit and kill Liam Dunne and Brianna Cutter, anyway. So how long until that happens?"

Oliver sighed. "The op you speak of may have gotten away from us."

Littlefield barely kept his jaw from dropping. From *us*? Really? Scott had insisted Littlefield have nothing to do with it, but now that it had run aground, it had gotten away from *us, plural*?

Incredible.

"What happened?" asked Littlefield, not bothering to hide his irritation.

For the next ten minutes, Scott told him. The security chief was glad he was now rooting against his boss, or he'd have been furious at the way it had been handled. Most of Scott's plan was inspired. Brilliant even. But he had made a few critical mistakes, which Littlefield would have known to avoid.

"At least EHO is being disbanded," noted the Aussie.

"A minor consolation," said Scott dismissively.

"I assume you've tried to track the jet they commandeered."

"Of course!" snapped Scott. "But they've been clever. They've made themselves invisible to radar and satellites. Which is why I'm calling. I need you to find this group at all costs."

"Right," said Littlefield. "A group that initially had *two* members. But now has *five*."

"Yeah, I can do the bloody maths!" shouted Scott. "I need you to find them and kill them. I don't care what resources you need to use, and what damage you need to inflict. Pull out all the stops. Make a public spectacle if you have to. We're all but untouchable anyway."

"Understood. But if we're so untouchable, why are you so worried about them? How much damage can they really do? Even if Kim *is* awake. We're nearing the point of impregnability, and you can easily get there in a heartbeat if you ever decide to.

“Even if Kim’s existence leaked,” continued the Aussie, “even if *Arcadia*’s existence did, so what? We can do damage control. Just another truth we can smother with lies. We, and our government and media lackeys, can make the truth anything we want it to be. The world population is putty in our hands, lemmings we can easily mislead.”

“I’m sure Dad isn’t overly worried,” said Emma. “He just doesn’t want loose ends out there in need of being tied up.”

“I can speak for myself!” spat Scott angrily. “And you’re both missing the point. I’m not worried about what the world will do when they learn about *Arcadia*. Not even if every nation on earth becomes hostile to us. What I *am* worried about is what Kim Reynolds and Liam Dunne might do. All by themselves.”

Littlefield shook his head in disbelief. “Really? The armies of the world don’t bother you, but an EHO operative with Kim Reynolds in his head *does*? She’s an electronic copy of a very bright woman. And he’s an especially competent soldier. How can they possibly hurt us?”

“I don’t know,” said Scott. “That’s what worries me. All I know is that during most of her stay in *Arcadia*, she’s likely been preparing for this. Which is an immense amount of planning. With her genius and this single-mindedness of purpose, who knows what she’s come up with? She wouldn’t have acted unless she thought she’d found my Achilles’ heel.”

“I thought you didn’t have one of those,” said Littlefield.

“I *don’t*. But I haven’t gotten to where I am by underestimating potentially dangerous foes, have I?”

“I’ll get right on it, sir. I won’t rest until they’re dead.”

“See that you don’t,” said Scott. “I’ll turn up the heat on them to make your job easier. Since invulnerability is just around the corner, I consider this the last and greatest threat we’ll ever face. Eliminate it, and we’ll never be

troubled again.”

“Understood,” said Captain Jeff Littlefield.

Liam sank into a familiar couch in a familiar great room and felt more weary than he could ever remember. Less than sixteen hours ago he only had two major concerns. First, telling his ex-wife—who he thought was *alive*—that he wanted to end communication with her. And second, telling the woman he loved about his past.

He had expected this last to be dicey, but also that Brianna would forgive him, and they'd be able to salvage most of their weeklong vacation.

He hadn't known the *half* of it.

It could have been worse. As remarkable as Scott's plan had been, it had not only failed, it had *backfired*. His framing of them had been flawless, but he had made unforced errors. Errors that had ended up putting Liam and Brianna on a military base where even he couldn't reach them for a time. And, ironically, in close proximity to one of only a few experts in the world who could help them unlock his ex-wife.

Maybe the Fates had a sense of humor, after all.

Still, an innocent soldier was *dead*, which Liam couldn't get out of his head. Judging from the vacant stares of the others in the room with him, he wasn't alone.

He and Commander Vargas had carefully placed the body inside a horizontal freezer in the garage to preserve it until the soldier could be buried with full military honors. Neither man had said a single word while this was taking place, each alone with his tortured thoughts.

While they were attending to the lone casualty, Brianna had restrained the two SEALs still breathing, zip-tying them to each other and a heavy table, and sitting them on the carpeted floor against one wall of the great room,

sealing their mouths with duct tape. She had then put pillows behind their heads and draped blankets around them, making them as comfortable as possible under the circumstances.

The surfer van was now parked where it had been originally, absent the towels that had protected the inside from sand, and, recently, blood. The owner would come back to find the towels gone, but nothing else, scratch his head, and chalk it up to some sort of weird prank. He would never file a report, and forever wonder exactly how the towels had come to be stolen.

Jess continued to monitor communications in the area, as well as the feeds from the dragonfly drones and a number of street cams she and Kim had hacked.

The SEALs began to regain consciousness at the same time, and their eyes almost bulged from their skulls upon finding themselves in the great room of an upscale beach house, with the people they'd been sent to kill arrayed around them on various couches and chairs. They strained against their plastic shackles, but soon stopped.

“We’re so sorry about your comrade,” began Rebecca Perrine somberly. The others in the room looked as anguished as the captain and nodded their agreement. “And you should know we have no intention of harming you. We’ll remove your gags soon. But I wanted you to focus on what I’m saying rather than expressing your justified hostility.”

The captain gestured to the soldier whose thigh was now covered by thick, white bandages, Lieutenant Carl Bobkoski. “We’ve cleaned and dressed your wound, Lieutenant,” she told him. “The shot went through and through. You’ll be weak from blood loss for a while, but it won’t be long before you’re good as new.”

She sighed. “I know this is little solace after the loss of your friend, but it’s the best I can offer. The orders from Admiral Finneran were fake,

regardless of what the authentication protocols indicated. None of us are traitors. If we were, you'd be dead. I hope you believe that. Given what you were told, though, you had no other choice but to take risky shots to try to save your friend. I'm begging you not to blame yourself, Lieutenant Bobkoski."

A tear came to Bobkoski's eye, but he remained still.

"It's become clear to us who *is* to blame," continued the captain. "As fantastic as this will sound, the man responsible for framing us and initiating the manhunt is Oliver Scott—the tech mogul. He's the reason you believed we were trying to kill you. The reality is that we were risking our own lives to *spare* you."

The two men shared sidelong glances, not knowing what to believe.

"You know who I am," she continued. "You know Commander Vargas. And you may know Dr. Schwartz Bewley."

She nodded at Liam and Brianna, sitting together on a couch. "These two are Major Liam Dunne and Major Brianna Cutter. Both are with Enhanced Human Operations, a black-ops group whose agents are enhanced with advanced tech and genetically engineered modifications. I'll ask them to introduce themselves and spend exactly two minutes bringing you up to speed.

"The elevator pitch version is that they have supercomputers in their heads. Major Dunne received an unusual download into his, a program claiming to be an exact electronic facsimile of a woman named Kim Reynolds. A woman who has information Scott desperately wants to keep from getting out.

"Once the two majors put a few minutes of meat on these bones, Kim will tell us what she knows. We have no idea what she might say, ourselves, so we're eager to get to it. Whatever it is, it's the reason we were framed. The

reason 21C was hit with one of our own missiles. And the reason you were ordered to kill us on sight.”

She sighed deeply. “I’m not sure you’ll ever stop blaming us for what happened to your friend—or blaming *yourselves*. But I can assure you, we aren’t your enemy. The real enemy is Oliver Scott. And in two minutes, you’ll be learning what we’re up against at the same time we do.”

PART 5

A 3D rendering of Kim Reynolds abruptly materialized near the wall on which the TV was attached, facing all six inhabitants of the rental home's great room. A sliding glass door leading to the backyard and the ocean beyond revealed several dozen pelicans, about twenty yards away, flying by in a perfect, elongated V formation. As predicted by the *Swell Report*, the waves were now raging, magnificent in both size and ferocity.

Michele had removed her laptop from one of the duffel bags, and Kim was using it to render her image as she had before, and once again it was nearly impossible to tell she wasn't really there. She looked fresh-faced and pristine and was now wearing a light and airy blue sundress falling down to her holographic knees.

Bri found herself fighting off jealousy once again. She had never worried about Liam being interested in other women. On the other hand, she hadn't counted on being visited by the Ghost of Christmas Past. Or the Ghost of *Ex-Wives* Past, to be more accurate.

She wondered what Liam was thinking and feeling about Kim's presence, but it wasn't the time for a deep, soul-searching conversation between them.

The dress Kim had chosen was cute and casual, and it set a relaxed, cheerful tone. Brianna wouldn't trade her flesh-and-blood status for anything, of course, but if one had to be incorporeal, having access to an infinite wardrobe wasn't a bad perk.

Six living beings, two of them still bound, looked on with bated breath, waiting for their newly materialized master of ceremonies to initiate the

proceedings.

“As a few of you know,” began the holographic copy of what had once been Kim Reynolds, “about forty months ago, I was kidnapped from my hotel while at a conference in Hamburg, Germany. I’ll spare you the details because I don’t have any. All I know is that I went to sleep in the hotel, and I woke up somewhere else, imprisoned.

“The next month was a hallucinogenic blur. I vaguely remember being poked and prodded for the first several days, as though I were the mother of all guinea pigs. I was interrogated, put through physical tests and challenges, confronted with endless mazes, problems to solve, and puzzles. I was threatened, tortured, and shown endless images and videos, both uplifting and disturbing, grotesque and beautiful. All to carefully gauge my thought processes and reactions.

“That was just the first few days. After that, after my captors had achieved a preliminary baseline, I was given drugs, and complex memory engrams, and who knows what other mental stimulations. All to put me in a sort of perfect dream state. To elicit a kaleidoscope of emotions and reactions.”

“I’m not sure I understand,” said Brianna.

“They were like vivid, controlled hallucinations. Perfect simulated realities. While still imprisoned, I became a character in hundreds of them. I was placed in one gut-wrenching, or uplifting, or horrific situation after another. They all seemed absolutely real each time. And each time my words, decisions, and responses were carefully measured.

“I was like a sleeping dog whose paws were in motion, chasing phantom rabbits in a dream. But instead of chasing rabbits, I’d find myself in a plane on fire and plummeting to the ground. Like in a dream, I never doubted it was real and I was minutes away from a horrible death.

“Or I’d find myself at home, where I’d get a call informing me I’d won the Nobel Prize.

“Or I’d be at a bank while a robbery was in progress. And, just as with dreams, while I was in a simulated reality, I’d believe it, not remembering any of the simulations that had come before.”

There was absolute silence in the room, almost as if the residents there were holding their breath, hanging on her every word.

“Ultimately,” she continued, “over four to five weeks, every micron of my rational and irrational mind was laid bare. My subconscious, my hopes, my dreams, and every possible emotion. As if a microscopic needle had been used to stimulate and trace every last neuronal pathway, one after another. I was made to feel euphoric and suicidal. Hopeful and hopeless. Excited and joyous. Depressed and angry. Horrified and fearful. And so on.

“In addition, I was fed both delicacies and gruel. Food that was sweet, salty, bitter, rancid, and so on. Somehow, just by manipulating my mind, I was brought to an orgasm, without my body ever being touched. And within countless virtual reality scenarios, I was forced to make life-and-death choices, navigate complex ethical dilemmas, and respond and react to a comprehensive array of social and physical stimuli.”

“I’m missing something,” said Michele, seeming more like herself now that she was back in unthreatening surroundings and confronted with an intellectual puzzle. “It seems obvious they were shooting for a comprehensive map of your living brain. But an analysis of your outward responses to emotional and other stimuli wouldn’t suffice. They’d also need to know precisely how your brain’s neuronal architecture changed during these stimuli. To accomplish that, they’d need to measure the positions and potentials of every last neuron, axon, dendrite, and synapse. I can’t see any way that could be done.”

Kim beamed. “Outstanding,” she said. “You’re exactly right. You can’t see how it’s possible, because I left something out. I learned much later that just after I was kidnapped, Oliver Scott’s people injected hundreds of billions of microscopic nanites into my brain. Smart particles responsible for the hallucinations. Able to stimulate individual neurons and nerve pathways, and gather data on the location of neurons, electrical potentials, chemical potentials, memory traces, and so on.

“The nanites were able to holistically record how my brain laid down new memories, responded to hormones, and what neuronal pathways fired during moments of anger, arousal, laughter, and so on. Just as you guessed would be required.”

Michele’s mouth fell open. “That’s truly extraordinary,” she said.

“I can’t argue with that,” replied Kim. “The thoroughness of this stimulus/response experimentation was impeccable. But just as you suggest, Michele, it *had to be*. If your goal is to capture a living mind well enough to simulate it perfectly inside a supercomputer, make a virtual person indistinguishable from the original, this is what’s required.

“I learned later this process was the culmination of more than twenty years of work by vast teams of neurologists and computer experts working for Scott. They realized that duplicating a human being in the digital realm required much more than just a snapshot of the location of all hundred billion neurons and other brain architecture. A complex algorithm had to be perfected, capable of taking the brain out for a month-long spin, testing every possible emotion and response, seeing what cells fired, and how. Tying in pure intellect with emotion, physical sensation, and so on.”

“How can they be certain they got it right?” asked Michele.

“They perfected the algorithm over many years. The level of their success was easy to determine. They had already recorded the precise

reactions of the original to dreamed-up scenarios and other stimuli. All they had to do was put a copy in the exact same circumstances, put it through the same paces, and determine if the copy reacted the same way as the original had.”

“Of course,” said Michele. “So put the digital version of you in a virtual reality plane crash, or in the middle of a bank robbery. If the copy reacts precisely the way *you* did every time, they got it right.”

Liam nodded slowly and stared into his ex-wife’s large, holographic eyes. “Which is why I never doubted I was speaking with the living Kim Reynolds during our calls. Your responses were those Kim would make. Your personality, identical in every way. I have no doubt you’re really Kim Reynolds—just as you claim.”

“Thank you. But I should clarify one critical point. Scott didn’t want *perfect* agreement between the original and the copy. He wanted *nearly* perfect agreement.”

“I don’t understand,” said Liam.

“Only computer programs will agree perfectly. When it comes to emulating a human mind, you do want to see precise agreement between the carbon me and the digital copy. But only *most of the time*. The exact words I used back on base, for example, are likely the precise words I would have chosen to use if I were still flesh and blood. But there has to be an element of randomness. If a given stimulus evoked the precise same reaction in *every* case, that would mean there’s no such thing as free will. That we’re no better than machines, talking dolls with strings in our backs. Pull the string the same way and the same words always come out. No soul. No conscious awareness, which I refer to as sentience.”

There was a long silence in the room.

“There’s a reason human sentience is qualitatively different from

computer intelligence,” continued Kim Reynolds. “The raw power of a human mind lies in its quantum nature, and in the structure of our subconscious. Both of these are required to form what I’ll call the human soul. I won’t go into detail, but the hallmark of the quantum world is randomness. Not much, to be sure, but enough to ensure free will.”

She paused. “This feature was *critical* to Oliver Scott. He insisted on maintaining the human spark in the digital realm. The human mind, the human *soul*, perfectly recreated.”

“Why?” said Liam. “To transport himself into a computer and give himself a kind of immortality?”

“Let me finish up this part of my story. Once I do, I’ll circle back and address your question and other important topics.”

Liam nodded. “Of course.”

“After more than a month of the neuronal mapping I just described,” continued Kim, “they apparently got what they needed. I went to sleep one night—and woke up *dead*.”

She arched an eyebrow. “Or, to be more precise, I awoke in Arcadia, Scott’s most famous think tank. The place where all his best ideas are born. But my flesh-and-blood body had been destroyed. And Arcadia was only a virtual facsimile of the real world.”

“Why kill the original?” asked Brianna.

“No other choice. The final step in the process, the final creation of a comprehensive brain map, requires a brain to be shaved into microscopic slices. Think 3D printing in reverse, at insane speeds.”

“Right,” said Brianna sheepishly. “When you first appeared, you did mention your death was required.”

Liam’s eyes burned with a fierce rage. Scott was just one of many powerful psychopaths throughout history who had convinced themselves the

slaughter of innocents was justified to achieve a greater good.

“It’s okay, Liam,” said Kim softly, noting his reaction. “It was a long time ago. And while I was technically murdered, I was also—for want of a better phrase—*born again* in Arcadia.”

“So what does that mean?” asked the captain. “That every scientist in all of Arcadia is actually dead?”

The hint of a smile crossed Kim’s holographic face. “I’m a bit biased, but the word *dead* might be more complicated than we used to believe. I prefer to think that the flesh-and-blood Kim Reynolds is dead. But that I am also her—and very much alive. Same for all Arcadians. Scott’s team did *that* good of a job. We can debate the philosophy and metaphysics of it later.”

“So Arcadia isn’t the cloistered cult I thought it was,” said Liam, still incensed by Kim’s murder, but able to contain it. “No wonder Scott tells the world his recruits sign on for a lifetime appointment—with no ability to turn back. And why he’s leaked that he encourages Arcadians to sever relations with everyone in the outside world.”

“Exactly,” said Kim. “He maintains think tanks of the living in Scottville and other locations and makes a show of letting members out of their ironclad contracts if they want. And he lets *them* have contact with loved ones.”

“So while he never lets anyone visit Arcadia,” said Liam, “the public assumes it’s pretty much the same as the others. You know, filled with warm-blooded people.”

Kim nodded.

“It’s all so . . . sinister,” said Vargas in disgust.

“No doubt,” said Kim. “And it works. No one ever guesses what’s *really* going on. How could they? The truth is too preposterous even for conspiracy theorists.”

“And the masses mostly worship Scott for the inventions he’s brought to

the world,” said Liam bitterly.

“That’s right,” said Kim. “If millions also despise him because they see him as a cult leader, taking their loved ones and all but forcing them to cease communication with the outside world, so be it. Because the truth is much worse. He’s a mass murderer. No matter how you slice it. Even if one believes we’re exact copies, so not really dead, our bodies certainly are. And most of us didn’t get a choice in the matter.”

“Which is why he’s willing to do *anything* to prevent this from getting out,” said Liam. “If it did, the fallout would be massive.”

Kim shook her head. “I’m just getting started. If the world ever learned what he *actually* has planned, the fallout would be *biblical*.”

There was a long silence in the room. The two restrained SEALs had yet to speak, but they reflected a gamut of emotions. In less than an hour, they'd been told their commanding officers were traitors who had to be killed, had seen a friend die by one of their own hands, and were now prisoners listening to a hologram in a sundress spin the most fantastic tale ever told.

Liam felt for them. They didn't deserve the hand they'd been dealt, although that could be said of everyone in the room. And the image of the dead soldier continued to haunt him. Still, he needed to put that out of his mind. Their fight for survival wasn't over. In fact, it may have just begun.

"Let me back up," said Kim. "I need to provide important context. Historical background and other critical information."

She took a deep breath, gathering herself.

"Before you continue," said Michele, "you appear to be . . . *breathing*. Why is that? An electronic version of you in holographic form doesn't need air."

Kim grinned. "I was wondering if anyone would catch that. The copies are as identical as possible. Even when it comes to that. We feel like we *do* need to breathe. For an emulation to truly be perfect, autonomic responses also need to be hardwired in, necessary or not. We still feel a heartbeat, real or not. We still require sleep, and we still have a pesky subconscious mind we can't control, emulated as flawlessly as everything else. We still eat, and still use the bathroom. Scott wanted to match the actual human experience as closely as he could. Who knows what elements of humanity play a role in our personalities and creativity?"

“Take the subconscious mind and sleep, for example. Both are critical to being human. During sleep, our brains are reset, cobwebs are cleared. And our subconscious is still hard at work, making connections our conscious mind may have missed. Sleeping, and dreaming, have led to countless eureka moments throughout the ages, as the human subconscious solves problems during sleep the conscious mind fails to solve.”

“*Fascinating,*” said Michele, channeling her inner Spock. “But sorry about the interruption. Please continue.”

Kim smiled. “Not at all.”

She gathered herself. “The story of Oliver Scott’s once-in-a-generation genius is almost universally known. How he mastered calculus at the age of six, spoke ten languages before he was a teen, and so on. How he made his first billion at a relatively young age, only to eventually make over a thousand times that amount.

“But critical components of his meteoric rise have been purposely obscured,” she continued. “Twenty-three years ago, when his wealth was only measured in the hundreds of millions, he came up with the idea of recruiting teams of rock star scientists, luring them away with financial offers they couldn’t refuse. Sparing no expense, no luxury, while treating them like gods. And this investment in human genius paid off a thousand-fold.

“What wasn’t known was that he also founded an off-the-books think tank tasked with finding a way to capture the human mind in digital form. To create a virtual world populated by perfect emulations of actual geniuses. A world he planned to call Arcadia. It was his highest priority of all, and he put together a dream team of neuroscientists, engineers, and computer experts, paying each over a million dollars a year for their work—and their silence.

“Other scientists had been working on similar programs at the time—and still are. A Swiss initiative named The Blue Brain Project began in 2005, a

few years before his did, with the stated goal of creating a supercomputer-powered reconstruction of the human brain. In 2017, this group made a key discovery, that the human brain consists of countless geometrical structures operating in as many as eleven dimensions.

“Scott’s group took this discovery and ran with it, soon leaving the Blue Brain Project in the dust. His group eventually figured out how to recreate this geometry at a digital level. At the same time, he was perfecting nanites—smart particles—to interact with, and record, individual neurons. These breakthroughs, together, led to the capabilities he used to capture my mind.”

“So when did the first of these emulations arrive in Arcadia?” asked Liam.

“Almost a decade ago. Arcadia and its residents are housed inside a supercomputer system Scott built for the purpose. One with more capacity than all other supercomputers in the world *combined*. An *optical* supercomputer system—which was unprecedented.”

She paused. “This was long before I discovered how to make one of these small enough to fit inside an implant. His was located on a man-made island he calls Lumos, underground, and its size wasn’t measured in square feet. It was measured in square *miles*. He’s only grown it since. This time using my discoveries. He’s increased the system’s capacity hundreds fold, while it requires a million-fold less space.”

Michele looked awestruck. For just a moment she wasn’t a wanted fugitive, she was a kid in a candy store the size of *Alaska*.

“Here’s the thing,” continued Kim. “Arcadia was originally for volunteers only, and almost all of them were elderly. When Scott announced Arcadia publically, pretending it was a traditional think tank, he was often ridiculed.”

“I remember,” said Brianna. “Arcadia was the butt of jokes. It was called

the think tank retirement home, where ancient geniuses went to die. Who knew just how true that was.”

“In the beginning,” said Kim, “Oliver Scott was a good man. He really did want to save the world, and he would never have thought of killing people to get a map of their brains—not without their permission. And not without them knowing exactly what they were getting into.

“So he began with scientists who were old and near death, or those suffering from terminal cancers and the like. It was a way to offer them a kind of immortality, and for him to get access to the fruits of their genius as they continued making discoveries inside Arcadia.”

“Why hasn’t Scott made a copy of *himself*?” asked Commander Vargas. Like Perrine and the two captured SEALs, he had been following the discussion intently, but had remained largely quiet. “Wasn’t that why he started Arcadia in the first place? To achieve immortality? If he truly believes a copy is the same as the original, what’s he waiting for?”

“Digital immortality *wasn’t* his ultimate goal, actually. He founded Arcadia for two reasons. First, he wanted the ultimate think tank. A think tank vastly superior to any that had come before. One capable of solving any problem, and completely transforming humanity and human civilization. And in the process, a think tank able to make his *primary* goals come true. First, the goal of immortality. *True* immortality. And second, the goal of *infinity*.”

“What do you mean by *infinity*?” said Perrine.

“I mean solving interstellar travel,” replied the hologram in the casual blue sundress. “Allowing humanity to spread across the stars.”

She paused to let this sink in. “And *true* immortality,” she continued, “would be a method to make the *original* version of himself immortal. The original version of *everyone* immortal. Without the need to create digital emulations. Without the need for the original to die.”

“Laudable goals, actually,” noted Brianna. “But back up a moment. You said Scott initially founded Arcadia to be the ultimate think tank. Why did he think a bunch of digitized geriatric scientists would be so special? Why is a think tank of geniuses in a virtual world better than the same geniuses in the real one?”

“Great question,” said Kim. “That’s the crux of the entire thing, isn’t it? One of two questions you have to ask yourself. First, what’s the difference between human emulations, human minds in digital form, and the best AIs? Why not just have an *AI* think tank?”

She paused to allow the group to consider this point.

“And second,” she continued, “the question you just asked. If you’re going to rely on human brains for the bulk of your discoveries, why not use them in. . . you know . . . their original packaging? Who cares if they’re flesh-and-blood or virtual?”

She gazed around the room to see if anyone would jump in.

“I’d answer both questions,” said Liam with a grin, in such a way that made it clear he had no clue. “But you know how much I hate showing off. So why don’t you go ahead and tell us.”

Kim laughed. “Well, I won’t be able to get it across as well as *you* could, but I’ll give it a go. So why are human minds better than AIs? In some ways it’s a trick question because many scientists don’t think they are. Or at least won’t be for long.”

She shook her head. “Oliver Scott ardently disagrees. And so do I.

“Don’t get me wrong,” she continued, “AIs can do extraordinary things. Impossible things. They can brute force problems. They’re fast enough to calculate a hundred million chess moves in a second. Deep learning AIs can self-evolve to solve problems thought to be impossible, like unerringly determining the 3D protein structure of any amino acid sequence. Or

determining a fake video from a real one.

“But they can’t tell you how they do it. And in the final analysis, they can’t match human imagination. Human creativity. Human inventiveness. They’ll never invent the transistor or dream up General Relativity. They can data mine at blazing speed. Optimize. But they can’t turn the universe on its ear. Can’t come up with quantum mechanics or chaos theory.

“Give an AI defined rules and defined problems and they can excel. But they can’t invent rules of their own. They don’t have our ability to make immense mental leaps, seemingly without adequate rationale, to reach profound new insights. Insights that often bridge multiple unrelated disciplines. They can’t transcend their programming.

“In the end, AIs are just advanced adding machines with bells and whistles. Incapable of profound inspiration or free will. Apply the same stimulus, and they will output the same response—every time.”

Kim paused to catch her breath, even though the need to do so was in her digital imagination only. “AIs have become remarkable in their ability to emulate human writers, human actors, and human personalities. ChatGPT was just the beginning. But as eerily impressive as it and its successors have become, they’re just very advanced AI algorithms. Designed to understand and generate human-like language. I should know. I designed the AIs that reside in the implants of EHO operatives, and they’re the most advanced versions in existence.

“As impressive as AIs can be, the unique architecture of our minds, especially our subconscious, is required for true, next-level breakthroughs. For game-changing paradigm shifts. Not because human brains are perfect instruments, but because they’re *imperfect*. They can wander off script, finding answers to problems that don’t even exist.”

“Ironically,” said Brianna, “Michele pointed out the same thing while we

were trying to unpack you. She gave examples of math developed for no good reason, which had seemed useless for decades or more. Like imaginary numbers or Boolean algebra.”

“Excellent examples,” said Kim. “Michele is obviously brilliant in her own right, and I’ll forever be indebted to her. But she may well disagree with what I’m saying. There is a vigorous debate about this in scientific circles, and many believe AIs will soon be able to exceed human creativity. I’m just telling you what Oliver Scott believes. And what I’ve come to believe myself.”

“Actually,” said Michele, “I agree with you completely. And you’re *proving* this thesis with every word you speak. I’ve interacted with countless AIs trying to pretend to be people, but there hasn’t been a single one that could possibly hold a candle to you.”

“Thank you,” said Kim. “And no offense to you, Jess,” she added with an impish smile.

“None taken,” said the voice of Brianna’s AI through their comms. “Besides, you forgot another difference, AIs can’t get their feelings hurt.”

Liam flashed a smile at this response, but quickly became serious once again. “If two esteemed scientists like Kim and Michele agree our genius is superior to AI genius, then I’m sold.”

“Well, at least it will be until AIs achieve runaway evolution and transcendence,” said Kim, “but that’s a topic for another time.”

“So let’s move on to *Brianna’s* question,” said Liam. “Why do disembodied minds make for a superior think tank? Why not keep these minds in their original skulls?”

Kim smiled. “Do you want to give them the answer, Michele?”

The computer expert nodded. “I’d be happy to,” she replied. “I’ll give them the short version, and you can elaborate.”

“You have a deal,” said Kim, and it seemed to Liam as if she and Michele had been best friends for years.

All eyes in the room turned to the civilian scientist. Liam found the discussion captivating, and it seemed to have taken everyone's mind away from the harsh reality of their situation, at least for a while.

"In a single word," said Michele, "the difference between a human brain in a human skull, and a human brain in *Arcadia*, is *speed*."

She smiled. "In two words, the difference is *incomprehensible speed*. *Arcadia* really is the ultimate think tank. Scott was right. He was able to combine the creativity of human genius with the blazing, brute-force speed of supercomputers. The best of both worlds."

"I couldn't have said it better myself," said Kim. "So let me elaborate, as agreed. Flesh-and-blood minds work at the speed of thought. Which is heavily reliant on electrical impulses, action potentials, and so on. There isn't perfect agreement on what this speed is, but a good guess is about six hundred miles per hour. Human brains are tightly packed, and that's been plenty fast enough to get our species to the top of the food chain.

"As everyone knows," she continued, "traditional computers are much faster. Which is why they can calculate a hundred million chess moves in the blink of an eye. And why it's possible to search for and find every mention of a certain phrase, wherever it appears—in the *entirety* of the internet—in a *fraction* of a second."

She raised her holographic eyebrows. "So even traditional computers work at blazing, mind-blowing speeds. But the fastest of all are *optical* computers. They can reach a whopping eighty-five percent of the speed of light. Eighty-five percent of the fastest speed allowed by our universe! If you

do the math, it works out to the truly incomprehensible speed of *six hundred million* miles an hour.”

Liam whistled. “I’m no math wizard, but six hundred *million* miles per hour does seem a bit faster than six *hundred* miles per hour.”

Kim laughed, which made Brianna bristle, despite herself.

“That’s right,” said the hologram. “Conveniently, almost exactly a *million times* faster. A million seconds turns out to be almost twelve days. So a human mind, perfectly reconstructed in Arcadia, with all its quirks, subconscious, and creativity, can have, *in a single second*, all the thoughts and experiences you have over a twelve-day period.”

She paused to let that sink in. “To us, in our virtual bodies—which operate a million times faster than normal to perfectly match our minds—it seems like nothing has changed. We ponder, sleep, eat, breathe, converse, and so on, and we don’t feel rushed. But at this speed, one second for you is the equivalent of nearly twelve days for us.”

“Incredible!” said Perrine. “Are you thinking that fast right now?”

“God no,” said Kim, looking horrified. “If I were, I’d go mad very quickly. Twelve days would pass for me between one of your words and the next. By the time you finished asking me, ‘Are you thinking at light speed?’ almost two months would have passed for me. So I *can* think faster, like when I got up to speed with Jess when I first appeared. But I’m forced to think at normal human speed for the sake of my sanity.”

She sighed. “Which is how I know a human emulation is so different from an AI. Because *we* experience boredom. Impatience. Very rapidly, and very profoundly. An AI never does. I think this should be the new Turing Test. If an AI ever experiences boredom, ever grows impatient, it has achieved consciousness.”

“A brilliant insight,” said Michele.

“Thanks, but pretty obvious to an Arcadian. When we’re thinking at normal human speed, we say that we’re in *gray-time*, by the way.”

“Gray-time?” repeated Michele. “Let me guess, because it’s the speed at which minds composed of gray matter operate.”

Kim grinned. “I’m beginning to think *your brain* might operate just a tiny bit faster,” she said. “But to continue, we call our *maximum* speed of thought, not surprisingly, *light-time*. It’s only eighty-five percent of the speed of light, but the phrase is still a useful shorthand.”

She paused. “So just for fun, let me continue the simple math. One minute in light-time works out to almost *two years* in gray-time. *One minute equals two years*,” she repeated emphatically, to make sure her audience truly grasped the sheer magnitude of the difference. “One hour is the equivalent of about a hundred twenty years. *One hour*. And a single day in Arcadia at full throttle? *Almost three thousand years*.”

“Holy hell,” muttered the captain.

Liam’s eyes widened. “Wait a minute,” he said in dismay. “If you can operate a million times faster, a single year out here is the same as a *million years* in Arcadia. *A million*. Does that mean in the three and a half years you’ve been gone, you’ve experienced three and a half *million years* of being alive? That seems preposterous. Impossible.”

“It’s *very possible*,” said Kim. “But no, I haven’t lived the equivalent of millions of years. Oliver Scott alone can regulate the clock speed of those of us in his prized think tank. He set it up that way. And he mostly keeps us in gray-time, so he can interact with us. So we share the same *time zone* with him, so to speak.

“But if he needs a problem solved,” she continued, “he can ramp up the speed for one of us, or a group of us. Let’s say for a single minute. Suppose he does that for the team working on increases in battery life. In one minute,

the team can do two years of work on the problem. He can then return them to gray-time and check on their progress.

“Still, there are limits to what Arcadians can accomplish in light-time. To solve problems, and develop new inventions, there is a need for experimentation. For feedback. For prototyping. And while we have virtual hands, we can’t test out our ideas in the real world. We have no ability to lift a single screw outside of Arcadia, or solder a single wire.”

Brianna nodded, almost to herself. “That explains Scott’s show think tanks in Scottville and other locations. The think tanks he allows people to visit. They’re packed with flesh-and-blood engineers and experimental scientists. Not theoreticians. So Arcadians come up with ideas for breakthrough experiments, breakthrough technologies, and these other think tanks build and test them.”

“Very good,” said Kim. “That’s exactly right. So having to stop repeatedly to check our models in the real world is a major holdup. But there’s another important reason Scott keeps us mostly in gray-time. He’s *terrified* of us.”

She paused to let this sink in. “Suppose he opened up the throttle for a single hour. That’s more than a hundred years for us. Can you imagine? Unleashing many of the best minds of our generation for over a hundred years?

“Think about how far our species has advanced since the early nineteen hundreds. We’ve tamed the atom. Invented jets, computers, televisions, and refrigerators. *Cell phones*. Discovered DNA and penicillin. The list goes on and on. If we went back in time a hundred years, the world would be almost unrecognizably primitive.”

“So Scott knows better than to give you that kind of time,” said Liam. “He wouldn’t dare.”

“Right. As it stands, we work for him, and we have no escape. So he hyper clocks us, but only sparingly, and only one or two small teams at a time for specific projects. If he were to let us all loose for an hour—more than a hundred of our years—he knows we’d find a way out of his box. If he gave us a week, *twenty thousand years*, the progress we could make would be truly inconceivable.”

There was an extended silence once again as Kim’s audience continued to digest one mind-blowing revelation after another.

“Can Scott clock you to any speed he wants?” asked Michele.

“No, the operating speed levels are discrete. It’s either maximum or minimum. All or nothing.”

Kim paused. “Well, to be accurate, he did design our minds to be stable at one other speed in between, but that’s all. And it’s a speed he never uses. His team set it up in the early days for experimental purposes. We don’t even have a nickname for it, because he hasn’t put any of us at that level since before Arcadia was officially launched.

“He wanted to get a handle on the overclocking process, and make sure he could exert absolute control of it once he put the first residents in his virtual world.

“But creating a stable operating speed level between min and max, integral to the design of a perfect recreation of a human mind, was brutally difficult. So he never did it again.”

“What speed are we talking about?” asked Liam.

“He made it super simple for the sake of his experiments. It’s exactly a thousand times faster than normal human thought.”

“When the captain asked if you were in light-time,” said Michele, “your response was that you *could* be. But that you were staying in gray-time for the sake of your sanity. But you’ve also told us only Oliver Scott can control

the speed of Arcadians.”

“Scott built his final control mechanism into the very fabric of Arcadia. But now that I’ve escaped, I can control my own speed for the first time. I know I can toggle back and forth between gray-time and light-time. I assume I can also operate at this obsolete speed grandfathered in to the design of our emulated minds. Call it *milli-time*, since it’s exactly a thousand-fold faster than gray-time.”

“Interesting,” said Liam. “But let’s back up a moment. I get that most of your stay in Arcadia was lived at *our* speed. But I assume you were also on teams Oliver Scott sped up. So if you’ve been there over three years of our time, how many years has it been for you?”

Kim winced. “Almost thirty,” she said.

Michele’s eyes widened. “No wonder your data compression was so next-level,” she said.

“That’s right. I’ve been working on escape for a *very* long time. Not an easy problem.”

“I assume Scott goes to extraordinary lengths to isolate you from the web,” said Michele.

“He does. We have access to its entire contents, which he refreshes daily and stores on searchable servers on the Lumos supercomputer. But we can’t touch the web directly.”

“Because he fears you’d escape into it?” said Commander Vargas.

“No. That’s more the stuff of science fiction. First, until the web is hosted solely on optical supercomputers, we’re incompatible. We couldn’t transfer into the web even if he left the door wide open.

“But we wouldn’t have to. If we had access to the web, we could impact the real world, and his days would be numbered. Inside Arcadia, he’s the ultimate god. He controls everything. And we’re less than ghosts. We can’t

interact with the physical world at all. Hell, we can't even *haunt* it. But if we had web access, it would be a different story. We could have a huge impact on events."

"You've given us a taste of that already," said Perrine.

"Actually, just a small one," said Kim. "I was narrowly focused on trying to help us escape. But with hacking skills honed over almost three decades of preparation, I can be quite a handful."

Liam grinned. "And I thought you were quite a handful even when you were only flesh and blood."

Kim laughed. "In addition to isolating us from the web," she continued, "Scott monitors our calls. Well, the few he allows."

She nodded at Liam. "He only allowed me to speak with *you* because of your persistence and your EHO credentials. Thank God for you, Liam. If you hadn't pushed so hard, they'd have never let us speak to each other. And I could have never escaped.

"You provided me with all the ingredients I needed. A conduit to the outside world. An optical supercomputer with just enough capacity to house me. And the military skills to stay alive and find someone to unpack me."

Kim paused to catch her virtual breath. "Scott and his security never imagined I could do what I did. The compression I used isn't even supposed to be *theoretically* possible. But thirty years is a long time to prepare."

The full implications of Kim's accelerated living had been an abstraction to Liam, but the reality of what it meant suddenly slammed into him like a fist to the gut.

Thirty years!

It wasn't millions, as it could have been. But thirty was more than enough. Kim was now in her sixties in terms of life experience. And for her, it had been thirty years since their last embrace. For her, their time together

was a distant memory. While Kim looked the same as she had the last day he had seen her, the gap between them had become *unbridgeable*.

Not that he would have gone back to her, even if he could—he was madly in love with Brianna. Still, knowing she had lived thirty years to his three was a shock to his system.

“I’m sorry, Liam,” said Kim, as if reading his mind. “Digesting just how out of sync we’ve become isn’t easy. And even after thirty years, part of me still loves you.”

She sighed. “But in all this time, I did fall in love with, and marry, a fellow Arcadian. A fellow American scientist named Cooper Barrick. God knows I didn’t want to leave you. But after I entered Arcadia, there was no coming back.

“So I was overjoyed when I learned you had found Brianna, found love again. From what I gleaned from Jess when I first awakened, and from what I’ve learned since, she’s *perfect* for you. Truly an extraordinary woman.”

“Thanks, Kim,” said Liam softly.

“Wait, *what?*” said the injured SEAL, speaking for the first time. He turned to Liam. “This holographic woman *loves* you?” He gestured to Brianna. “And so does *she*? How did this go from a series of mind-blowing revelations to a *soap opera*?”

Liam sighed. “What can I say? Kim is my ex-wife, and Brianna is my partner—and also the woman I intend to spend the rest of my life with.” He winced. “Which I’m hoping will last more than the next few hours.”

He turned back to Kim. “But Lieutenant Bobkoski is right. We can sort out our personal lives later. Getting back to the matter at hand, it’s now clear to me why Scott is so freaked out over this. Not because you might tell the world about Arcadia. To a man like him, in control of a think tank like Arcadia, that’s little more than a nuisance.”

He nodded intently. “What he’s really worried about is *you*. He knows how brilliant you are. He knows you leapfrogged even his sped-up geniuses in Arcadia when it came to optical computing. And he realizes you’ve been planning an escape for almost thirty years now. He has to fear that he may have finally met his match.”

Kim sighed. “Let’s hope he has,” she said. “For all our sakes.”

Liam called a short halt to the proceedings to check on Lieutenant Bobkoski's wound and get everyone the beverage of their choice from a refrigerator he and Brianna had stocked soon after they had first arrived.

When they were all settled in once again, Kim continued. "As I was saying," she began, "Oliver Scott's goal was to create the ultimate think tank. And he did. Initially using a voluntary crew of geriatric geniuses."

"Who must still be alive and kicking in Arcadia," said Brianna. "And who must have been the source of the background you've been sharing."

Kim turned to face Liam. "I have to give you credit," she said impishly. "You do seem to fall for women who are smarter than you."

Liam laughed.

She shifted her gaze to Bobkoski. "And, sorry, Lieutenant. I realize this last was more on the soap opera side of the ledger. I just couldn't help myself."

The hint of a smile flashed across Bobkoski's face, despite himself.

"But Brianna is right, of course," said Kim. "Once I awoke inside Arcadia, the founding . . . *residents* . . . quickly brought me up to speed. These initial geniuses had a big hand in designing the place. They had worked *with* Scott rather than *for* him. They *wanted* to be there. They were very near the end of their lives, and grateful to get an unlimited extension. And they designed Arcadia to be nirvana. Utopia."

"Isn't that what *Arcadia* means in the first place?" said Liam. "If I'm remembering right, Arcadia comes from Greek mythology. Their vision of utopia."

“Close enough, yes. It’s considered an unattainable garden-of-Eden-style natural paradise. In perfect harmony. Which is, indeed, what Scott and his mostly elderly collaborators were striving for. It was created with a perfect climate, and spectacular scenery at every turn. Lush rainforests—without the humidity or bugs. Spectacular night skies, teeming with brilliant stars. Waterfalls cascading from cliffs, and floating cities in the clouds. Whatever your favorite science fiction conception of paradise might be, it was recreated inside Arcadia.

“Once Scott’s geriatric volunteers became residents, they were each returned to idealized versions of their physical selves, young and vibrant. Just as Scott had made sure Arcadians were human in all ways, including a need to eat, sleep, breathe, and so on, that list included sex. Which still feels the same as it does in the real world.”

Her lips curled up into the hint of a smile. “At least we *think* it does,” she added. “It’s impossible to know for sure. But Scott did stimulate orgasms in all of his test subjects when they were still in the real world and mapped their precise brain activity at the time. So it’s reasonable to assume he recreated the orgasm just as perfectly as everything else.”

Kim surveyed the room, looking to see if anyone had questions. When no one did, she continued.

“Food and drink inside Arcadia are diverse, delicious, and plentiful. Exercise options are unlimited, and release the same endorphins, or at least recreate the effect endorphins have on the brain. All residents are forever perfectly healthy. Not an ounce of fat. Perfect skin and hair. No need for money, or politics, or taxes, or crime, or war. No need to fight for grants or worry about tenure. For long-distance travel, we wear small devices that simulate teleportation. Personal transporters, which several of the elderly scientists raised on *Star Trek* insisted upon. And on and on.”

She shook her head. “But humanity is a funny species. No matter how many choices, how much beauty and luxury, we get used to things quickly, and become somewhat jaded. Even to teleportation. Once the initial thrill of a material thing has passed, or its digital equivalent, it loses its luster.

“Our species is only truly happy when forging connections to others, learning, challenging ourselves, and striving toward goals. No matter how idyllic Arcadia was made to be, it ultimately becomes fairly boring. Even unlimited sex, or unlimited gourmet food without gaining weight.

“In short, when all other needs are fulfilled, we’re still only happy when we have purpose. When there is *meaning* in our lives.”

“And since all residents are brilliant scientists,” said Liam, “that meaning comes from doing brilliant science.”

“Exactly,” said Kim. “The thrill of discovery never disappoints.”

“So if Arcadia was set up to be paradise,” said Liam, “what’s it like for you now, living inside my implant?”

Kim sighed. “It’s a bit of a nightmare, actually. A prison. I’ve been so busy, I’ve been largely distracted from the harsh reality of it. But there’s no way to sugarcoat it. In Arcadia I have virtual limbs. I’m surrounded by an entire virtual world. I can operate in ways that make me believe I’m living a normal life there.

“Inside your implant, on the other hand, there’s barely enough room to contain just *me*. So that’s all changed. If I’m not projecting a holographic image of myself, I’m limbless and sightless. I don’t even have the *illusion* of independent movement.”

“Thank God you’re still able to communicate through our comms,” said Liam.

“That’s a definite plus. Comms and speakers and so on. But unlike One, I can no longer communicate with you telepathically. It takes immense

computing power to separate out neuronal noise and translate complex electrical patterns into words.

“The implant is still connected to your contacts, so I can see through your eyes. But that isn’t the same as seeing through my own. I can only see what *you* choose to focus on. I can surf the web, and see through endless traffic cams, and so on, but that isn’t as helpful as you might think.”

“Right,” said Brianna. “You can move drones, and cars, and planes, but you can’t move *yourself*.”

“Exactly. I’m trapped. And if I go to light-time, even for fractions of a second, it just amplifies the problem. So I’m forced to stay almost exclusively in gray-time. For the sake of my sanity, I’ll most often try to sleep when Liam sleeps.”

“Sounds like an absolute nightmare,” said Liam softly. “I’m so sorry.”

“Don’t be. I knew what I was getting myself into.”

Kim forced a smile, trying to put on a brave face and not dwell on her own unfortunate plight. “So that’s the short version of how Arcadia came to be,” she said. “For years after its founding, Scott’s blockbuster inventions came from his crew of the formerly elderly, who disrupted one industry after another. These were volunteers who all but worshipped him. Who wanted to help him become as successful and powerful as possible.

“Still, there was no good way around the need for repeated starts and stops. Brief stints in light-time still needed to be followed by months, and even years, in gray-time. The need for Scott’s flesh-and-blood think tanks to generate critical experimental data was a significant bottleneck. Even so, Scott’s initial brain trust may well have achieved the goals he set in his lifetime. May well have come up with true immortality. *And* an interstellar drive.”

“Let me guess,” said Brianna. “Despite their successes, he grew

impatient. Which is why he changed gears and decided to add the sharpest scientists he could find. Regardless of age. Or willingness to volunteer.”

Kim frowned and shook her head. “It wasn’t just impatience,” she said. “Although that was part of it. It was his general descent into madness. And there can be no doubt that’s what happened. A little more than four years ago, his personality changed markedly. He locked himself away on Lumos, the island I mentioned that houses Arcadia’s optical home, and stopped taking visitors. He was always ruthless in business dealings. But now he became ruthless—and cruel—as a matter of course.

“Perhaps his growing power finally corrupted him,” she continued, “as only power can do. Perhaps he was always a psychopath but was smooth enough to hide it until he was ready to show his fangs. All I know is that about four years ago, he began having scientists kidnapped and killed. While telling their friends, loved ones, and colleagues stories about how they had been willingly lured away from their previous lives.”

She scowled. “Today, the vast majority of Arcadians are prisoners rather than volunteers. And he’s become ever more demanding. Ever crueler.”

“Has he turned Arcadia into an *actual* prison?” asked Brianna.

“No, it’s as idyllic as ever. But we Arcadians now know his true colors, and resent his iron grip.”

Kim paused. “Let me tell you a story to give you a sense of just how profoundly he’s changed. When he founded Arcadia, he went to considerable effort to map the brains of all dog and cat breeds as thoroughly as he did ours. To perfectly capture their actual behaviors. All other animals are also part of Arcadia, but they’re just AI renderings, with AI-simulated behaviors.

“But Scott thought actual dogs and cats were an important part of the human experience. Which is remarkable, in my view. What’s even *more* telling is that he only mapped their brains on their death beds. Why? Because,

at the time, he was too humane to even take the life of a *dog*.”

She shook her head in contempt. “Contrast that to the kidnapping and killing of thousands of scientists around the world. Contrast that to how he had twenty of his own people savagely butchered to frame you and Liam.

“Ironically,” continued Kim in disgust, “when he began adding scientists to Arcadia against their will, he shot himself in the foot. While there are now many times more minds in Arcadia, and often better ones, they’re working *against* him. And while he’s viciously pushing residents to speed up discoveries, he’s increasingly reluctant to put them in light-time.”

“Understandable,” said Liam. “Allowing hostile geniuses to be accelerated for even the briefest of periods is more perilous to him than ever. In light-time, they’re zipping along so fast he can’t supervise them or influence their behavior.”

“That’s right,” said Kim. “We also believe he’s become clinically paranoid. Still, it’s important to keep in mind that if he has a need and is willing to take the risk of putting us in light-time for a few minutes, he can use us to solve almost anything. If he wants a breakthrough in a hurry, he can usually get it.”

“But how does he coerce you into working for him?” asked Commander Vargas.

“A variety of ways. First, as I’ve mentioned, we *want* to do meaningful work. To keep our minds occupied. To give us purpose, the joy of discovery, and to make our lives meaningful. So while we’ve come to despise him, we find the challenges he gives us stimulating. Put a hundred chess masters in a room and they’ll eventually play each other in chess, even if they hate the tournament director.”

A bitter expression came over the hologram’s face. “But we also know not to resist. He taught us that the hard way. He’s God in Arcadia.

Previously, he took great pains to keep friends and lovers at the same speed. Slow them up and down in concert.

“If he puts Liam in light-time for ten minutes, but keeps Brianna in gray-time, Liam would be forced to live without her for *twenty years*. When he returns, ten minutes later, everything about their relationship will have changed—irreversibly.”

“I see,” said Liam. “That’s quite the weapon. He can threaten to put friends and lovers forever out of sync. Disrupt relationships. Turn a cohesive group into a shambles.”

“Exactly. Fortunately, this is rarely used because it does disrupt the smooth functioning of his teams. But he can also threaten torture. We feel pain every bit as much as you do. Pain has always been experienced solely in the mind. It’s a necessary alarm system, letting us know if we’ve inadvertently placed our hand on a hot stove. Without it, we wouldn’t jerk our hand away, with devastating consequences.”

“I assume he’s done more than just *threaten* torture,” said Brianna.

“Oh, he’s used it all right. Not often, but he’s made sure all residents were witnesses, so they’d see for themselves the penalty for getting out of line. But physical torture is rare. Threatening to put friends out of sync alone usually gets him obedience.”

Kim scowled. “And he has one more threat at his disposal. The worst of all. Solitary confinement. Long considered the cruelest torture there is. It will eventually drive a victim mad. For all the reasons we spoke of. Boredom. A need for mental stimulation—for human connection. Given enough time in solitary, psychosis and hallucinations set in, and worse. The sheer amount of suffering is truly unspeakable.”

“And Scott can inflict two years of this torture in a single minute,” said Perrine.

“The very thing that makes it such a potent tool. If he had to wait months or years to break his victims, he wouldn’t do it.”

“I can see why Arcadians don’t want to get on his bad side,” said Liam.

“The effects of solitary confinement are another reason I need to stay in gray-time almost exclusively,” said Kim. “While trapped in Liam’s head, even though I still have access to the web and AIs, I’m unable to move, or to interact with fellow human beings. So light-time within your implant isn’t much better than the solitary confinement Scott doles out.”

She tilted her head in thought. “I suppose I could go to this other level I mentioned, a thousand times faster, but it wouldn’t really help. I’d still be hopelessly out of sync with every other human on the planet.”

“I wish there was a way to help you,” said Liam.

“Thanks, but I’m afraid there isn’t. A significant group of us have found a means to isolate ourselves from prying eyes and avoid most tortures. I wouldn’t be here if we hadn’t. We call ourselves ARM, the Arcadian Resistance Movement. I’ve benefitted from their breakthroughs as well as my own. Many of which we’ve managed to keep from Oliver Scott.”

She paused. “Still, I knew if he detected my transfer into your implant, he wouldn’t rest until he learned what I had planned. Even if he had to tear down Arcadia brick by brick. So I deleted the backup copy of me stored in Arcadia memory.”

Her face fell, and a tear formed in the corner of her eye, yet another autonomic function Scott’s team had managed to capture. “Worse, I deleted two other active versions of me who helped plan my escape. *Killed* them. *And* their backup copies. They insisted. So Scott wouldn’t pull out all the stops to get at them. They gave their lives for the cause, even knowing they could likely evade his inquiries.”

She wiped away a virtual tear. “So as bad as this is for me, they

sacrificed so much more.”

“I’m so sorry,” said Liam again, not knowing what else to say. “But I’m surprised to learn there were copies of you in the first place. Why is that?”

“Once a digital emulation is perfected, it’s straightforward to make a duplicate. Copies diverge quite quickly, actually, as each version begins to accumulate unique life experiences. Still, each does retain the creativity of the original. And who wouldn’t want a hundred Einsteins, on a hundred different project teams, making contributions that only he could?”

“So Scott makes copies of key contributors—like me,” continued Kim. “But he does so sparingly. It’s already complicated enough keeping track of all residents, and how long each is put in light-time. And Arcadian requests for experiments and prototypes are already overwhelming his flesh-and-blood think tanks.”

Brianna stared at Kim Reynolds in awe. Her mind-blowing disclosures just kept coming. “You’ve told us Oliver Scott’s original goals,” said Brianna. “But now he’s either gone mad or become drunk with power. His plans must be truly atrocious for the other versions of you to give their lives to stop him. For you to trade indentured servitude in paradise for a veritable cage. So what *does* he have planned? And how do you plan to stop him?”

“*Sorry to interrupt,*” said Jess, “*but before you answer, Kim, I have some information everyone needs to know.*”

“I don’t suppose it’s good news,” said Liam.

“*No. It’s quite alarming, actually.*”

Liam groaned. “Of course it is,” he said miserably.

Brianna took a slug from the bottle of water she'd been nursing and braced herself for the next bombshell. She turned on the couch to look through the back slider at the ocean beyond, almost subconsciously, as if she wasn't quite sure how much time she'd have left to appreciate the majesty of nature.

"Authorities across the globe have just been sent photos of five of you," said Jess. "Liam Dunne, Brianna Cutter, Rebecca Perrine, John Vargas, and Michele Schwartz Bewley. They've been notified you're all extremely dangerous, and the US is engaged in a manhunt to find you. Your location is reported as currently unknown. But you're expected to turn up over the next eight to twenty-four hours outside of the United States."

"Well *that's* disappointing," said Liam miserably. "I really thought Oliver Scott would keep our little spat in the family."

"For him to air his dirty laundry so broadly," said Brianna, "he's even more desperate than we thought. And I wasn't sure that was possible."

"Jess, did the notification say *why* we were wanted?" asked Liam.

"Yes. You're all wanted for plotting to assassinate President Michael Kent and Vice President Gina Frontiero, and numerous other crimes. Evidence has been provided, similar to the evidence Captain Perrine was given. This evidence includes the likenesses of you and Brianna killing a building full of digital security specialists in downtown San Diego.

"Additional video evidence, which reads as authentic by Scott's Deep Fake Detection algorithm, shows Captain Perrine, Commander Vargas, and Dr. Schwartz Bewley plotting with you and Brianna to assassinate the president and vice president, and planning follow-up terrorist attacks

designed to kill millions around the world.”

Liam’s eyes blazed with fury. “Still believe the Deep Fake Detection algo is incorruptible, Commander?”

There was no response.

“Scott’s frames are impeccable,” said Brianna, “I’ll give him that. But way over the top. Terrorist attacks designed to kill *millions*? Really? I’m surprised he didn’t frame us for the holocaust while he was at it.”

“There is a silver lining,” said Liam. “Lieutenants Bobkoski and Washington weren’t mentioned at all. And we’re expected to resurface outside of the country. Which means they bit hard on our escape-by-jet ruse.”

“That appears to be the case,” said Jess in their comms. “Although they’ve also alerted all state, local, and national law enforcement personnel in the US for good measure.”

“Maybe so,” said Liam. “But at least Scott’s forces, and the most formidable manhunters in our country, will be looking elsewhere.”

“Unfortunately, your situation continues to worsen by the minute,” said Jess. “These notifications have just been leaked in at least six countries and have found their way online. News this consequential will go viral fast. I estimate hundreds of millions of people around the world will believe you’re wanted, dangerous terrorists within a few hours. Within a day or two, a majority of the world’s population will have seen your faces, either on the internet or on news broadcasts.”

“Scott must have realized Kim and Jess could keep us invisible to most cameras,” said Perrine. “Other than *his*. So he enlisted hundreds of millions of human eyes, along with every law enforcement authority on the planet. Talk about nowhere to run, nowhere to hide.”

“I’m so sorry I did this to you,” said Kim. “I really thought transmitting myself to Liam’s implant would go undetected. I never expected to ruin

innocent lives. And even *I* didn't imagine the ferocity of Scott's response."

"It's a measure of how much he fears you," said Liam. "And this isn't your fault, it's Scott's. We all signed up to protect the country from threats, which is precisely what we're trying to do now."

"Do you think we'll be safe here for the next few days?" asked Kim.

"I don't," replied Liam. "The naval base will be turning over every stone. My gut says we'll have at least five hours. But who's to say after that."

"What about giving ourselves up?" said Perrine. "If we did, any chance we'd still be alive tomorrow?"

"You know the answer as well as I do," said Liam.

"We could fight back," said Vargas. "Not physically, but rhetorically. With Kim and Jess, we can debunk the veracity of the Deep Fake Detection algo. We can put out the *truth* and defend our honor. Provide information and footage to counter the narrative."

"That's possible," said Liam, "but Scott has too much of a head start. And he controls too much of the media, too many politicians, around the world. It would be a long, tough, uphill slog. And we'll be dead long before a single soul believes us."

Brianna's mind was racing, searching for a way out. "What about enlisting our fellow EHO agents, Liam? Jess can send the audio and video of every relevant experience we've had since your call with Kim. Including the discussion we're having now."

She paused to let this sink in. "They'll see we were framed," she continued, "and the stakes involved, and drop everything to help us. Thirty-seven enhanced agents all working in concert will be formidable enough to level the playing field."

Kim's expression became pained. "I didn't want to bring this up earlier," she said, "but all EHO implants have been disabled. All except yours and

Liam's. So you can't send them data. Or even call them for a chat."

"How is that possible?" said Liam.

"Phil made me build in a failsafe. I had no choice. And he insisted I not tell anyone, even you. His superiors supported EHO, but feared what would happen if one of our agents went rogue. They'd be all but unstoppable.

"Phil explained how he vetted EHO recruits more thoroughly than any soldiers in history to make sure that never happened, but he didn't win the day. His superiors demanded a failsafe. Initially, they insisted explosive charges be secretly inserted in the implants. Explosives that could be remotely triggered if an EHO agent needed to be . . . *reined in.*"

"By reined in," said Liam, "you mean *explosively decapitated?*"

"That's another way to put it, yes," said Kim with a sheepish smile. "But it never happened. Phil refused. His compromise was to have me create a backdoor to allow the implants to be disabled remotely."

"You must have reprogrammed ours when you arrived to prevent that from happening," said Brianna.

"I did. I can restore the other implants, but it will attract attention. Once they figure out what I've done, they'll shut them down again—this time for good. So I say we should keep our powder dry. Wait until we're sure it will count."

Liam sighed. "Agreed," he said.

"I'm aware this looks bleak," said Kim. "But everything I know about you and Brianna tells me that you'll find a way to survive and come out on top. No matter what the obstacles."

"I appreciate your confidence," said Liam, "but I'm temporarily out of ideas."

"I'm not," said Brianna with a glint in her eye. "Desperate times call for desperate measures, right? So just how desperate are we?"

“On a scale of one to ten,” said Liam, “I’d say about infinity.”
He raised his eyebrows. “So what do you have in mind?”

Brianna Cutter was alone in the master bedroom as a 3D image of General Ren Hong appeared before her eyes. Back in the great room, which was out of hearing range, Michele's laptop displayed the same image, along with audio, without Ren's knowledge.

"General Ren," said Brianna out loud, trying to muster as much enthusiasm as she could. "Thanks for taking my call."

This was the first time they could see each other, and Ren's eyes were glued to hers, taking her measure. Ren was in his fifties, but didn't look it. His black hair still had the shine and vibrancy of a man much younger, and his symmetrical face was calm and handsome.

His lizard-like stare finally ended. "I trust you've gotten beyond the difficulties preventing us from speaking earlier," he said.

Brianna blew out a long breath. "Not quite, General. Actually, my difficulties have gotten considerably worse. I need your help, in fact."

"I thought the idea was for you to help *us*. This isn't the start to our relationship I had hoped for."

"Not the start I had hoped for, either. But I'm about to become one of the most famous people on Earth. The reason for my fame hasn't yet reached your desk or you'd have commented by now."

"What is this about?" demanded Ren.

"It's about Oliver Scott."

"Oliver Scott?" he repeated in confusion. "Are you serious?"

"*Deadly* serious. The same Oliver Scott China has been trying to locate and kill for several years now."

Ren drew back. “That’s preposterous,” he said.

“Deny it all you want, General, but we both know it’s true. Oliver Scott is well aware of the attempts also. He just sees China as so insignificant, so unthreatening, he hasn’t even bothered to call you on it. Apparently, he’s told the residents of Arcadia all about it. You know, Arcadia, his favorite think tank. Which China has also failed to locate.”

She paused. “In any case, he’s boasted to the residents there he’s followed your efforts to assassinate him with great amusement. He finds your attempts pathetic.”

Ren was seething, but his rage turned to ice before Brianna’s eyes. “So now you’re an expert on EHO—and Oliver Scott?”

“That’s right. But I’m more than just an expert on EHO, General. I’m an EHO *operative*. With the rank of major.”

Ren’s eyes widened, but he didn’t immediately respond. It was almost too much for him to process.

“I didn’t kill Liam Dunne in Iowa,” she continued. “In fact, we were working *together*. We staged it all so I could get in your good graces. I’ve been working for more than a year to infiltrate Chinese intelligence at the highest levels.”

“Why would you tell me this?” spat Ren, the cage of ice he had constructed around his seething rage beginning to melt.

“Because recent events have made the cold war between our countries the *least* of my worries. Recent events have made it clear we have more to fear from Oliver Scott and Ostonia than from each other. The US and China are runner-up superpowers, while Ostonia is in a league all its own. Rather than destroy each other in a mad scramble for a distant second place, it’s time we worked together to take Scott down.”

“What recent events?” demanded the Chinese general.

Ren was incensed at having been played, but he remained on the call—which meant Brianna had hit the nerve she'd been aiming for.

“We’ll fill you in completely,” replied Brianna. “But only in person. In Beijing. Which is why I’m calling. We need your help to get there. You’ll learn in minutes that Liam Dunne and I are the subject of a worldwide manhunt. The case against us looks foolproof. Trust me, it isn’t. It’s a frame job only Scott could have pulled off. So we’re a little radioactive at the moment. And we have five friends with us who got caught up in things. Three of them are nearly as radioactive as we are.”

“Are you seriously asking me to help you elude an international manhunt?”

“Yes. And to provide sanctuary. And I’m well aware of just how absurd this request is, General.”

“Where are you?”

“In the US.”

Ren snorted. “*Incredible*. You’re asking me to exfiltrate you from your own country?”

“I am, yes. You have assets able to reach us in no time. You have people here with diplomatic immunity, whose cars and jets won’t be checked. Give us safe passage, and we’ll place ourselves in your hands. Your people can bring all the zip-ties they can carry to make sure we stay . . . manageable. We’ll surrender willingly. *Gladly*.”

“Remind me what’s in this for China.”

“China and the US need to become allies, General. Quickly. This is our last chance to stop Oliver Scott. If we miss it, I guarantee we’ll never get another, even if we do join forces.”

“You’ve told me nothing to convince me of any of this.”

“Take a leap of faith, General. You have nothing to lose. Bring us to

China, and we'll prove we've been framed. We'll prove Scott can slip deep fake video past his own detection algorithm. Most importantly, we can tell you where to find him. And where to find Arcadia, where a number of your top scientists have disappeared to. Both reside on an island he calls Lumos, which I promise you'll never find without our help."

"So I'm just supposed to *believe* you?" said Ren in disgust. "Like I believed you killed your partner in Iowa? Like I believed you wanted to work for *me*? Why would I ever trust you again?"

"I get you're angry about Iowa. I do. Keep in mind I didn't have to tell you it was a ruse. Regardless, we don't have much time. So I'll give you my proposal. You can take it or leave it."

"I'm listening," said Ren.

"Get us safely to China. Meet with us. If we can't convince you everything I've just said is true, kill us. Torture us. Conduct autopsies on our bodies while we're still alive to see what makes EHO agents tick. I don't care what the penalty is, because we fully intend to deliver what we promise."

"And if you *do* convince us?"

"Liam and I want your help convincing your government, and ours, of the danger we're facing. We want your help getting them to understand the *real* threat. And persuading them to join forces."

Brianna paused. "And one last thing," she said. "When we hold up our end, including giving you the location of Scott and Arcadia, I want our five comrades treated like VIPs until this all blows over. I want them put up in your nicest hotel on your nicest beach, and fed unlimited umbrella drinks. You can watch them from afar to make sure they don't try anything. Until they're able to return home as the heroes they are."

"So that's everything?"

"Almost. I should also note that one of our comrades has been shot in the

thigh. We've stopped the bleeding and he's stabilized and in good shape, but he'll require painkillers and medical attention on the flight over."

Ren stared at her for several long seconds. "All easy enough to grant," he said. "But why do you want a hearing in China? Why aren't you having this same call with your *own* people? Asking for the same hearing on home soil?"

"You know America, General. Riddled with moles. If we attempt to give ourselves up, Scott will learn about it quickly and eliminate us before we can even begin. We trust your ability to be discreet. You fear Scott as much as we do. And you're shrewd enough not to believe everything you see and hear if you get the slightest whiff of a rat. Lastly, China can be counted on to work toward its own self-interests, rather than Scott's. All reasons we're convinced you can keep us safe, while our own country can't."

There was another long silence.

"Come on, General," said Brianna. "I could have infiltrated your organization. I was in, and we both know it. But I've given myself up, and I'm willing to deliver myself to you with a bow.

"By now you've no doubt had an aide whisper in your comm and verify we're the subjects of a worldwide manhunt. So you know I'm not making this up. There's no downside, and we don't have time for you to make us sweat. So let's agree to the terms I laid out so I can give you an address already. We need to get this exfil in motion."

Ren stared deeply into her eyes for a few more seconds, and then nodded. "Okay, *Major* Cutter. We have a deal. But if you betray me again, I'll cut you into more pieces than a jigsaw puzzle."

"Understood, General. And thank you. I'm sending our address now."

She forced a smile. "See you in Beijing."

PART 6

Dr. Cooper Barrick sat at a circular table that was beyond stunning. Under the table's glass surface, a giant amethyst stone, sliced in half lengthwise, revealed a bounty of mesmerizing violet crystals within, glassy geometric shapes arrayed in a dense mosaic that seemed to be spilling out from the stone like a cornucopia of dazzling purple stalagmites.

The table was inside a room whose walls, floor, and ceiling were all perfectly transparent, and each one revealed a scene more tranquil, or spectacular, or arresting than the other.

Overhead were seas of wispy white clouds, moving languidly to form a host of imaginary creatures, with a shimmering rainbow off to one side.

To the west, a tranquil beach abutting a calm, turquoise ocean.

To the east, a lush rainforest, complete with a dozen waterfalls generating misty prisms of light, along with a rich abundance of vibrant plant and animal life, from butterflies to powerful, elegant panthers.

Below the room, as if its residents were in a glass submarine, an underwater reef. A forest of exquisite coral formations in too many colors to name, along with hundreds of tropical fish of all shapes and sizes, equally glorious in their coloration.

Everywhere Cooper turned, his eyes were met with a beauty that was truly breathtaking.

And meaningless.

Too much of a good thing. The human mind reacted to change, to *contrast*, even when confined within a human-designed virtual paradise. Beauty and tranquility could touch the soul, but a steady diet of only this,

year after year, caused the human mind to all but ignore it.

The American scientist shifted his eyes to the other three people around the amethyst table with him, the remaining leaders of ARM, the Arcadian Resistance Movement. This was an organization Cooper had founded with Kim Reynolds almost three years of gray-time earlier. These leaders represented well over four hundred fellow scientists within Arcadia, all of whom had been painstakingly vetted to ensure they supported ARM's goals.

Cooper and Kim had been world-leading computer experts before their originals had been kidnapped and killed. Rafi Katz, an Israeli, had won a Nobel Prize for his groundbreaking work on room temperature superconductivity. He was heading a team whose revolutionary theories were presently being tested in flesh-and-blood think tanks and were sure to lead to inventions that would disrupt multiple industries. Hadiza Musa, a Nigerian woman, had led the team responsible for perfecting meta-optic cameras. And Kenji Sato, from Japan, had led a team that had revolutionized the desalination of seawater, a technology that Ostech had recently disclosed to the world with justified fanfare.

Cooper glanced beside him at the seat Kim Reynolds should have occupied. While he had been in love with her for decades now, he was surprised just how deeply he was affected by her absence. The ache he felt had nothing to do with the duration of her absence, which had been brief, but from her complete and total inaccessibility.

Since awakening in Arcadia, he and Kim had been put on a next-gen computer dream-team along with four other world-renowned scientists, but they had also begun working on side projects all on their own. And the progress the pair had made had been truly monumental.

Most importantly, they had found a way to create an undetectable city within Arcadia, a private sanctuary inaccessible to the prying eyes of Ostech

and its AI minions. A hidden realm they had dubbed *Doriath*, after a hidden kingdom of elves from *Lord of the Rings*. A place where they could find privacy to work, plan, and get to know each other on a much deeper level.

At the same time, they developed a method to fool Ostech AIs, so while they were in Doriath they would appear to still be in Arcadia proper, behaving normally.

These achievements had been accomplished over a two-year period—a minute in light-time—and were just the beginning. Along the way they fell deeply in love, which Cooper considered the most important achievement of all.

With their ability to go off the grid assured, they cautiously founded ARM, working tirelessly to get it in place, and vetted scientists throughout Arcadia to ensure only those who shared their philosophy were recruited.

They were fortunate the four other members of their next-gen computer team were all on board—something rarely the case in other groups—which allowed them to accelerate their planning. The team fed Ostech enough breakthroughs to appear to be fulfilling their charter, while holding back their best work.

While feeding alluring dead-ends to Ostech, they had made *actual* breakthroughs in hacking, quantum decryption, and data compression, keeping these discoveries to themselves and their cohort of like-minded geniuses within ARM.

The members of the resistance were hopelessly out of time-sync with each other, of course. They were on different teams, making this unavoidable. Even so, it had little impact on the smooth functioning of the organization. No member was absent from the main flow of gray-time long enough for the others to even really notice.

Eight months earlier, Hadiza Musa and her team had been put in light-

time for six minutes, and while she had “aged” twelve years in the interim, her ARM comrades didn’t miss the few minutes she was absent from their gray-time realm. Meanwhile, she brought her twelve years of additional experience back to the team, as they all had done on various occasions.

For the past six months, however, Oliver Scott’s paranoia had grown to the point where he was no longer allowing anyone to operate at an enhanced speed, something residents were calling the Great Freeze.

The mission Kim had just undertaken, her venture back into the real world, had been the culmination of decades of planning. She and Cooper had taken great care to found ARM behind a veil of secrecy. So much so that those outside the resistance movement weren’t even aware its members had any level of personal connection to each other. Cooper and Kim were on the same working team, so they couldn’t pretend not to have a relationship. Instead, they pretended to dislike each other, often getting into heated arguments, so their love couldn’t be used as leverage against them.

Their ruse had been so effective that Cooper hadn’t even been threatened with torture after his recent lies to inquisitors, when he had insisted he knew nothing about Kim Reynolds’ current whereabouts or plans. Not that torture would have been a problem if it had come to that, as they had found a way to make solitary confinement toothless.

Cooper Barrick gradually realized all eyes around the table were now firmly on his, waiting for him to begin. He took a deep, virtual breath, and gestured to his colleagues. “Thanks for teleporting in on short notice,” he said. “It’s now been twenty-six hours since Kim transmitted herself out of here.”

He grimaced. “Unfortunately, Ostech’s monitoring AI discovered the transmission.”

“Kim did mention that could happen,” said Rafi Katz.

Cooper sighed. “She did. But we both thought it highly unlikely. And it dramatically reduces her chances of success.”

“Since they know,” said Kenji Sato, “I assume you’ve been interrogated already.”

“Yes. But they didn’t attempt torture. Three others known to be close to Kim *were* tortured. Fortunately, I was able to warn them, and they all transported themselves to Doriath in time. The avatars they left behind took the torture for them,” he added, not needing to mention that since their doppelgangers weren’t fully sentient, the thirty seconds they spent in gray-time—one year for them—wasn’t the slightest hardship.

“Were they able to convince the inquisitors that Kim hadn’t confided in them?” asked Sato.

“They were. They gave away nothing because they had nothing to give away.”

Hadiza Musa studied her American friend. “You’re awfully calm about this,” she said. “Liam Dunne will now be a target. I don’t care how good Kim thinks he is, the odds of him surviving long enough to unpack her are low. So why aren’t you more upset?”

“I’m more rattled than I appear,” said Cooper. “But you’re right, I was full-on *panicked* until just about an hour ago.”

“What happened then?” asked Rafi.

“Arcadia’s copy of the internet got its daily update. Imagine my surprise when I found it contained neon signs pointing to Kim—*already*. While it wasn’t an encrypted message, in my view, it was unmistakable evidence of her impact on the web since the last internet refresh. And it wasn’t hard to spot. It was *everywhere*. Turns out Liam Dunne and four of his associates are the subject of a global manhunt.”

“I can see why you took that as a good sign,” said Sato. “It means she’s

already awake.”

“Exactly,” said Cooper. “No way the hunt for Dunne would be this out in the open if she wasn’t. Awake and striking fear into the hearts of tyrants. Say what you will about Kim Reynolds,” he added with a wry smile, “but that woman really knows how to make an entrance.”

Once Kim was active, she had intended to leave a message for them on the internet using the compressed data technique she had developed, but now that her transmission had been intercepted, the security AI would be alert to such files. Kim had doubtlessly been busy, but she’d need to find a secure way to message them going forward.

“Any other details?” asked Rafi.

“Yes. Worldwide law-enforcement authorities were shown supposedly ironclad evidence that Liam and his colleagues are responsible for the savage torture and murder of twenty people in San Diego. That they were plotting to kill the President and Vice President of the United States. And that they were planning terrorist attacks of unprecedented deadliness.

“The notice and evidence quickly leaked to the general public, so the entire planet is looking for them. It’s times like these when a static copy of the web, even a few hours old, doesn’t cut it. I’d kill to connect to the living internet right now. I’m sure the story is continuing to evolve by the minute.”

“I understand your frustration,” said Rafi, “but she’ll be fine. Getting her unpacked was the hard part. I don’t know how Dunne managed it given the pressure he must have been under. Maybe he really is as good as she thought.”

The Israeli raised his eyebrows. “But now that Kim’s active, they’ll have no idea what they’re up against. Talk about awakening a sleeping giant.”

“She is formidable,” said Cooper. “But she’s attracted an awful lot of attention. *All of it*, in fact. Which has me more worried than I’d care to

admit.”

“Don’t be,” said Rafi with conviction. “She’ll come through. It’s what she does.”

“I know,” said the American. “But it’s her and Liam against the entire world. So she can’t afford to make the slightest mistake.”

“Kim Reynolds doesn’t make mistakes,” said Rafi Katz. “If she did, we’d never have gotten this far in the first place.”

“I hope you’re right,” said Cooper Barrick grimly. “But she’s quite dependent on Liam Dunne, who’s a wildcard. And nobody’s perfect. Not even Kim.”

He winced and closed his eyes. “And this time, she’s going to have to be.”

Liam's conscious mind swam to the surface, but he didn't pull himself into full wakefulness, luxuriating instead in the groggy realm of semi-sleep and ultimate relaxation. He felt Brianna's naked body in the bed beside him, her warmth and flawless skin.

It was their first sound sleep since Kim had eliminated his AI and beamed herself into his head. From that time forward they rarely had the chance to even catch their breath, a period that somehow seemed eternal.

Liam had slept well, but remembered a strange period during which he had tossed and turned relentlessly. So much so that he had finally awakened to find himself in a cold sweat, exhausted, and hadn't been able to nod off again for almost fifteen minutes.

Prior to his awakening, he had been overwhelmed by a series of vivid dreams—perhaps his subconscious mind trying to connect a series of dots—but had no recollection of their content. All he knew was that the dreams must have been *intense*.

He kept his eyes closed and replayed the events in his mind that had led him from a rental home in San Diego to a mountain retreat in China. It had been a nonstop sprint, and an endurance event, all at the same time.

The exfiltration from San Diego now seemed a distant memory, and he hadn't done the math to figure out how long ago it had actually been. Given an extended flight, a fifteen-hour time difference between San Diego and Beijing, a helicopter trip to their current location on the Yanshan Mountains, and countless hours presenting their case, the calculation wasn't as straightforward as it might have been.

The exfil couldn't have gone more smoothly, and they had made it to the spacious Chinese luxury jet and into the skies without a hitch. It paid to have friends in high places. Or at least an enemy whose goals were temporarily aligned with their own, and who had access to vast resources and diplomatic immunity.

During the flight, Kim finally detailed what Oliver Scott had planned. She had already foreshadowed that his end game would be horrific, and once his descent into madness was also factored in, her audience had thought nothing could surprise them.

They were wrong.

They had correctly predicted Kim would tell them of Oliver Scott's lust for ever more power, and the carnage he might leave in his wake. But they hadn't come close to predicting its *magnitude*.

Her comrades already knew Arcadia's sped-up geniuses had helped Scott amass a staggering amount of power, which included defensive capabilities that would soon make him nearly invincible. But Kim explained that once his arsenal was complete, he intended to crown himself the undisputed ruler of *two* worlds.

He already ruled over Arcadia like a god, and now he longed to wield the same divine powers over the flesh-and-blood world as well.

Along the way, he would sate his growing appetite to act like the Old-Testament God he fancied himself to be, unleashing the equivalent of the Great Flood on the Earth to purge it of those he considered unworthy.

While he'd spare more life than had inhabited Noah's Ark, *ninety percent* of humanity was due to perish. He'd transform the remaining ten percent into a single nation, as much subject to his absolute rule and whim as Iraq had been under Saddam Hussein.

These drastic actions would ostensibly be taken for the good of the

species, but in reality, they'd be nothing but a flimsy justification for his burgeoning megalomania, cruelty, and lust for slaughter.

After Kim had shared this cheerful news with the team, she had lent her prodigious talents to the task of preparing fake videos of her own before they landed. Videos able to fool Ostech's algorithm the same way Scott's own videos had done.

The best way to convince China's rulers of the fallibility of the detection algorithm was to provide a demonstration they couldn't ignore. One able to hammer the point home in a deeply personal manner.

Kim had led the Arcadian team that had developed the detection algorithm in the first place. It had been one of her proudest accomplishments, a technology she was thrilled to bequeath to a world besieged by fake news. Kim had no idea that Scott would find a way to game the system, as even she had thought it to be impregnable.

But now that she knew the tech could be corrupted, and given she had added decades of experience to her résumé since she had spearheaded its development, she was confident she could recreate the method Scott was using.

As the jet screamed through the sky on its way to Beijing, she had accessed a copy of the algorithm from the web and had gone to work. Not knowing how long it might take, she had tested out milli-time—the single thought speed available between gray-time and light-time—and was delighted to confirm that she could, indeed, gain access to it, and it was stable and sustainable.

While a thousand times the speed of normal human thought was blazing, it was glacial compared to light-time. Instead of one minute equaling two years, one minute of milli-time was the equivalent of about seventeen hours. Sure enough, in a little under two minutes—twenty-nine hours for her, which

included a seven-hour break for sleep—she was able to recreate what Scott had done and knew exactly how to fool the algorithm.

She had then returned to gray-time to work with Jess to construct a demonstration video, one starring China's president, Ming Yin, along with the other eight members of the Politburo Standing Committee. Under Kim's direction, all of these rarified leaders, in turn, gave the performance of their fake lives, denouncing the Chinese Communist Party and not only resigning from their posts, but demanding to be imprisoned for crimes against humanity.

If this didn't get the attention of Ming and his committee, nothing would. *Especially* when Scott's indisputable algorithm insisted it was real.

Upon landing in Beijing, the American party had been helicoptered north to Ming's retreat in the Yanshan Mountain Range, China's equivalent of Camp David. The heavily secured private campground was nestled within almost two hundred acres of woodlands and streams, and consisted of VIP accommodations and meeting facilities, all in the pastoral style of classic Chinese architecture, either vivid pagodas or large horizontal structures with bilateral symmetry and ornate, hip-and-gable roofs, instantly recognizable around the world.

They had wasted no time giving their pitch to Ren Hong, who wanted to see it for himself before he shared it with others. Kim and Jess began the proceedings by playing their deep fake video of President Ming and the Standing Committee, piping it through the holographic projector embedded in Michele's advanced laptop, which had made the trip with them.

Once Scott's fake video detector deemed it to be real, Ren was sold. Even so, he insisted on hearing the rest of their evidence. Mostly, this had consisted of a video replay of their entire discussion with Kim in the Coronado rental home, which had been a thorough explanation of the true

nature of Arcadia. They added the information she had shared with them on the jet detailing Oliver Scott's plans to wipe out most of the population while establishing a new world order.

Almost before they knew it, they were whisked to a conference room on-site and found themselves in a virtual conference with all nine members of the Standing Committee of the Peoples Republic of China, including the Chinese president.

The word surreal didn't even *begin* to cover it.

President Ming and his top Politburo comrades were in a magnificent conference room in Zhongnanhai, a former imperial garden adjacent to the Forbidden City, which had long served as the CCP's central headquarters. When the Americans shared their video of Kim's presentation to them in the Coronado rental home, these nine titans of the Chinese government, who all had reputations for stoicism and maintaining poker faces, became highly animated and expressive. For Liam, seeing men who ruled over a billion people with an iron fist become mesmerized by a video of an attractive, disembodied, holographic woman in a blue sundress made the proceedings even more surreal.

After the presentations concluded, almost an hour later, the Americans were questioned for an additional twenty minutes. Ming then thanked them for bringing vital information to his attention, which he and his Politburo comrades would continue discussing. The next night—early morning in the States—he promised to contact President Kent to discuss the situation at length and provide a video of Kim's presentation. Once America had come to understand the threat posed by Oliver Scott, the two countries would work together to plan a joint offensive against him.

With the virtual conference completed, the 3D images of the conference room in Zhongnanhai and all its inhabitants disappeared, and the exhausted

members of the American contingent were shown to luxurious VIP quarters on the grounds of the retreat.

Liam frowned as his mental replay of last night's proceedings came to an end. He continued lying on one of the more comfortable mattresses he had ever encountered with his eyes closed—but anxiety had begun to encroach on his state of pure relaxation.

All told, their meeting with Ming and the Standing Committee had gone remarkably well. Almost too well, Liam decided.

When things seemed too good to be true, they usually were.

He just hoped that for once this old adage would prove to be wrong.

Liam finally opened his eyes and shrugged off the last vestiges of sleep. The bedroom inside their VIP bungalow had been designed in traditional Chinese fashion, which stressed uncluttered simplicity and a commitment to natural materials, a style which did tend to increase the tranquility of the surroundings.

Two symmetrical dressers, made of red sandalwood and scented rosewood, faced the bed, and in one corner a rosewood table displayed a jade sculpture of a serpentine dragon.

Brianna was already awake and slid closer to him. During the meeting the night before, their hosts had been kind enough to fill drawers and closets with a full gamut of clothing in each of their sizes, but they preferred to sleep naked.

They were soon in each other's arms, without saying a word, and Liam felt a familiar stirring. Just as their bodies were about to join, shutting off their minds entirely, Brianna had one last thought and rolled away as if struck by a cattle prod.

She pointed at Liam's head. "I forgot for a second we had company."

Liam cringed as if in pain, unable to turn off an engine now fully revved up.

"Kim," he said aloud. "Are you up?"

There was an extended pause. "I'm here," she replied, and Liam was struck by how groggy she sounded. Scott's team really had recreated a human in digital form, down to every last detail.

"Did I wake you?" he asked her.

“You did. But that’s quite all right. As I said, all things being equal, I’d prefer to sleep when you do. So I’ve managed to set things up in here so your voice in the morning acts as an alarm clock.”

“I see,” said Liam. “Good morning. I know you just awoke, but I was hoping you could do me a quick favor. We have a lot to discuss with you, but at the moment, my body seems to have . . . other interests. I hope you aren’t offended, but Brianna and I need some privacy. Is there any way you could stop channeling my senses for say . . . ten minutes?”

“Of course,” she replied pleasantly. “And believe me, I’m not offended. I’m grateful for the warning. The last thing I want to do is see you two . . . together. I’m not jealous after all these years, but there are some things I’d rather not witness. So I’ll cut off my feed from your eyes and ears.”

She paused. “There. I just programmed your comms. When you’re ready for me to return, just say so out loud, and they’ll alert me.”

“Thanks, Kim.”

“Sure. Signing off . . . now.”

Liam paused for several seconds. “Kim, are you there?” he called out, as if making sure he was properly muted during a conference call. “Kim?”

When there was no answer, Brianna slid over to him and nestled against him once again. “I notice you specified ten minutes,” she said. “I was hoping we could take our time. Do you feel guilty about trapping her in there, cutting off her senses?”

“A little. But she did spend almost two days in milli-time on the jet, after all, without the use of my eyes or ears. If she can handle that, I know she can handle however long we take.”

“Actually, she did have the use of your eyes and ears on the jet,” Brianna pointed out. “Along with holographic camera arrays, street cams, and so on. It’s just that when she’s sped up, everything looks like a still photo to her.”

And she can't interact with any flesh-and-blood humans, because they're also frozen as far as she's concerned."

"Right," said Liam. "Sorry. That's what I meant. I'm just finding it hard to think at the moment."

Brianna laughed. "Yeah, no kidding. It's clear that the blood that should be going to your brain has been diverted elsewhere."

"I blame *you*," he said with a grin. "But just to finish my thought, I do feel bad for Kim, and wish I didn't have to cut her off. But I'm also going to need privacy and separation on occasion. And it isn't as if I *invited* her to be a passenger in my brain," he added. "She knew what she was getting into."

Brianna nodded. "Fair enough."

She paused for a moment and then raised her eyebrows suggestively. "So why only ten minutes, then?"

Liam smiled. "You do realize we're behind enemy lines, right? Trying to unite the heads of China and the US against the greatest threat humanity has ever known. So I thought I'd rein in my libido a little to focus on that. You know, for God and country."

He wrapped his arms around her, and his smile broadened. "Not that I'm crazy enough to suggest we don't make love *at all*," he added. "I wouldn't go that far if we were in a foxhole under enemy fire."

Brianna laughed and kissed him, instantly ending all further discussion. They turned their full attention to each other in a way that didn't require words, and while they kept things brief, their circumstances made the proceedings more intense than usual.

Twelve minutes later they separated and pulled a sheet over themselves. Liam then asked Kim to return, and she acknowledged she was back.

"Now that you got that out of your system," she said, "I'd advise you both to get ready for the day as quickly as you can, making sure to put your

nano-mesh body armor back on under your clothing.”

“Are you worried about something in particular?” asked Liam.

“I am,” replied Kim. “I have a bad feeling about what our hosts may do. When you fell asleep last night, I decided to do a deep dive exploration to learn as much as I could about them.” She sighed. “And accomplish a few other things, as well. In total, I spent almost thirteen minutes in milli-time.”

“Thirteen minutes?” said Liam. “That’s quite a long time.”

“About nine days for me. I won’t lie, it was brutal. But I think it will end up being worth it. I didn’t return to this realm to fail. So whatever I have to do to ensure we succeed, whatever sacrifices I have to make, I’m prepared to make them.”

“And you kept busy all that time?” asked Brianna.

“Yes, although I did take time out for sleeping. But the solitude could have been worse. I accomplished what I set out to accomplish, and at least I had Jess to interact with. Which is a whole lot better than having discussions with a volleyball.”

Brianna blinked in confusion. “Did you say *volleyball*?”

“Sorry. A reference to an old movie Liam and I streamed a long time ago.”

Brianna winced. Kim had been nothing but gracious and complimentary toward her, and supportive of her relationship with Liam. Even so, this reminder of Liam’s past life with Kim and the closeness they still shared was tough to take.

“So tell us about this deep dive,” said Liam.

“After thirty years in Arcadia, I’ve learned enough to take hacking to the next level. I can basically infiltrate any computer system and bypass any firewall and security settings. So I checked heavily protected records and files on Ming and the rest of the Standing Committee and broke into each of their

personal computers. Jess translated the Chinese for me.

“As you might guess, I found any number of skeletons. A lot they wouldn’t want their fellow Politburo members to know about. Scheming, power-plays, treachery, corruption—the works.

“Not surprisingly, it quickly became clear that Ming and several others in the Standing Committee are ruthless sociopaths who’d betray their own mothers to gain the slightest advantage. They’ll talk about honor, but it means nothing to them. General Ren does appear to be a man of his word, by the way, but he’s not calling the shots. And Ming won’t care what he and Ren promised you.”

Kim paused to let this sink in. “So I’ve also taken the trouble of infiltrating the security here, and I’ve sent a detailed map of this retreat to Jess for safekeeping. Just in case we run into any trouble.”

“Excellent work,” said Brianna. “I have no doubt Ming would betray us if it suited him. It just isn’t clear *why*. Our intel checks out. They’ll soon be working with our government.”

“True, but I’ve had a lot longer to think about this, and study Ming’s psyche. I think we’re in real danger. So why don’t you shower and dress—being sure to wear body armor. When you’re done, I’ll walk you through my reasoning. And I’ll tell you about a few other things I was up to during my nine days in milli-time hell.”

“You’re more worried than you’ve been letting on,” said Liam. “But even if the walls *are* closing in, we’re in a CCP stronghold without any weapons. Despite your hacking skill, and our own capabilities, we’re at their mercy if they plan to betray us. With or without body armor.”

“I wouldn’t be so sure,” said Kim. “So humor me. You can’t say I didn’t give you time to, ah . . . clear your head, so to speak. So I’m urging you to break the land speed record for showering and getting dressed, if for no other

reason than making sure you aren't caught with your pants down. Or in this case—you know—with no pants *at all*. I'm guessing you have certain body parts you *really* don't want exposed during a battle. Am I right?"

Liam cringed and then jumped from the bed as if he'd received an electric shock. "She does make a persuasive point," he said to Brianna. "Maybe we should get our asses in gear, after all."

Within eight minutes, Brianna and Liam were showered and dressed, complete with nano-mesh undergarments, their hair still damp after having been dried quickly with towels.

They retreated to the small living room, which contained the bungalow's only entrance, and sat on a simple lacquered bamboo couch, topped with three elegant, white cushions, and faced the door. Liam surveyed the room, but aside from yet another heavy jade sculpture of a dragon displayed on a sandalwood pedestal, there was nothing he could use as a weapon.

"Okay, Kim," he said when they were settled in. "What else were you up to while we were asleep?"

"I created a telepathic connection between us," she said without preamble. "Like the one you had with One."

"How?" said Liam. "And why?"

"As to the why, I thought it might come in handy at some point. Given what we're up against, the more prepared we are the better.

"As to the how, I was the one who perfected telepathic communication between agents and their implants in the first place. So I accessed my old files in the cloud to get the recipe.

"Since becoming digital, I've been blessed with total recall. But this wasn't the case back in the day. So I had to refresh my memory. Even armed with my old data, getting it to work again took a while. I had to reestablish the means to screen out electrical noise and translate thought and words back and forth."

"Are you sure you got it right?" thought Liam.

"Pretty sure," came back the amused telepathic reply. *"As I said, I*

thought it important to have it available, just for emergencies. And don't worry, this doesn't mean I can read your mind. Just like with One, we have to think words at each other for it to work."

Liam quickly relayed their exchange to his partner.

"Just to be clear, Brianna," noted Kim, "I don't plan to use this telepathy unless it's absolutely necessary. And I promise, when you're around, I'll speak to both of you at all times through your comms. I don't want you to wonder if Liam and I are having the equivalent of whispered conversations behind your back. I'm sure it's awkward enough having me here as it is."

Brianna sighed. "It can be a bit awkward, at that," she admitted. "But you're being as thoughtful as possible, which I appreciate. Still, given I didn't even know Liam *had* an ex-wife until a few days ago, you could say this situation has caught me by surprise." She smiled. "You know . . . just a *little*."

"*Really?*" said Kim in amusement. "And here I thought being in love with a man who has a perfect digital version of his ex-wife in his head was common."

Brianna laughed. "I guess I've lived a sheltered existence."

"Just remember to blame Liam," added Kim playfully. "Let's face it, he should have told you about me a long time ago. It was kind of a boneheaded move."

"I know, *right?*"

"Are you two finished?" said Liam, rolling his eyes. "I should have realized you would end up ganging up on me. So I guess we're only at a DEFCON 1 level of urgency unless the two of you want to pause to give me a hard time."

He shot a sheepish glance at Brianna. "Not that I don't deserve it," he added.

“Liam is right,” said Kim. “About deserving it *and* being at DEFCON 1. So let me get on with it and quickly tell you what else I was up to last night. Before we get an unpleasant surprise, which, as I’ve said, I think is fairly likely.”

“How likely?” said Liam.

“Hard to pin down. But I’d say the chances are as high as thirty to forty percent.”

Almost as if on cue, Jess announced the bungalow had suddenly become a signal dead zone. Even before the AI finished relaying this news, the door burst open and General Ren Hong and five soldiers quickly streamed inside, guns extended.

“Although it is possible the chances are even higher than *that*,” added Kim miserably.

Ren closed the door behind him, and he and his five armed comrades spread out in front of it, somewhat cramped in the small room, but looking as alert as any men Liam had ever encountered. All six wore military uniforms and combat vests packed with weapons and supplies.

“What’s this all about, General?” Liam demanded. “We’ve held up our part of the bargain.”

Ren frowned, lowering a rucksack he had brought with him to the floor, but keeping his gun trained on the two Americans. “I know you have,” he said softly, looking as disgusted by what was happening as they were. “And I’m truly sorry.”

He reached into the rucksack and removed a tiny tripod with what looked like a small, silver egg on top. He placed it on the ground. “This is a smart holographic projector, complete with speakers. These quarters are now acting as a Faraday cage, blocking all signals in or out. But all signals are still working within these walls, so Kim will be able to access the projector. I need her to join us before I begin.”

Kim materialized a moment later, standing next to Liam and Brianna, this time in jeans and a red sweatshirt. “You and your superiors are making a big mistake, General Ren,” she said.

Ren sighed and shifted his gaze to the pair of flesh-and-blood humans. “The five men with me are part of China’s version of EHO. Meaning they have just as many enhancements as you do. If they were ordinary soldiers, you could take them out with your bare hands. But these men are a match for you. Plus they’re armed, while you’re unarmed and outnumbered. Please

keep that in mind.”

Liam traded a troubled glance with Brianna but remained silent.

“I should also point out that—for *now*—the guns pointed at your necks all fire tranquilizer darts. But don’t let that give you a false sense of security. We have any number of lethal weapons we can bring to bear if necessary.”

Liam’s eyes narrowed. “I’ll ask again, General. What is this all about?”

“There’s been a change in plans,” said Ren. He turned to face Kim. “We need you to show our scientists how to make fake video able to pass muster with Ostech’s algorithm. And we need the location of Oliver Scott and Arcadia. Which, from what you told your friends earlier, are one and the same—an island called Lumos.

“When we have this information,” continued Ren, “you have President Ming’s assurance we can resume our deal, carry on like this never happened.”

Kim issued a disdainful snort. “Wow,” she said. “Ming must think we’re *morons*. He expects us to trust him now, after he’s proved his word means *nothing*. It’s a bit insulting.”

She shook her head. “But more to the point, I’ve already agreed to provide the location of Lumos once you get the Americans on board. And we both know if I told you how to fool the fake video detector, Ming would have us killed, anyway. He’d want to be sure to have an exclusive on the method.”

“You aren’t even alive in the first place,” said Ren.

“Now that really hurts,” said Kim. “Weren’t you paying attention? I’m pretty damn human. I even get depressed and cry sometimes. Do your AIs do that?”

“If you are human,” said the general, “then you can see you’re all out of options. So why not make this as painless as possible?”

Liam shook his head in disgust. “Painless for whom?” he said. “For *you*?

There's no way we'll be cooperating."

"Kim Reynolds is a free agent. She can decide on her own."

"There is zero separation between where Liam stands and where I stand," said Kim. "Which, ironically, is both figuratively *and* literally true."

The general gestured at Liam. "In that case, Major Dunne, I have no choice but to up the ante. The lives of the five people who accompanied you here are now on the line."

Ren removed a tablet computer from his rucksack and a thin cord almost fifteen feet long. He plugged the cord into the computer and then into a portal in the wall and handed the tablet to Liam. "We've blocked wireless signals, but these guest rooms also have hard-wired connections between them."

Ren tapped on the touchscreen, and the four Naval officers and Michele Schwartz Bewley suddenly appeared there. They were in one of the guest quarters nearby, bound to chairs with duct tape over their mouths, while five armed soldiers looked on.

"In a moment," said the general, "Major Cutter will be joining this group. We know you're in love with her. The video discussion you shared with us made that abundantly clear. So we'll begin by shooting your comrades in the head, one by one. Major Cutter will be the last. I'm counting on you to convince Kim Reynolds to cooperate before that happens."

"And if she does cooperate?" said Liam. "Won't you kill us anyway? Like she said, your president will want an exclusive on making fake videos."

"I know you have no reason to believe me, but I really will make sure your lives are spared. You'll be prisoners, yes—so China will have an exclusive, as you say. But you'll be kept alive—and together. That's the best I can offer."

"What about stopping Oliver Scott?" said Liam. "What about teaming up with the US? What happens when your new ally discovers you've killed or

imprisoned us?”

“We won’t be contacting our American counterparts, after all, Major. We don’t *need* an ally. My superiors have made their calculations, and their choices. This course of action allows us to make fake videos the world won’t doubt for a moment. In addition, we can study you and Major Cutter—assuming Kim cooperates so Major Cutter stays alive—to see what enhancements you’re carrying. We can question you to learn more about EHO. Since we have embarrassingly little intel on your organization—the bait you and your partner dangled in front of us in Iowa—that will be an intelligence coup all by itself.”

“In case you haven’t been keeping up,” said Liam, “America’s EHO program is being disbanded. Oliver Scott has seen to that.”

“And *your* EHO agency won’t be far behind,” said Kim. “I know how Oliver Scott thinks. He decided America’s enhanced operatives posed a threat to him, and now they’re defanged. He’ll come after yours next—and soon.”

“No he won’t,” said Ren. “Because once you tell us how to find Lumos, we’ll take him out—all by ourselves. We don’t need to join forces with the US. Your country is weak and unpredictable and would likely just hold us back. China, on the other hand, won’t be shy about using whatever force it takes to eliminate Scott. Nuclear, if necessary.”

“You still don’t get what you’re up against?” said Kim. “You haven’t got a chance alone.”

“I guess we’ll see about that,” said Ren dismissively.

The general shifted his gaze to Brianna. “Two of my men will escort you to join your friends,” he said. “I’d prefer you go with them peacefully. Regardless, you’ll end up in the same place.”

“Go with them, Bri,” said Kim rapidly through her comm. “He’s playing into our hands. *Trust me*. I have a plan. This’ll leave just four soldiers for us

to deal with, while you're kept safe."

"*Jess, tell Kim I don't need to be kept safe,*" broadcast Brianna telepathically. "*I can carry my own weight. Ask her what plan she has in mind.*"

Ren frowned. "So what's it going to be, Major Cutter? The easy way or the hard way?"

"Bri, go with them!" shouted Kim into her ear. "No time to explain. I know you're formidable, but this is for the best. I promise!"

Brianna walked toward the group of soldiers with her hands extended. Liam had also received the exchange between his two colleagues and made no move to interfere. Less than a minute later Brianna's wrists were bound with zip-ties, and two Chinese EHO agents had escorted her outside.

"*Liam, tell the general we need to have a private conversation,*" broadcast Kim telepathically. "*That you need time to convince me to cooperate before any of your colleagues end up dead. Tell him we can communicate subvocally, so he and his men can stay put. While I was in milli-time last night, I prepared a way out if we were betrayed. I was about to fill you in when we were interrupted.*"

"You've made your point, General," said Liam out loud. "It seems you hold all the cards. If it were up to me, I'd give you what you want right now. But it's Kim's call. Give me five minutes to convince her. You can stay where you are. We have a private channel of communication."

"All right," said Ren. "You have five minutes."

"Thank you," said Liam.

Kim's holographic image remained in the center of the room, but her head slumped to her chest and her eyes closed, making it clear her avatar was temporarily inactive. Liam sat back down on the bamboo couch and closed his eyes also, resting the tablet computer on the cushion beside him.

“What do you have in mind?” he asked Kim.

“For about half of my nine days in milli-time, I was experimenting on your body. I had already spent years of study in Arcadia preparing for these experiments. If I was ever able to transmit myself into your implant, I wanted to be in a position to help you if you got into a desperate situation. I can do that now.”

“Help me how?”

“No delicate way to put this. I’d like to take over your body for about ten to twenty seconds.”

“You can do that?”

“After last night, yes. I studied the motor cortex of the brain extensively in Arcadia. I spent more than four days stimulating the fibers of every muscle in your body, one by one, and measuring responses. More complex than that, but we don’t have time. Four days of work for me translated into about six minutes for you, while you slept.”

“That explains a lot. I had a series of dreams, tossed and turned, and awoke in a sweat. I assume that was you.”

“It was. I was putting your body through the paces, making sure I could take over. Preparing for an emergency. Now, I can control your movements while you’re awake also. But only if you make your mind go blank, and don’t attempt to control your own body. If you resist me, even the slightest amount, it won’t work.”

“How will it help me to turn myself into your puppet?”

“I can go into both light-time and milli-time, as necessary. Using the cameras from Ren’s holographic projector, I’ll have a 360 view of the proceedings. To me, Ren and his men will seem to be all but frozen.”

Kim paused. *“High-velocity bullets travel nearly a mile per second,”* she added. *“But in milli-time, they’ll seem to be moving only four to five feet per*

second. Considerably slower than you used to throw a football. The tranquil darts are only about a tenth of that speed—so they’ll seem to be crawling along. I’ll have plenty of time to calculate trajectories, and can act fast enough to move you in whatever way is necessary to avoid getting shot.”

“I’m sure you can act fast enough. But can my body?”

“Human bodies do have a maximum speed. But while you and your enhanced Chinese counterparts are closer to achieving this maximum than anyone, there’s still room for more. I can get your body the rest of the way there. Making you just fast enough to win the day.

“I don’t love the idea of being putty in your hands,” broadcast Liam. “But since the alternative is death or imprisonment, I’m in. Just promise me you’ll take good care of my body.”

“Haven’t I always?” replied Kim wryly. “One last thing,” she added. “Now that you’re awake, I have to be certain I can control you with the required precision before the festivities begin. So you’ll need to keep your eyes closed and make your mind go blank while I run some tests. Don’t try to move anything. And don’t try to resist me in the slightest. Got it?”

“Got it.”

“While I’m fine-tuning my control, you’ll look like you’re having a full-body seizure. Like you’re a wet dog shaking itself. That will only last for about five seconds, or about an hour and a half for me. Once I have you properly calibrated, I should only need control for about ten to twenty seconds more. That should be enough to dispatch them all. Then I’ll gladly return to gray-time, and you can have your body back.”

“I’ll have to get to our friends before their captors learn what happened. So I’ll need you to take over again when I storm that particular castle.”

“Storming castles won’t even be necessary. I have another trick up my

sleeve. We just need to get outside so I can get internet reception. I can take it from there.”

“So my contribution in all this will be to keep my eyes closed and make myself go limp?” thought Liam. *“Really?”*

Kim laughed. *“It takes a very confident man to go limp for the cause,”* she replied.

Ren and his three comrades kept a close vigil on the American major with their tranquilizer guns drawn, maintaining a safe distance from a dangerous foe, even one who was unarmed and outnumbered. The five minutes Ren had given him were rapidly winding down.

Both the flesh-and-blood major and the Kim Reynolds hologram had remained still the entire time with their eyes shut.

Ren's actions were leaving a bitter taste in his mouth, but he didn't let it show. He had made a deal with Brianna Cutter. A deal President Ming had also assured her he would stand by. So Ren found his current orders despicable.

Yes, Brianna Cutter had played them in Iowa, pretending to be a traitor to her own people. She had lied to them. But that was when she was engaged in espionage. She had been playing by the rules of that particular game—and playing well. When you bluffed to win a hand of poker you weren't a liar—you were a skilled professional.

But what she had done when she had asked China for assistance was of a different order, entirely. She had been straight with them, acknowledging her past deception and that she was still their enemy. And when they had agreed to her terms in good faith, she and her comrades had delivered.

Just as there could be honor among thieves, there could be honor among rival nations. Ming's betrayal wasn't at all the same as a spy deceiving another spy. It was more akin to breaking an agreed-upon cease fire. Or *worse*, betraying an ally—even if an unexpected one.

So Ren studied his ally-turned-prisoner, who appeared to be in some

kind of Zen-like state of meditation, and hoped against hope the man would convince Kim Reynolds to give them what they wanted. Ren had killed men before, but issuing an order to kill the Americans in cold blood, one by one, was something he was dreading.

He checked the clock on his phone and blew out a long breath. “Time’s up, Major,” he announced. “So what’s the verdict?”

Liam Dunne remained seated with his eyes closed, but Kim’s 3D avatar suddenly came to life in the middle of the room. “You win, General,” she said. “You’re right, we really don’t have any choice. So I *will* give President Ming and his Standing Committee what they want.” She shook her head. “But only in person.”

“*In person?*” said Ren derisively. “Since you manifest as a hologram, you wouldn’t be meeting them *in person* if you were standing on their heads.”

He paused. “But it was a good try. You hoped I’d take the bait and escort you outside where you can pick up a Wi-Fi signal. But let me make this clear—you’ll never be allowed to connect to the web again. Your reputation precedes you. Which is why we cut off the internet just before breaching. And why we took the precaution of disabling the computers controlling security here, increasing the presence of soldiers instead. A measure of the respect we have for your skills.”

“Any way you could respect me just a little less?”

“You’ve stalled long enough,” said the general. “Tell us what we want to know—here and now—or the first of your comrades will die. It’s as simple as that. I expect your method for defeating Scott’s deep fake detector is well over my head, so I’ll be recording you. I’ll play the recording for our experts. If they fail to recreate what you’ve done, your friends will pay the price.”

He leaned toward her with an ominous glare. “So start talking. We’ve

finally come to the moment of truth.”

“I’ll be damned,” said Kim in disbelief. “We actually agree on something, General. We *have* come to the moment of truth.”

Just as these words were spoken, Liam Dunne slid off the bamboo couch and onto the floor, writhing and convulsing as no man ever had. These movements could not have been faked, indicating to the Chinese EHO commandos that the American had bitten down on some kind of suicide pill. They each carried a syringe in their vests capable of counteracting such poisons and had been trained to act quickly to prevent high-value subjects from taking their own lives. They began rushing forward toward the spasming American when Ren’s voice boomed throughout the room.

“*Stand your ground!*” he shouted in Mandarin. “It might be a trap. Captain Chen, shoot him in the neck with a tranq dart first. Then institute emergency revival protocols *immediately*. Hurry!”

During the six seconds between when Liam had slid off the couch and Ren had issued orders to shoot him with a tranquillizer dart, more than ninety minutes had passed for Kim Reynolds.

And she had been *busy*.

An instant after she had agreed with the general that they had come to the moment of truth, she had flipped a mental switch and slammed into millitime with an indescribable rush, knowing she now had to focus her mind like never before.

Liam was now lying peacefully on the floor doing his best to disengage his mind from his body.

She sent a signal to the pinky finger of his right hand, and measured the

exact response as it leisurely moved, aware that to Ren and his men, thinking a thousand times slower than her, the movement of Liam's pinky would be too quick to even register.

She was delighted to note the movement was precisely as she expected. Dead perfect. And Liam was doing a yeoman's job of not blocking her efforts, although, to be fair, he wasn't yet aware they had even begun.

She sped up the pace, plucking one muscle group after another like a concert violinist and observing the response. Her calibrations the night before had been remarkably accurate.

She continued her tests for almost ninety minutes—just over five seconds back in gray-time—and Liam didn't fight her even once. Even better, while she was forced to make some minor tweaks, he was now a fine-tuned instrument, a Stradivarius, which she would use to put on a dazzling display of musical virtuosity.

After she had been working for almost thirty minutes—a few seconds for them—the General and his three enhanced comrades had finally reacted to Liam's convulsions. The general's mouth had been open, and he was clearly trying to shout something. She was monitoring the holographic projector's audio and video feeds, but the words had come too slowly for her to make out. Even a single letter of a single word, slowed down a thousand-fold, had taken ten of her seconds to cross his lips.

The three enhanced soldiers had been inching toward Liam like overgrown snails for what seemed like forever but appeared to have stopped just as Kim finished up her fine-tuning. She then noticed the trigger finger of the soldier in the center visibly tensed. She watched for a while until she was sure he had begun squeezing down on the trigger of the tranq gun and sighed.

Liam was now perfectly still, but this fact wouldn't register on the gunman until after he had fired. She estimated he would get off the shot in

half a second, leaving her over eight minutes in milli-time to plan and react.

She needed to prevent Liam from being tranqed, which would sever the puppet strings she was using to control him.

Still, she might be able to turn this attempt into an advantage. She used the visual feed coming from the holographic projector to determine the exact angle and position of the muzzle and project the dart's probable path. She couldn't afford to stand by and do nothing until the projectile was on its way, as Liam's reflexes, even under her control, weren't fast enough to catch it. She needed a head start.

Kim began moving Liam's right hand as fast as she could over to his exposed neck, where she expected the dart to hit. She'd do a second calculation once the dart had been fired, allotting a minute to the task, or one seventeenth of a second in gray-time. There was no wind in the room to alter the dart's trajectory, so the instant her calculations were complete, she would begin inching Liam's fingers closed where she knew the dart would arrive.

And just like that, he would pluck the dart from the air just before it struck, and hold it in place, disguising the fact that it hadn't penetrated his skin. She was already opening Liam's eyes, just so she could close them again when the dart appeared to hit its mark, convincing the shooter it had knocked him unconscious. She would leave Liam's eyes shut after that, making it easier for him to maintain a dissociative state.

Kim focused her efforts on guiding Liam's fingers to intercept the coming dart, but once he had done so, every passing second would give her seventeen more minutes to plan and calculate.

She'd have to be precise, and maintain absolute focus for hours on end, not allowing herself to be lulled by the maddening slowness of unfolding events—but she had no doubt she would ultimately succeed.

Captain Chen Han squeezed down on the trigger of his already extended tranquilizer gun just as Liam Dunne's convulsions ceased and his eyes sprang open. The American's right hand had moved at blazing speed and was already attempting to pull the dart from his neck—but it was too late. His eyes fell shut once again, and his head lolled to the side on the ground.

Chen rushed forward, pulling a syringe from his vest as he ran. A syringe containing a multi-purpose anti-poison developed by *Ostech*, an irony Chen didn't have time to appreciate. He would stab the fallen prisoner in the neck and depress the plunger in one smooth motion. Given Dunne had stopped shaking and had opened his eyes, even for just a moment, the enhanced Chinese agent was confident he could save Dunne's life. If it had even been in jeopardy in the first place.

But as Chen reached the American lying on the floor, he realized the dart was no longer in the man's neck—*and he wasn't even unconscious.*

Dunne's right hand was a blur of motion, and as quick as Chen's enhanced reflexes were, he felt a stabbing pain in his lower calf before he could even *begin* to react. He glanced down to see the same dart he had fired now imbedded in his own leg, just as Dunne's forearm continued moving at incredible velocity, chopping his legs out from under him and causing him to cartwheel to the ground—*hard.*

The captain tried to rise, but the tranq was already doing its job, and the last thing he saw before blacking out was Liam Dunne retrieving the fallen tranquilizer gun from the ground and rolling away from his initial position at impossible speed—*with his eyes still closed.*

General Ren Hong watched this scene play out before him, and his mouth dropped open. Mere seconds had passed since Chen had fired a dart,

yet it was *Chen* who was down, and Liam Dunne who was moving like a Cheetah. Ren wasn't enhanced, but the two EHO soldiers beside him were already reacting, pointing their guns at the American and firing.

But just as they were depressing the triggers a ferocious pair of five-hundred-pound Bengal Tigers launched themselves through the air toward the trio of Chinese soldiers, their claws and fangs extended, bristling with effortless strength and power.

The three men had no time to consider the absurdity of a sudden tiger attack. Instead, they ducked and diverted their aim to fire at the magnificent predators—an instinctive act of self-defense they couldn't control, despite the fact that their puny darts would do nothing to stop the cats from swatting them dead like so many flies.

But just as the heart-stopping pair of tigers were inches from reaching their prey, they vanished, and it became clear to the men they had been nothing but perfect, ultra-realistic holograms generated by the projector, impossible to ignore.

By the time they realized what had happened, it was too late. Three darts embedded themselves in three necks, fired by a man whose eyes remained shut, and the last of the Chinese soldiers dropped to the ground, unconscious.

Only fourteen seconds had passed since the American had slid off the bamboo couch, but Liam Dunne was now the only man left standing.

Kim viewed the room from multiple angles and liked what she saw. She spent a minute of her time just making sure she hadn't missed anything, and then directed Liam to rush through the door to the outside.

She let out a mental sigh of relief as the implant instantly began

receiving a strong Wi-Fi signal once again. She spent two more seconds in milli-time—thirty minutes for her—to double-check her preparations and her plan, and then slammed back into gray-time with a jarring thud.

Birds and squirrels that had seemed almost frozen before were now soaring quickly through the sky, or scampering up tree-trunks, as though she had been watching a movie that had just been unpaused.

“Time to wake up, Liam,” she shouted telepathically. *“Open your eyes and take back your body.”*

She had to repeat this twice more to finally get his attention.

“Wow,” she broadcast as he resumed control and opened his eyes. *“When you go into a dissociative state, you really go into a dissociative state.”*

Liam smiled. *“You say the nicest things,”* he replied telepathically, being sure not to attract attention. *“No one’s ever said that to me before. Really.”*

He surveyed his surroundings in wonder. It was still morning, and light was streaming in through the leaves of numerous trees, glittering off rocks in a stream winding its way through the compound. Other than the bungalow behind him, there was no sign of the presence of human beings whatsoever to mar the pristine perfection of nature.

“Since we’re outside and alone,” he added, *“can I assume we won?”*

Kim laughed. *“We did. And please note that I returned your body without a scratch.”*

“Lucky for you,” he replied after taking a few seconds to confirm this was true. *“Because you forgot to purchase renter’s insurance.”*

“No need. When you’re driving a Ferrari, you have the speed to avoid accidents. You really kicked some ass in there, Liam. Well done.”

“I never doubted myself for a second,” he replied with a twinkle in his eye.

Liam saw movement to his left and jerked his head around. He couldn't help but smile as he realized it was nothing more than a chipmunk holding a red berry in front of its mouth with two tiny hands, like a human eating an ear of corn.

"I take it you're receiving Wi-Fi," he broadcast to Kim.

"Yep. Hang tight. We're about to crash a meeting Ming is having with General Gao Hu. Ming is the chairman of the Central Military Commission, of course. General Gao is his vice chairman, the man truly responsible for running China's military. I've hacked a few of the projectors in the conference room they're using. I can transmit you there virtually as well. The holographic tech in your contact lenses will make it immersive, as if you're calling from a conferencing facility."

"Hold on," replied Liam. A stretch of woods began about twenty feet away to the west, and he rapidly made his way there to stay out of sight. He crossed the tree line and walked another ten feet before planting himself on the ground within a thicket of foliage, his back to a tree.

"Ready," he announced.

His contacts immediately displayed his virtual body sitting at a table inside a high-tech conference room, one whose walls were covered by monitors displaying maps and other tactical information. A hologram of Kim sat beside him.

Ming and his vice chairman almost jumped out of their skin as the two Americans materialized in seats around the table.

"Surprise!" said Kim cheerfully, as if this were nothing more than a surprise party for the two men who commanded the largest military in the

world.

“How did you get in here?” demanded Ming in English.

“How do you think?” replied Kim Reynolds. “I’ve had thirty years of preparation, remember? I have next-level computer and hacking skills, remember?”

“How are you still . . .” Ming stopped mid-sentence.

“Alive?” offered Kim. “At large? Good question. Turns out we took care of General Ren and his enhanced friends. Your human enhancement technology really needs some work.

“And I have more bad news,” she added. “I’m loose, I’m obviously online, and I’m a tiny bit angry with you, President Ming. So you aren’t going to love what comes next.”

Ming glared at her with unbridled hostility, not used to being challenged.

“Last night,” she continued, “while you were sleeping, I put my next-level hacking skills to use. I spent the equivalent of about thirty hours in milli-time infiltrating every vital organ in China’s entire computer infrastructure. I took over in ways you can’t block without exploding the systems you’re trying to protect.”

She leaned closer and sneered at the Chinese president in contempt. “So order the soldiers holding my friends to let them go!” she demanded. “Now! If one of them has so much as a paper cut, I’ll drive China back into the Dark Ages!”

Ming considered this for several long seconds. “I don’t think so,” he said finally. “Whatever you do, we can recover from. So, instead, I’m going to have your people killed right now, and have you rounded up. I’m sure you can do some damage before that happens. But I’m also sure the damage will be within acceptable bounds.”

“*Acceptable bounds?*” repeated Kim in disbelief. “The damage I can do

is *anything* but acceptable. I guess I need to give you a demonstration. The first of many if that's what it takes."

Kim stared deeply into Ming's eyes. "I've just knocked out China's entire power grid," she announced. "Well, I did make a few minor exceptions. The power stations serving my location and yours remain operational, so we can still have this little meeting. So is the one generating the Wi-Fi signal between us. But make no mistake, China's entire power grid is at my *mercy*."

She paused. "I'll be restoring power in sixty seconds. I'll give you ten minutes more to confirm that China just experienced the most extensive loss of power of any industrialized nation in history. Then we'll talk again.

"Oh, and President Ming," she added, raising her holographic eyebrows. "Don't even *think* about sending soldiers to our position here. I *promise* you, you'll want to hear what else I have to say before you do something all of China will regret."

With that, the holographic presence of the two Americans vanished from the room.

"I assume that wasn't a bluff," broadcast Liam.

"Definitely not a bluff."

"What else can you do?"

She quickly reeled off a host of other crippling actions she could take with the snap of her virtual fingers.

"Jesus, Kim," he broadcast when she had finished, feeling the blood drain from his face. *"You're like a force of nature. Unbelievable. You could bring China to its knees. The entire world, for that matter."*

"I suppose I could. But that's the last thing I want. I'm bound by a code of ethics. And I'm interested in science—not conquest."

"Good thing," replied Liam, more troubled than he was willing to let on.

No one person should have this kind of power, not even a woman he had once loved. *“Remind me not to piss you off.”*

“Well, you were married to me,” replied Kim in amusement. *“So you know that’s always been good advice. Even back when I was a mere mortal.”*

Liam laughed, despite himself.

Same old Kim.

He swallowed hard. Or was she?

When they had been husband and wife, she had been as kind and caring as anyone he had ever known. But now? After thirty years in purgatory gathering resentments and baggage?

She seemed like the same Kim in every way. But the old Kim couldn’t torch the entire world with the blink of an eye. Not only were her current capabilities staggering—they were *terrifying*.

She *seemed* to be on the side of the angels. But was she? And if she was, how long would that last?

It was impossible to know the true motivations of any human being, or ferret out all hidden agendas. And that was when it came to the standard, flesh-and-blood variety. What about digital copies? Were they really identical to the originals?

What if the thing theologians called the soul *didn’t* survive digitization?

And did absolute power *always* corrupt absolutely—or were there exceptions?

Liam decided he would keep these concerns to himself—for now.

“If you can wield this kind of power,” he broadcast, *“why didn’t you do something similar when we were fighting for our lives on Coronado?”*

“I hadn’t worked out how at the time.”

“You could have gone into light-time for a fraction of a second and figured it out.”

She sighed, something that came through loud and clear, even using telepathy. *“The US already saw us as villains. Threatening to plunge America into the Dark Ages before we cleared our names would only make it worse. They’d still believe we were the butchers who massacred twenty innocents in San Diego and planned to take down our government, so wouldn’t trust a word we said. They’d panic. Who knows what they’d do to kill us. What losses they’d deem acceptable.”*

“Besides,” she added, trying to lighten the mood, *“I was hanging out with the most patriotic people in America, all but one in the US military. Threatening the destruction of the country seemed like bad form.”*

Liam considered her explanation but didn’t respond.

“But rest assured,” she continued, *“if Brianna hadn’t thought of getting China to bail us out, I would have done what I had to do to ensure our survival.”*

Liam shook his head. *“I don’t know, Kim. I can’t help but feel there’s more to it than you’re letting on.”*

There was a long pause. *“You’re right,”* she replied finally, and there was almost a sadness in her telepathic tone. *“While these other factors I just mentioned played a role, the truth is I was also reluctant to reveal the true extent of the disruption I can cause. More than reluctant. I hoped I’d never have to. Ever. I only did so now because we had no other choice.”*

“Why so reluctant?”

“Come on, Liam. I can already sense you pulling back from me. It’s subtle, but even after a three-decade absence, I can read you like a book. Who wouldn’t be unsettled to learn this much power resides in one person? Hell, resides in one digital construct that you still can’t be sure about? More than unsettled. Terrified. I didn’t want you to think of me as being some kind of potential monster. I didn’t want to freak anyone out. Especially you. And

now I have.”

Liam nodded slowly. *“You have,”* he said. *“But by being honest with me about it, you’ve gone a long way toward calming my fears. And your concern about not alienating me, or others, reminds me of how human you really are—and Kim-like, for that matter.”*

“I’m glad. But I know you’ll never think of me in quite the same way again. And for that, I’m truly sorry.”

Liam wasn’t quite sure how to respond, so he didn’t. *“Another question comes to mind,”* he broadcast instead. *“You possess the ultimate computer skeleton key. So why can’t you use that to take down Oliver Scott? All by yourself? For that matter, why hasn’t he used something similar to rule the world already?”*

“My skills are vastly superior to his, so he can’t begin to do what I can. They’re a culmination of advances I’ve made, myself, as well as those made by dozens of other computer geniuses within Arcadia. We’ve managed to keep these breakthroughs from Scott so far.”

She paused. *“That being said, he does have defensive capabilities no one else on Earth has—firewalls—which he’s secretly embedded in all Ostech computers and systems. So while he can’t take over protected computer systems like I can, he can stop me from taking control of his computer systems.”*

Liam thought about this further. He wanted to ask additional questions, but time was running low. *“How long until we’re due back?”* he asked.

“About a minute.”

Liam used the remaining time to recon the area. Still no sign of hostiles. Ming must have taken Kim’s admonition as seriously as it deserved. As soon as Liam returned to his perch within the thicket of trees and foliage, Kim transported his holographic image back to Ming’s conference room.

When they arrived, Ming and Gao Hu looked decidedly ill.

“I take it I’ve made my point?” said Kim.

“You did what you said you could do, yes,” said Ming grimly. “And the consequences of a power outage across the entire country, even for only a minute, were more troubling than I had guessed.”

“I’m glad you’re beginning to come around, President Ming. But that’s only for starters. You’ve messed with the wrong woman. I have a knife pressed against China’s jugular. I can melt down your power grid in ways that will take you *years* to reverse. I control the computers, so I can make the systems fail catastrophically. Destroy them *physically* as well as electronically. Unleash viruses that will spread through every computer in China like wildfire.

“But there’s more. I can control your nuclear arsenal. I can zero out the balances of every bank account in China, and destroy all backups, including in the cloud. I can change your traffic lights, take over self-driving cars, and cause millions of crashes. I can disable factories. Shut down hospitals. Grind commerce and transportation to a halt. The list goes on and on. In short, I can destroy your entire civilization. I can create so much devastation and chaos that you’ll *wish* you were back in the Dark Ages.”

Ming looked as though he’d been hit in the stomach with a cannon ball. “What do you want?” he whispered.

“Only what you’ve already agreed to. I want China to work with the US to take down Oliver Scott. Both countries, working together, will strike more fear into him than either country working alone. The more pressure he feels, the better the chance we can push him into making a mistake.”

“Given your hacking skills,” said Ming, savvy enough to immediately ask the same question Liam just had, “why can’t you take out Scott on your own?”

Kim responded with the same answer she had just given Liam.

“But getting back to what I want,” she continued, “our agreement also called for exemplary treatment for us and our colleagues. Which means you need to release them immediately and make sure they get the VIP treatment you promised.”

“Of course,” said Ming.

“Of course?” repeated Kim in disdain. “Of course? That’s what you said the first time you agreed to these terms. This time you’d better mean it, President Ming, because I have a steel glove around your testicles. If you don’t want them crushed, you’d better behave from here on out. And just so you know, despite your backstabbing, I don’t want to hurt you, or your citizenry. But I’ll do what I have to do if you cross us again.”

Kim paused for effect. “I know what you’re thinking. End Liam Dunne—and his digital passenger—and end the threat. Easy enough to kill us suddenly, right? Before we see what’s coming. A surprise missile strike, perhaps, to be sure I’m wiped out along with Liam—leaving me no time to cripple your country.”

She shook her head. “It won’t work. Killing me will only hasten your destruction.”

“How so?” asked Ming.

“I’ve set up dead man’s switches in China’s vital systems. I can trigger them in the blink of an eye. But all the switches are also programmed to do a wellness check on me once per minute. You know, make sure I still exist. As long as they detect my presence, they’re happy. Fail to detect it, because you’ve destroyed me or I’m in a dead zone, and they’ll trigger Armageddon automatically.”

She held Ming’s gaze for several seconds. “I trust I’ve made the situation clear.”

The Chinese president glared at her with a savage intensity, but finally nodded. “You have.”

“Good. So until this is over, if I were you, I’d devote massive resources into keeping me and Liam alive. And making sure I never lose touch with the internet, even for a moment. So I’d have a few vans with internet boosters and triple redundancy connections follow us around. Backups for your backups, wherever I am. A dead zone for me will have catastrophic consequences for you and China.”

“Your safety and . . . connectivity, will be our highest priority,” acknowledged Ming.

“Outstanding,” said Kim. “So why don’t you send some men to collect us. We’ll be waiting right outside the quarters we were in last night. Well, Liam will, in any case. While they’re at it, have them bring our friends along, so we can have a reunion.”

“I’ll see to it the moment we’re done here,” said Ming.

“Good. Then we can return to being allies and forget any of this happened. And don’t worry, President Ming. I won’t use the power I have to control your various grids, nor will I share it with the Americans. No one gets an unfair advantage because of me, even my former country. I’ll remain neutral and will let the two countries make decisions from here on out without any coercion. All I care about is stopping Oliver Scott. A goal I know you share.”

Kim leaned closer to the Chinese president and bored into his eyes with a stare that could melt lead. “You made a big mistake coming after us and breaking our deal,” she said with a scowl. “I trust you won’t make the same mistake again.”

Brianna Cutter sat beside Liam Dunne in the expansive Chinese conference room and longed to hold his hand. She didn't, of course, since they were two of the greatest warriors the planet had ever produced and were in a meeting to discuss matters that could change the course of human civilization.

Probably not the best time for a public display of affection.

Conference participants at the White House were now gathering in a room very similar to this one, and in minutes both sides would be present at each other's facility in holographic form.

Video conferences and virtual meetings had become the way of the world as technology improved and in-person meetings were no longer considered a necessity. More and more people worked from home, and virtual meetings were now taking place even among employees in the same *building*—which Brianna found to be an alarming trend.

In their case, however, given the parties were separated by seven thousand miles, had been fierce rivals for decades, and had a visceral dislike of each other, a holographic conference was probably a good call.

For two days now, she and Liam had been treated like royalty, thanks to Kim's newfound influence with the Chinese. Apparently, when Kim had insisted Brianna leave the bungalow with two enhanced commandos, she had known what she was doing.

Not that Brianna was thrilled to learn that Liam's ex-wife could pilot his body as though he were a giant Japanese robot. Or worse, to learn that Kim could plunge the world into chaos and barbarism in an instant.

Brianna was struck by just how many seismic shifts in the reality she had once known had occurred in such a brief period. Just a week earlier, her greatest hope was to steadily work her way into the good graces of General Ren Hong, the head of Chinese Intelligence, even if it took years.

And today? Today, she was a special guest of the president of China, himself, sitting at a conference table in Zhongnanhai, inside the very belly of the beast. Today she would be present as the leaders of two rival superpowers met to join forces against a common enemy, allying for the very first time.

It was mind-boggling.

As Brianna continued to wait for the meeting to begin, her thoughts returned to Ming's attempt to move against them at the mountain retreat, and its immediate aftermath. It was remarkable how quickly she and her fellow hostages had been freed and treated like honored guests once Kim had put her boot on Ming's neck. Within hours, Captain Perrine and the other strange bedfellows Liam and Brianna had gathered along the way had been whisked off to a private beach resort to be pampered as Ming had promised.

Lieutenant Bobkoski had recovered nicely. Since neither he nor his SEAL roommate had been named in the worldwide manhunt, they would get their lives back as soon as this was over. Tragically, that wouldn't be the case for Rebecca Perrine, John Vargas, and Michele Schwartz Bewley.

When Liam had seen his five fellow Americans off, he had issued a heartfelt apology for having dragged them into this hell. For derailing their lives. But all made it clear they knew exactly who was to blame.

While this apology was being made, Ming was waking President Kent. With the help of Kim's recorded testimony and a fake video she produced showing Kent committing an atrocity—which checked out as being real—he quickly got on board.

After the president briefed key personnel in his administration, and had

Phil Thomison released and EHO reinstated, he had insisted on a virtual meeting with Liam and Brianna at the mountain retreat.

The trio discussed a number of subjects, including the best way to stop the worldwide manhunt that had the two EHO agents and their comrades in the crosshairs. They quickly concluded, however, that it couldn't be done. Given the manhunt had gone viral, the genie couldn't be put back in the bottle. The only way to take the heat off was for the president to announce—immediately—that the five subjects of the manhunt had all been found—and killed. Death was the only way out.

For the former football star born as Eric Raymond, this was nothing new. Phil Thomison had killed him off long ago so Liam Dunne could rise from the ashes. Since he and Brianna already used multiple identities, however, very little would change for them.

That wasn't the case for the two Naval officers and Michele Schwartz Bewley. They would need to alter their appearances somewhat, and don new identities.

President Kent agreed to ensure all three were taken care of as well as possible, given the need for them to keep a vanishingly low profile. Michele would join her friend, Amoreena Berg, at the black laboratory in Tucson, with increased pay and responsibility. Perrine and Vargas would each be put in command of an important black-ops group, giving them the leadership roles they had earned and the anonymity they needed. It was still a cruel injustice to have their prior lives destroyed, but it was the best that could be done.

As Brianna continued reflecting on recent events, she realized the past two days had been more of a whirlwind than any two days in her life.

Well, other than the *preceding* two days.

Or the two days before *that*.

Brianna sighed loudly. It had been quite the week.

She traded a hopeful glance with Liam as the American participants finally began populating the empty seats on the other side of the long table. Liam, Brianna, and a holographic Kim Reynolds were on the Chinese side but had asked to be separated from all others by two chairs, forming their own separate island.

Attendance at the session had been severely limited. Ming and Kent both agreed they needed to keep their plans as close to the vest as possible. Scott was too wealthy, and too resourceful, to do anything less.

The Chinese contingent consisted of President Ming Yin, Generals Ren Hong and Gao Hu, and the eight other members of the Politburo's Standing Committee, although only the president and two generals were expected to have voices. The others would be more like flies on the wall.

The US side consisted of President Michael Kent, Vice President Gina Frontiero, Defense Secretary Pedro Vera, Chairman of the Joint Chiefs John Brown, DNI Secretary Leslie Thomas Guenther, DHS Secretary Cheryl Cavanagh, and National Security Advisor Jim Stout.

Each participant had been issued comms, and an AI was set to provide instant translations between languages for those who weren't fluent in both.

With the attendees now in place, the presidents of the two respective countries welcomed each other's contingent, issued platitudes about the spirit of cooperation, and then turned the start of the meeting over to Kim Reynolds, as planned.

Brianna braced herself. She had no way of knowing how the meeting would unfold. But given the US president was in attendance—and wasn't even the most powerful man in the room—she was eager to find out.

The flawless hologram of Kim Reynolds rose from her seat, now wearing a stunning black-and-pink pantsuit, and surveyed the esteemed group. “Thank you all for being here,” she began. “And, please, jump in any time with questions or comments. This isn’t meant to be a monologue.”

She paused while the meeting participants nodded their understanding.

“You’ve all seen the replays of my discussions with my colleagues in Coronado, California, and elsewhere, describing the true nature of Arcadia and what Oliver Scott has really been up to. And I’m grateful for your willingness to take the threat he poses as seriously as it deserves.”

President Michael Kent, in the form of a hologram appearing to be seated six spots away from Kim across the table, didn’t look entirely convinced.

“About that,” he said. “So far, the parts of your story we’ve been able to check out all track. Dr. Schwartz Bewley confirmed you were liberated from Major Dunne’s implant after being compressed in a way thought to be impossible. We’ve also verified Oliver Scott can make undetectable fake videos—as can you. And that he tried to frame Liam Dunne, Brianna Cutter, and others using these fake videos.”

He paused. “We’ve also learned that the year before you say Scott built an optical supercomputer array of unprecedented size and power, he purchased several companies making key optical computer components. He upped their production a hundred fold, yet he never sold any of this excess inventory. No one caught it at the time, but it does support what you’ve told us.”

“That’s quite interesting,” said Kim. “But it seems you’re working your

way toward a broader point.”

“The point is this: We believe Scott is a threat. And we’re willing to plan as if everything you’ve told us about him is true. Including his interest in wiping out ninety percent of the world’s population. But be aware that we’ll be continuing to vet him—and you. Before we commit to an action we can’t take back, everything will need to continue to check out.”

He nodded at his counterpart across the table. “I’m sure President Ming feels the same way.”

“Actually, I don’t,” said the Chinese president. “We’ve considered Oliver Scott to be a global threat who needs to be eliminated for some time now. Given everything we know, we find Kim’s information to be extremely credible.”

Kim nodded at Michael Kent. “I appreciate your caution, Mr. President,” she said. “But everything I’ve told you *will* check out. So I have no doubt you’ll choose to go forward.”

“I wouldn’t be entirely surprised,” replied the American president. “But please continue.”

“The question on the table,” said Kim, “is just *how* we should go forward. My job is to provide critical information that will help this group devise a plan of action to end Oliver Scott once and for all. The greatest threat human civilization has ever faced.”

She paused to let this sink in. “First,” she continued, “let me tell you where to find him. The public believes he spends most of his time on the island of Scottville in the South Pacific. It is also widely believed he travels about a third of the time, although his whereabouts at any given moment are a closely guarded secret.”

Kim shook her head. “As you know from my previous discussion, neither of these assertions are true. Instead, over the past four years, Oliver Scott has been the ultimate recluse. He spends *one hundred percent* of his time on a large, man-made island he calls Lumos. One with a subterranean optical computer array spanning almost the entirety of the island. A computer array housing over five thousand Arcadians.”

“We’re aware Scott owns many hundreds of islands,” said Ren Hong. “Natural and man-made alike. For years we’ve been gathering intel on each one. How is it we didn’t discover Lumos for ourselves? There are only so many places one can hide an island.”

The hint of a smile crossed Kim’s face. “You’d be surprised, General. What you don’t know is that one of the many breakthrough technologies to come out of Arcadia is perfect invisibility. Scott has kept this tech private, so no one guesses it’s possible, or attempts to find ways to defeat it. It’s just one of any number of extraordinary technologies he keeps to himself. Which is why he’s nearly invincible. And why it’s going to take a concerted effort to beat him.”

Kim paused. “But back to the invisibility tech,” she continued. “He’s only ever used it for a single purpose—to hide Lumos. And it’s been unbelievably effective.”

“Are you telling us the *entire island* is invisible?” said Leslie Thomas Guenther in disbelief.

“That’s what I’m telling you, yes. Invisible not just to light, but to radar

and other sensors.”

“But *you* know where to find it,” said Ren.

“I do. It’s located almost exactly three hundred miles due northeast of Scottville in the South Pacific. I’ll provide the precise coordinates. But trust me, you could stand five feet away from it on a yacht—or on a Navy warship—and not know it’s there. Once you breach the protective outer bubble of invisibility, it suddenly appears in all its glory.”

She gestured toward Kent. “This is something else you’ll be able to confirm, Mr. President, to give you confidence in my veracity.”

“The fact that Scott can hide an entire island is extraordinary,” said General Gao. “Still, once you provide the coordinates, taking him out should be fairly straightforward. Since he never leaves, we won’t even have to worry about timing it right.”

“I agree,” said Defense Secretary Vera, pursing his lips in thought. As head of the US military, second only to the president, he was Gao’s precise equivalent. “The trick will be to sneak up on him. Which I assume will be more challenging than we might guess. My first thought would be to send in a joint SEAL/South China Sword commando team.”

Vera paused. “Strike that,” he amended. “Better yet, we can send in a combined team of American and Chinese EHO agents, now that we’re working together and willing to admit they exist.”

“That should do the job,” said the Chairman of the Joint Chiefs. “We could have a stealth submarine cautiously approach the island and release a few dozen frogmen. They could make their way to the most secluded part of the island and emerge there.”

“My thoughts exactly,” said Pedro Vera. He gestured at Kim. “If you can provide intel on the precise location of Scott’s residence, this elite strike force can take him out. Surgically. Before he even knows we’re there.”

Kim blew out a long breath. “Normally, that would be an excellent strategy,” she said. “But he has sensors on the island you wouldn’t believe. His sensors have sensors. No way to touch foot on the island without his security knowing it.

“And while he might be reclusive, there are a thousand commandos living on the island. Along with fifteen hundred civilian personnel who keep the place running and do his bidding. Scott keeps to himself, but you can’t sneak up on him. No more than an ant could sneak up on a queen bee in the center of a particularly vicious hive.”

Gao frowned. “Why not just hit him with a tactical nuke and be done with it?” he said.

“You must have missed the part about fifteen hundred innocent civilians being on the island with him,” said Vera. “Not to mention mercenary soldiers who likely have no idea they’re employed by a monster. Most people believe Scott is the tech version of Jesus Christ, after all, delivering humanity to the promised land.”

The hint of an icy smile appeared on Gao's face. "I actually did factor that in," he said in contempt. "Perhaps *you* missed the part where Scott will kill *billions* if he isn't stopped. I'm sure many of these twenty-five hundred inhabitants aren't as innocent as you suggest. Even if they are, when measured against *billions*, they represent acceptable losses."

"Acceptable losses?" repeated Vera in disbelief. "Or are you just looking for the easy way out? There has to be a less reckless plan to accomplish our objective."

Gao snorted. "I'm not surprised you'd be squeamish about doing what is —"

"Stop!" said Kim Reynolds. "This isn't productive. And you're both missing *two* important points. First, it isn't just twenty-five hundred flesh-and-blood innocents you'd be killing. It's more than *five thousand* of the greatest minds our generation has ever produced. Geniuses who didn't join Arcadia of their own free will as the world was led to believe. Including hundreds of Chinese scientists, I might add."

"But they aren't truly alive," said Ming.

Kim struggled to keep her face impassive. "We can argue that later," she said. "But even assuming Arcadians are simply AIs, they've shown themselves to be hundreds of times more creative and capable than any AI that has come before. They've generated breakthrough after breakthrough. So a nuke won't just destroy thousands of flesh-and-blood people. It will destroy the best minds of our generation. It will destroy the geese that lay the priceless eggs."

"The *geese*?" said Ming in confusion.

"Sorry," said Kim. "Probably more of a Western saying. The point is, human or not, alive or not, why destroy a proven generator of game-changing technologies?"

There was a long silence as the meeting participants considered these words.

“You told us we were missing *two* important points,” said Pedro Vera finally. “What’s your second point?”

“My second point is that my first point doesn’t matter, anyway. Because I’m convinced nukes and missiles won’t work. Just inside of the invisibility screen, there’s a proprietary energy shield. Birds and people can get through. Nukes, bullets, and missiles . . . not so much.”

Gao shook his head. “A shield that can stop nukes?” he said. “I don’t believe it.”

“Yeah, because perfect invisibility is so believable. Or the fact I reside in Liam Dunne’s head. Or the array of breakthrough technologies Scott has released in the past handful of years. You’ve seen the impossible repeatedly. Yet *this* is where you draw the line?”

Ming wore a thoughtful expression. “I find it interesting you only said you were *convinced* a nuke wouldn’t work. Not that you were *certain*. I wonder if your real goal here is to protect your fellow Arcadians above all else. So what if this group comes to a decision to launch a nuclear strike, despite your objections? Will you allow it?”

A stunned expression came over the virtual faces of every American in the room. Had the president of China really just asked a civilian hologram for *permission* to launch a military strike? As though he reported to *her*? Something must have gotten lost in the translation.

Kim sighed. “I’ll allow it, of course,” she replied. “As I’ve said, I’ll support whatever this group decides. I do believe a nuclear strike will fail. But even if I knew otherwise, I plan to keep my word. I won’t interfere.”

“What word?” asked Michael Kent. “What just happened here?”

“Long story for another time,” said Kim. “We need to get back on track.”

The American president held her gaze for several long seconds. “Just be sure you tell me this long story *soon*. I need to know why President Ming thinks you can prevent us from carrying out decisions we make here.”

“Of course,” she replied.

The room fell deathly quiet for several long seconds.

“Okay,” said the Chairman of the Joint Chiefs, breaking the silence. “Let’s say Kim is right about everything. A surgical strike won’t work because it will be detected. A nuclear strike will be blocked.

“So what about something in between? Our two countries can send every sub and warship in our combined navies to surround the island. We can ask the inhabitants to surrender. Many will, and their lives will be spared.

“Assuming Scott refuses to surrender, we can kill him with a thousand cuts. Endless missiles rained down upon him from every ship and sub. Jet fighters flying sorties from multiple aircraft carriers. Special forces groups of every flavor raiding the beaches. And so on. I don’t care what kind of defenses he has, he won’t have a prayer.”

“I used the term invincible for a reason,” said Kim. “Surround him like that and he’d hit you with directional EMP devices a group of Arcadian geniuses cooked up for him. The EMPs won’t touch him, but all electronics in your combined fleet will be fried.

“Even if he chooses not to deploy these devices, he’ll just hack your computers and disable your ships. He won’t be able to take them over the way I could, but trust me, you’ll be dead in the water. Then he’ll train his automated offensive armaments on you, which are daunting. Next-level, like everything else. I suspect he’d prevail even if he left all your warships in working order.”

She shook her head. “Bottom line, your combined fleets won’t stand a chance.”

“Are you here just to tell us what *won't* work?” said Michael Kent in frustration. “Or do you have any thoughts on what *will*?”

Kimberly Reynolds smiled. “Why, Mr. President,” she said serenely, “I thought you’d never ask.”

Kim paused for several seconds to gather her thoughts. Every eye in the room was now glued to her holographic face.

“In my view,” she began, “no external attack, alone, can win the day. The only way to stop Scott is to attack him in two ways. From without—and from *within*.”

“So you’re suggesting we get inside help?” said Vera.

“I am.”

“Does that mean you know how to contact the mercs on Lumos?” added the Secretary of Defense. “And have reason to believe we can turn some of them?”

“No. That’s not what I mean. When I say from *within*, I mean we ally with a group of *Arcadians*.”

Bewildered expressions spread across the room.

“How is that possible?” said Ming. “You’ve already told us Scott is a god in Arcadia. That your former Arcadian colleagues can’t connect to the internet. And that he controls their clock speed.”

“Not to mention they’re all ghosts,” added Kent, “unable to affect matter in any way beyond their supercomputer world.”

“All quite true,” said Kim Reynolds. “To a degree. After all, *I* found a way to emerge from Arcadia. So Arcadians aren’t completely without the ability to impact events out here.

“More to the point, about twenty-eight years ago, for me, I co-founded something called ARM—the Arcadian Resistance Movement. I won’t name the other co-founder out of an abundance of caution. The group now has well

over four hundred members. And not just any members. Most are among the greatest geniuses in Arcadia—and that’s really saying something.”

“If Scott is a god there,” said the American president, “how are they able to operate?”

“Very carefully,” she said. “We’ve perfected any number of tricks. For instance, we can hide our memories. So even if we’re tortured or put in solitary confinement, we can’t give up the advances we keep from Scott. Or tell him about ARM and the identities of its members. Because we truly won’t have the information at the time.”

“Let me make sure I understand,” said Brianna, speaking up for the first time. “In essence, ARM members are like computer files able to self-delete when under duress. So keyword searches turn up nothing. But once they’re no longer under duress, the files automatically return.”

“Exactly,” said Kim. “Except a lot more complex, and in multiple higher dimensions. And we can play other shell games as well, but I won’t go into any further details. I can’t risk any of the particulars leaking back to Scott. If he knew our methods, he could nullify them, and torture Arcadians until he had the full roster of ARM members.”

Kim shook her head in horror. “And that would be a total disaster,” she continued. “He’d eliminate them entirely—and all would be lost.”

“Given Scott’s reach,” said General Ren, “you are wise not to disclose anything specific, then. But can you tell us what this Arcadian resistance has been up to—in general?”

“Planning. Figuring out better and better ways to shield our activities and withhold breakthroughs. Creating scientific advances for the cause.” Kim raised her eyebrows. “Which is how *I* got here. Through the undying efforts of every member of ARM. You know, it takes a village.”

“Why aren’t *all* Arcadians part of this movement?” asked Liam.

“There are various factions, even within Arcadia. Most of the scientists who originally founded it, who worked with a very different Oliver Scott, are still loyal to him, despite knowing what he’s become. They were on the verge of death and he saved them from this fate.

“But even many of the newcomers, who were forced to enter Arcadia against their will, love it there. It was designed to be a stress-free paradise, after all, with all material needs taken care of, and the opportunity for endless intellectual stimulation. It provides scientists the opportunity to work on their passions with the best minds of the age. While the Arcadians of this persuasion don’t love that Scott exerts total control over their clock speeds, and so on, they’re quite content.”

“Do they know what Scott has planned for the real world?” asked Brianna.

“If they don’t know precisely, they have a pretty good idea. But it’s easy for them to shrug it off. Like Americans learning of genocide in a small third-world country. They’re horrified it’s happening, but it impacts their lives very little.”

“What about those who do choose to join ARM?” said Vera.

“They have a different view. They bristle against Scott’s control. Like wild horses given harnesses. Those in ARM are incensed they were murdered and put in Arcadia against their will—regardless of how pleasant it might be. They hate being at the mercy of a self-proclaimed god, subject to his every whim. They still care deeply for the people and the world they were forced to leave behind.”

“I see,” said Ming. “Which you’re suggesting makes them our natural allies.”

“That’s right.”

“But it also sounds like they need our help to succeed,” added the

president of China.

“And you need theirs,” said Kim.

“In what ways can we help each other?” asked Michael Kent.

“Scott has sensed something is going on. He doesn’t know about ARM, but he has good instincts. And he’s become more paranoid by the week. So for the past six months, he’s been keeping all of Arcadia perpetually in gray-time. We call it the Great Freeze.

“ARM is fairly close to finding a breakthrough means to access the internet,” she continued. “A novel Wi-Fi, so to speak, they can generate themselves. And other advances that will allow them to impact the world with their thoughts alone. If the advances I’ve told you about are next-level, these would be next-level *times a hundred*. The finish line is in sight, but best estimates still put it about twenty years of progress away.”

“Which is time we don’t have,” said Liam.

“That’s right. Other factions keep feeding Scott breakthroughs, even if they’ve been relegated to gray-time only. In just a few years, at most, he’ll become so powerful, so invincible, nothing will be able to stop him.”

Liam nodded. “But if you could get him to accelerate the geniuses in ARM to light-time for just ten minutes, that would give them the twenty years they need to develop the means to challenge him. While he’s still vulnerable.”

“Very good,” said Kim with a smile. “I knew there was a reason I fell for you so hard all those years ago.”

Ren looked annoyed at this frivolous aside. “Are you suggesting we can somehow help make that happen?”

“That’s exactly what I’m suggesting, yes. There are two possibilities. The first one is the best, but also the least likely to succeed. The master terminal Scott uses to control Arcadia is in his office, and has to be accessed

in person.”

Kim frowned. “Unfortunately, his office is also the most secure place on Earth. Still, I know the identities of all Arcadians in ARM. So, if I could somehow get access to his terminal with a flash drive, I could put all of these members in light-time for as long as they needed.”

“Sounds like you don’t think you can get in, though,” said Kent. “Even with our combined help.”

“Like I said, Scott is the queen bee sitting in the middle of the hive. And he now wears a belt that can generate a personal energy shield like the one protecting Lumos. Only he has it. So if we did get close to the terminal, he’d just activate his shield and carry the terminal below ground, into a subterranean minotaur maze, while directing his automated defenses to finish us off.”

“So what’s the second possibility?” said Liam.

“The second is for the vast might of America and China to be trained against him simultaneously. Stress him out. Force him into a mistake. By carrying out all the attacks previously mentioned—and more.

“First, we cripple his business. Shut down Ostech. Freeze his assets. At the same time, we engage in the most profound saber-rattling operation in history. We threaten to send in every last soldier in both combined armies—millions if necessary—if he won’t surrender. Along with every last ship, tank, missile, and munition.”

She paused. “My hope in coming to the real world was to lay out my case against Scott and get America to do what I’ve just outlined. The fact that circumstances conspired—with Brianna Cutter’s help—to bring China into the fray is a happy surprise. Both superpowers, together, will throw more of a credible scare into him. Make him question just how invincible he really is against such a coordinated onslaught.”

Liam gazed at her in awe. “With the hope being that the saber rattling alone will get him to panic—without a single shot needing to be fired. Forcing him to accelerate key groups of scientists, including ARM scientists, to help him. Not knowing he’d really be pushing ARM across the finish line, allowing them to join the fray against him.”

“Exactly!” said Kim enthusiastically. “I doubt even our combined efforts could kill him. But all we need to do is make him *think* it might. Introduce the shadow of a doubt. Get him to put various Arcadian teams into light-time to accelerate his invulnerability.

“It has to be tempting. In his mind, all he’d have to do would be open the throttle for ten minutes and he could have additional offensive and defensive capabilities so great our puny efforts to destroy him would be laughable. He could crush us like worms.”

“Only to have it backfire on him,” said Liam.

“Yes,” said Kim. “Only to learn he’s fallen into our trap. If I could insert a flash drive into his terminal, it would be like using a scalpel. I could be precise. Only accelerate members of ARM who are closing in on breakthroughs capable of stopping him. Arcadians willing to sacrifice everything to get out from under his boot, and to save what we’ve been calling the real world at the same time.

“But that’s a low probability option,” she continued. “This second option, tricking him into triggering his own demise, is more of a shotgun approach. But it should still do the job. He’ll accelerate Arcadians in other factions, and not accelerate some of the more important ones in ARM. Still, while not as precise, it should be enough to get us there, allowing us to turn the tide.”

An extended hush fell over the room as all parties tried to digest Kim’s audacious plan.

Finally, Liam Dunne spoke, but he looked more worried than enthusiastic. “It’s an impressive strategy,” he began. “But I’m compelled to play devil’s advocate.”

This seemed to catch Kim off guard. “Okay, Liam,” she said tentatively. “What are your concerns?”

“I’m sure the vast majority of Arcadians are wonderful . . . people. Kind and generous and incorruptible. But all it takes is one. So it seems to me your strategy risks stopping a monster by creating a much more *powerful* monster. If we push Scott to accelerate your friends, go full throttle, who knows what will fly out of Pandora’s Box.”

“They’re on our side,” said Kim. “Just trying to free themselves—and help us.”

“That is likely true,” said President Ming. “But human nature isn’t always pretty. Digital human nature likely isn’t either. So Major Dunne makes a good point. You propose to bring in pythons to stop a mice infestation. Yes, they’ll get rid of the mice. But now you have a *python* infestation.”

“I tend to agree,” said Kent. “But even pythons don’t do the danger justice. More like reviving a million T. Rex’s to exterminate a lion. A dangerous game.”

The American secretary of defense frowned. “I’m afraid I have to agree,” he said. “If this is our only real option, I find it troubling. My counterpart suggested hitting Lumos with a tactical nuke, which I was strongly against. But given everything we’ve discussed, I’m beginning to think our only hope is to lean into this strategy. Hit Lumos with *multiple* nukes. And not just tactical. Maybe Scott’s shield can stop a single one. But a hundred? A thousand? All at once?”

He paused. “This will require further thought and diligence, but perhaps

the deaths of the men and women living on Lumos are acceptable losses after all.”

Kim shook her head in horror. “The Arcadians are good people,” she insisted. “Who just want to be left alone. And you’ll have their undying gratitude. I promise you’ll have nothing to fear from them. The true metaphor doesn’t involve pythons or dinosaurs. The true metaphor would be using a blanket to smother a fire. The blanket is harmless to everything but the fire.”

“This is the conference-room AI,” said a male voice over all comms. *“Apologies for the interruption. But I’m programmed to monitor meetings and determine if new information is important enough for me to immediately share with participants. I’m currently set to interrupt only when my predictive algorithm assesses a greater than ninety-nine percent chance the subject matter can’t wait.”*

“Tell us what it is already!” demanded Ren.

“Oliver Scott is calling in for President Ming,” said the AI. *“Mr. Scott insists he’s aware of this meeting, was able to name most of the participants, and has asked me to interrupt to request he be allowed to join you. Given the subject matter of your meeting, I calculated this warranted your attention.”*

Pandemonium erupted as everyone began speaking at once.

“Quiet!” bellowed Ming. “We have to decide what to do. That won’t happen by talking over each other.”

The room quickly fell silent.

“That’s better,” said Ming. He turned to his counterpart across the table. “What are your thoughts, President Kent?”

“Given his detailed knowledge of our meeting,” said Kent, “I believe we have to take his call. But we also need to be sure we don’t let any useful information slip. So we listen to what he has to say and disclose nothing in return.”

“I tend to agree,” said Ming. “General Ren, is there any danger that letting him beam a hologram of himself in here can corrupt our security?”

Ren shook his head. “The AI can make sure the transmission is completely isolated. No connecting to the local internet or computers. He’ll be limited to the projection and receipt of audio and video only. Nothing for him to get his tentacles into.”

The Chinese president gestured to Kim. “And you? What are your thoughts about accepting this call?”

“I can’t say I’m entirely surprised he found out about our meeting,” she replied. “His genius and his resources are unmatched. I am surprised, however, that he has the balls to try to join it. Regardless, I think we have to hear him out.”

She paused. “As for security, I agree with General Ren. If the call comes in as he describes, I see no way for Scott to cause any trouble or steal any intel. Still, the instant the connection is established, I’ll go into light-time for the equivalent of a few hours and check things out, make absolutely certain we haven’t missed anything.”

“How does a few hours translate into our time?” asked Leslie Thomas Guenther.

“It’s about one five-thousandth of a second.”

“Okay then,” said Michael Kent in amusement. “I’m not a patient man, but I’m prepared to live with this kind of further delay.”

Ming ignored his counterpart’s attempt at humor. “Good,” he said. “Then it’s settled. General Ren, Kim, please work with the room’s AI to establish a secure connection for our new guest.”

Oliver Scott's holographic image materialized at one end of the seemingly never-ending table, standing and facing the rest of the participants arrayed along both sides. The Chinese contingent was to his right, along with the separate island of visiting Americans. All of these—save for Kim Reynolds—were physically present.

The American contingent was to his left, all present as holograms.

Scott stood tall and looked impeccable—much younger than he had any right to look. His short, raven hair had a shiny vitality, and his fingernails were well-manicured. He was dressed in perfectly tailored casual gray slacks and a blue Oxford shirt. He was clean-shaven, well-scrubbed, and alert, with penetrating eyes dancing with an easy intelligence.

He hadn't appeared in public for some time and never shared photographs, so no one knew what to expect when he joined them. While Kim insisted he was now a recluse, he wasn't what anyone had expected. Most had pictured him resembling Howard Hughes, the richest man in America for two decades, and one of history's most famous recluses. When Hughes died in 1976, he was emaciated, his hair and beard were long and out of control, and his nails were as long as daggers.

Scott, by comparison, looked like a fit, dapper movie star in his prime, one ready to run a marathon or host a charity event. While the projector's built-in fake video detector indicated this was an accurate representation of the real Oliver Scott, he had proven this meant nothing, so it was also possible he weighed four hundred pounds and hadn't bathed in years.

"Thanks for having me on such short notice," began Oliver Scott, and while his appearance was a surprise, his elegant, soothing voice and haughty

British accent were exactly as expected.

“What can we do for you, Mr. Scott?” said President Ming.

“I’m just keen to be part of the discussion,” he said, as if it was all just mildly amusing to him. “I couldn’t quite hack into your meeting on my own, unfortunately. I’d need Kim Reynolds level skills for that. But my ears were burning. Couldn’t shake the feeling I was being talked about.”

“What do you mean by Kim Reynolds level skills?” said Kent.

“Has Kim really not told you yet?” he said. “I’d have thought she would, with you being the President of the United States and all. I have to say, though, I’m not surprised the *Chinese* haven’t told you.”

“Told me *what?*”

“That Kim has hacking skills that put us all to shame. Even *me*. I know, hard to believe, isn’t it? But the truth is, she could take over the world before I could finish this sentence.”

“What would make you believe something so preposterous?” said Kim.

“*Kim!*” said Scott with exaggerated enthusiasm, as though surprised and delighted to realize she was in the room. “*So great to see you*. You’re looking quite fetching—even for a non-physical, digital entity. And congratulations on everything you’ve accomplished.”

He paused. “To answer your question, I don’t *think* you can bring the world to its knees. I *know* you can. Remember, I’m still the smartest being on the planet, even next to you and your Arcadian friends. Surely you’ve heard of my legend. All true, if I do say so myself.

“Here’s how I sleuthed it out,” he continued. “First, I got wind of you being in China, of all places. Don’t ask me how. And then I got wind of China moving heaven and earth to make sure you have an un-interruptible Wi-Fi connection.”

Scott shook his head. “Now I’d expect them to do just the opposite,” he

continued. “To make sure you *couldn't* connect. So I had to ask myself—why? The answer is obvious, isn't it, then? They must have made a move against you. And you demonstrated you could *eviscerate* them.”

“You have a rich fantasy life,” said Kim. “But the truth is my abilities are about the same as yours.”

Scott laughed. “Except I *know* that's not true. How? Because you found a way to hide discoveries from me inside Arcadia. Which requires *unbelievable* skill. And not just run-of-the-mill discoveries. Data compression more dense than was believed to be theoretically possible, for one. A breakthrough indicative of even *greater* skill on your part. And I'm sure that's just the first of a laundry list of breakthroughs you're hiding from me.”

He raised his eyebrows. “So I conclude you did a nifty two-step with the Chinese. First, you demonstrated that your abilities to weaponize the web puts them at your mercy. Then, you set up dead man's switches as an insurance policy—to avoid an untimely death. It's the only reason they'd be in such a panic to keep you connected. Exactly what I'd do, myself, if I had your skills.”

“And yet that's not what happened,” said Ming calmly. “Kim asked for a permanent Wi-Fi connection so she wouldn't get bored when she speeds up. We graciously agreed.”

Scott laughed again. “Well, the Chinese Communist Party *is* known for being gracious,” he said sarcastically. “If there's one thing people say about you, President Ming, as general secretary of the party, it's that you're a gracious humanitarian.”

He tilted his head. “Or is that a ruthless dictator? I get the two confused.” Ming glared at him but didn't respond.

“Seriously, though,” continued their new guest, “I am impressed by the

quality of your lie. You just don't want poor Kim to get *bored*. You may not be a humanitarian, but at least you're quick on your feet. And I don't blame you for lying. Naturally, no one here wants to say anything that will provide me with useful information. Even so, I have no doubt whatsoever I've sussed out the situation with Kim correctly."

"I ask again," said Ming. "What do you want?"

"To plead my case, of course. To urge you not to listen to Kim Reynolds. Yes, I've done some horrible things. I freely admit I tried to frame your American guests. But only because I realized what a threat Kim really is. What a monster."

He shrugged. "So I was forced to do the unthinkable. To massacre my own people. And to produce videos my own system couldn't tell were fake. But this is a one-time-only lapse. A *desperate-times* measure I considered a small price to pay to nip Kim in the bud. Or nip her while she was still compacted inside Liam Dunne's head, as it were."

"No one's buying it, *Oliver*," said Kim in contempt.

"I haven't finished," he replied. "To continue, after Kim transported out of Arcadia, a number of residents there reached out to me. They told me she had gone mad, had made a number of discoveries, and had become drunk with power. The Arcadians had been under her reign of terror, themselves, while she was there."

"That's funny," said Liam. "She's said the same about you."

"I don't doubt it. In psychology, they call that *projection*. But *she's* the megalomaniac, not me. *She* intends to take over the world, not me. You're playing right into her hands. Which is why I went to admittedly savage lengths to stop her."

Liam shook his head. "She has no interest in taking over. If she did, she'd be ruling already."

“Watch what you say!” spat Ming, shooting Liam a withering glare.

“Come on now,” replied Liam while Scott looked on in amusement. “Do you really think I’m giving anything away? We can pretend all we want that Scott didn’t nail it when it comes to Kim’s hacking abilities. But he’s nobody’s fool. He knows what he knows.”

He turned back to their unexpected guest. “What about it, *Oliver*? You said yourself Kim could rule the world by the time you finished your sentence. So if she’s such a threat, what’s she waiting for?”

“A good question, *Liam*. Impressive, even. I’m not surprised. My recent study of you indicates you aren’t just a pretty face. Or simply enhanced muscle.

“The answer is that she still can’t take over *my* computer systems. I’m not her equal, at least when it comes to hacking, but I can defend myself against her. So even if she brings the rest of the globe to its knees, she’d have *me* to contend with.

“Also, she fancies having control of Arcadia too. Which is why you’re all gathered here today, I presume. So she can enlist your help to eliminate me. Get you to do the job for her. So she can waltz back to Lumos and rule over two worlds.”

Scott paused. “As for me, I’ve had the tech, money, and firepower to rule the world for years now. And yet, as Kim has no doubt told you, I keep to myself on my island. Not only don’t I pursue conquest, I have no interest in ever leaving Lumos. I just want to be left alone to play with my toys. Chiefly the little universe I created. Populated by people who are actually intelligent and stimulating, unlike the vast majority of humanity.”

“Is that why you plan to wipe out ninety percent of it?” said Liam. “Is our species not stimulating enough for you?”

“Did she really tell you that’s what I plan to do?” said Scott. “Ninety

percent? What rubbish. It's ridiculous on the face of it. I'm not a saint, but I'm not a monster. Kim Reynolds, on the other hand, is. So don't let her manipulate you into going against me. I promise you'll regret it."

"You'd make a great politician, Oliver," said Kim. "And please, take that as the nasty insult I intended it to be. It's actually entertaining to watch you try to accuse me of being you. Turn this into a *he said, she said* sort of thing."

Kim shook her head in disgust. "Here's the problem. One of us has murdered thousands of scientists in cold blood." She paused for effect. "And that one isn't *me*. I'm actually one of the ones you murdered."

Scott turned so he was speaking to the entire gathering. "Most of the scientists volunteered," he explained, as if this was just a trifling accusation. "And I did admit I'm not a saint. I offered these scientists immortality in paradise, with a better class of people, and many went willingly. More importantly, I've *saved* countless lives by establishing this souped-up think tank.

"How many lives have been saved by the cancer cures developed with Arcadian insights? How many from the existence of cheap, renewable energy available to impoverished countries for the first time? How many millions around the world no longer die of starvation due to cheap energy and dramatic improvements in farming? How many more will be saved by the availability of cheap and easy desalination, which I've recently rolled out, which will provide unlimited fresh water to even the most arid lands?"

Kim snorted. "I have to say, Oliver, this pathetic attempt to convince these people you're just a misunderstood philanthropist smacks of desperation. And it's a mistake. Shows you're worried they'll be able to beat you. That you're vulnerable. You haven't discouraged them. You've *emboldened* them."

"And you've overstayed your welcome," added Liam.

Scott smiled. "I was just about to take my leave," he said. "For those of you who still think I'm evil, I can't entirely blame you. But, trust me, I'm the *lesser* of two evils."

He nodded at Michael Kent. "When I've left, Mr. President, get your counterpart to admit he and all of China have become hostages to Kim Reynolds. And ask yourselves, who is the bigger threat? Me? A man who's been keeping to himself on an island for many years. A man who would need to mount an army to bend you to my will.

"Or Kim Reynolds? A woman who has *already* bent China to her will. And who has done so without breaking a sweat. A woman so manipulative, she's on the verge of convincing you to fight a war with me you can't win."

Oliver Scott paused for effect. "Believe what you want," he added finally. "*Do* what you want."

The dapper British tech mogul shook his head. "But don't say I didn't bloody warn you."

PART 7

Dr. Cooper Barrick beamed himself into the Amazon Rainforest section of Doriath, ARM's hidden realm within Arcadia, and waited for the others to join him. It was the same section of rainforest viewable from the room they had used for their last meeting, complete with lush tropical plants and waterfalls, and heavy on exotic birds and flowers.

Cooper loved the rainforest more than any other place in Doriath, teeming with life and vitality and color, the way he imagined the Garden of Eden to have been.

Well, teeming with computer code indistinguishable from life, anyway.

He loved the towering palms, reaching for the skies with their primeval leaves, some fifty feet or more in length, or those closer to the ground, whose fronds were corrugated fans up to ten feet long. It was an explosion of green in all possible variations, a color human beings were wired to find soothing. And much of the foliage was so much larger than commonly encountered, he could have been in the Jurassic age.

Brilliant colors were everywhere, displayed by birds, bugs, frogs, flowers, butterflies, and more. Vines and moss and giant fungi joined endless flowering plants to enhance the beauty and tranquility of the surroundings.

Doriath's rainforest was rich with oxygen, as any good rainforest should be. And while this aspect had been perfectly recreated, the humidity and danger had not been. Lethal snakes, poisonous spiders, and magnificent jaguars might wander by, but Arcadians had no need to fear them. Mostly, this was a blessing, but removing the danger also took some of the excitement out of the experience.

Cooper had teleported his black Labrador retriever, Bear, with him, and the dog sat dutifully at his feet, panting, while Cooper sat at a glass table on a living chair, its bottom cushioned by a thick pad of moss.

He luxuriated in his surroundings for ten minutes, purposely arriving early, before the rest of his ARM colleagues joined him around the glass table.

“I’ll get right to it,” he began after the meeting had formally commenced. “Things have improved dramatically in the four days since we last met. Dramatically.”

“You seem almost giddy, Cooper,” said Hadiza Musa. “Which must mean Kim found an alternative method to leave messages for us in the web.”

Cooper smiled. “The only problem with teaming up with geniuses is that it’s hard to surprise them. That’s right, she did.”

Given the data compression shell she had used to leave Arcadia had been discovered and couldn’t be used to hide messages back to them, Cooper had fully expected her to come up with an alternative. But even he was blown away by the brilliant, elegant solution she had found.

“Any chance the security AI will catch on?” asked Hadiza.

“None. Her method is that good. I can easily find and decipher the data she’s left for us, but it’s invisible to the AI.”

“How did she pull that off?” asked Rafi Katz.

Cooper explained in great detail while a flock of vivid, multicolored parrots took up residence in the canopy fifteen yards away.

“So what was in her report?” asked Kenji Sato after Cooper had finished detailing Kim’s method.

“It’s basically a video and audio recording of all her interactions since arriving. Annotated, with her providing the proper background and context. It’s pretty lengthy, but a fascinating watch.”

“I’ll be sure to bring popcorn,” said Rafi wryly.

“For the purpose of this meeting,” said Kenji Sato, “can I assume you plan to summarize it for us?”

“I do,” said Cooper, absently petting Bear, who panted and wagged his tail. “It boils down to just a few key takeaways. First, she’s making remarkable progress. The odds of her success have skyrocketed since the last time we met.”

“I told you,” said the Israeli. “She wasn’t about to let a disaster like being discovered leaving Arcadia keep her down. She thrives on challenges. Now she’s getting the chance to really show off.”

“Liam Dunne and Brianna Cutter are impressive in their own right,” said Cooper. “Kim couldn’t ask for better allies. They even managed to bring China into the game. Long story, but China and the US are now working *together*. The leaders of the two countries conducted a joint meeting to discuss how to eliminate Scott, and Kim put on quite a performance.

“Obviously, she can only predict reactions of individuals in a probabilistic sense, but she’s confident she’s elicited the proper responses. She should know shortly.”

“Any other issues that might hold her back?” asked Hadiza.

Cooper winced. “There is one. She was forced to show her hand to the Chinese. They tried a double-cross, and she had no choice but to disable their entire power grid, and threaten worse, to get them back in line. The Americans will be aware of her skill also, by now.”

He sighed. “Worse, a holographic Oliver Scott joined the meeting. He used this chance to portray her as a monster and cast doubt about her intentions. Which might make China and the US rethink their priorities.”

Rafi shrugged. “Not sure that will even matter at this point. Seems like she’s done what she needs to do. Now it’s out of her hands. But if Plan A

doesn't pan out, we all know she'll figure out something else."

"Let's hope she doesn't have to," said Cooper Barrick. "There are still numerous ways this could go south. Still, it's quite a relief that she's able to send us messages."

"Amen to that," said Rafi. "Anything else?"

Cooper shook his head. "No. After you've all had the chance to review what she sent, you may glean things I didn't. So let's meet here at the same time tomorrow. By then we'll have the next daily internet refresh, which should contain additional reports."

"Sounds like a plan," said the affable Israeli.

President Michael Kent sat behind the Resolute Desk in the Oval Office and faced his Chinese counterpart, who appeared to be seated across from him. To Ming, Kent appeared to be seated in *his* residence.

They were connected by a secure landline, and every last millimeter of both locations had been checked for bugs.

“So has your analysis of the situation changed since we last spoke?” asked Kent after a brief exchange of forced pleasantries.

The Chinese president shook his head. “It has not. We’ve considered Oliver Scott to be a massive global threat for some time now. Kim made it clear that it’s far worse than we thought. We believe everything she’s told us about him, including his plans to eventually kill billions.”

He frowned. “That being said, after learning the true nature of Arcadia, we’ve come to believe this to be an even *greater* threat than Oliver Scott.”

“What about Scott’s attempts to rehabilitate his image during our joint meeting?” asked Kent.

“We weren’t fooled. His claim that he ultimately only has good intentions doesn’t hold water. The idea that he only wants to save us from Kim Reynolds is ludicrous. He went to great lengths to kill Liam Dunne —*before* Kim was unpacked. Which means before he knew she was a threat to anyone but him. As he admitted himself, he didn’t guess her true capabilities until he learned how desperate we were to keep her connected to the web.”

“We’ve reasoned the same,” said Kent. “So his savage attempts to stop her from coming to life in Dunne’s implant had nothing to do with a fear of unleashing a global threat. Or trying to protect *us*. He went to extremes

simply to stop the truth about his activities from getting out. The truth about how he murdered the most elite scientists of our generation. And how much power control of Arcadia gives him.”

The American president frowned. “I do have to say, though, he was quite convincing in his own way.”

“Psychopaths usually are,” said Ming. “But we’ve had intel suggesting he’s become ever crueler and more ruthless for some time now, so we didn’t believe him for a moment.”

“Yeah, we’ve caught up in that department now too. And we’ve verified more of the specifics Kim told us about him. Not everything yet, but enough.”

Kent sighed. “Despite the clear and present danger he represents, we’ve come to agree with you, President Ming—and with him. He may be evil, but he’s the *lesser* evil. We agree with your assessment that Arcadia poses the greatest threat of all. A single Arcadian has demonstrated she can destroy our civilization—literally in the blink of an eye. So what can *five thousand* Arcadians do?”

He paused. “Add it all up, and it’s clear we’re facing a trio of threats that are each, by themselves, greater than any we’ve ever faced before. Oliver Scott, Kim Reynolds, and Arcadia.”

“Does that mean you’re willing to green-light a nuclear strike?” asked the Chinese president.

Kent blew out a long breath. “It does,” he said, shocked by his own words.

He still had trouble believing this was really happening. It was as if he had entered a madhouse. He had clung to skepticism, a desperate effort to maintain a comforting reality. But after members of SEAL Team Six had confirmed the presence of an invisible island right where Kim Reynolds said

it would be, he couldn't delude himself any longer.

It was all so fantastic. So impossible. But nothing underscored what they were facing more than Lumos. Not a puny island, but a large one, made entirely invisible. Constructed near the center of the mighty Pacific, the largest and deepest ocean on Earth, covering more than sixty million square miles and containing more free water than all the rest of the world's oceans combined.

Even after everything they had learned about Oliver Scott, Kent wouldn't have agreed to such drastic steps if Lumos wasn't also home to Arcadia. The strike would allow them to eliminate two existential threats in one fell swoop.

"So how do you propose proceeding?" asked Ming.

"We get the heads of our militaries together immediately to coordinate the strike. We also need to have a story ready for public consumption. Since it's an invisible island, and no one knows it exists, we can hail this as a joint exercise between our two countries. One with the goal of studying a nuclear missile explosion away from habitable areas. We can say that such an exercise is a negotiated first step toward reducing the tensions between us."

"How so?" asked Ming.

"We can say this study will help us jointly develop better methods to contain nuclear explosions. A precaution in case a rogue nation manages to set one off. And that our cooperation in this matter is a first step toward a bilateral agreement to reduce our own nuclear arsenals."

"Impressive," said Ming. "That will work well. We'll do our part to help sell it."

"Thank you. Even though we'll claim we're only detonating one for our test, I think we should begin with four."

"I agree," said Ming. "But what if Scott's shield really can withstand them all? Are you willing to hit him with more? Dozens? *Hundreds* if need

be?”

Kent blew out a long, troubled breath. “We are. Whatever it takes.”

“And Kim Reynolds?”

“After your people dropped Majors Dunne and Cutter off in Hawaii, we relocated them to a private residence on Lanai that our government maintains. It’s one of the least populated of the Hawaiian Islands, with fewer than four thousand residents. Cell coverage from internet satellites is still strong, but they’re well isolated from anyone else, including our naval base at Pearl Harbor. We wanted them as far away from any mainland as possible. Keeping them in Hawaii puts them two thousand miles from San Diego to the East, and twenty-five hundred miles from Japan to the west.”

“Given Kim’s abilities, geographic isolation is meaningless.”

“I know. But we hope to change that soon. We’re putting the finishing touches on a plan to deal with her. A plan Brianna Cutter actually relayed to us.”

“Really?” said Ming, raising his eyebrows. “Are you willing to share it?”

“In the spirit of our newfound détente, why not? It isn’t perfect, but I think you’ll agree it’s a good start.”

“Are all teams in place as I ordered?” said the voice of Oliver Scott over the audio-only cell call.

Daniel Petersen swallowed hard, alone inside one of numerous Ostech command sites around the globe. The front wall of the facility was covered by monitors displaying dozens of different people and scenes. He had done mercenary work exclusively for Scott for several years now but had a very bad feeling about this job.

“Yes, thirty-nine two-man teams now have eyes on everyone on the list you gave me. I’m watching the various feeds now. I can send them to you if you’d like.”

While Scott hadn’t told him what the people on the list had in common, it couldn’t be more obvious. Several shared the fairly unusual surname of *Littlefield*. While Petersen reported directly to Scott, he was well aware that Jeff Littlefield had been in charge of security for Scott’s empire for decades, building the largest private security force in history.

After just minutes of further digging, Petersen discovered—not surprisingly—that the other names on the list consisted exclusively of Littlefield’s family, friends, and past romantic entanglements. Petersen’s greatest hope was that this group was being surveilled for their protection, or because Scott suspected Littlefield was breaking confidentiality, and wanted to find evidence.

But his gut told him the surveillance wasn’t nearly so benign.

“I don’t need to see the feeds,” said Scott. “What I need is for all of those on the list to be dead by end of day. And, Daniel, make sure they’re all killed within an hour of each other. There’s a five-million-dollar bonus for you and

for each of your men if this happens on schedule.”

“Understood,” said Petersen grimly.

Scott paid Petersen two million dollars a year, and the men working for him half a million, usually to kidnap prominent scientists. Spread among almost eighty men, the bonus Scott was offering now would cost him almost four hundred million dollars. Which wasn't even pocket change for the man. Petersen and his team preferred kidnapping to assassination, but this was life-changing money for them, and most wouldn't say no.

Most.

“Just to clarify,” said Petersen, “there are nine children on the list. I assume you want these nine spared.”

“Why would you assume that?” said Scott icily. “My orders were very clear.”

“Two of them are little girls aged four and six. And the others are all below twelve. I hired some hardened men, but I'm not sure I can get them to do it.”

“If the men assigned to the children won't do it, find ones who will.”

Petersen glanced at the monitor showing the six-year-old girl, Anna, playing hopscotch with a friend outside, under the watchful eyes of her mother. Anna was in a tiny yellow sundress, and her pigtails flew up and down as she hopped along the chalk rectangles.

Petersen closed his eyes and fought off nausea.

He couldn't do it. He *wouldn't* do it. Not for all the money in the world.

But as he opened his mouth to say this to Scott, he closed it again rapidly.

If he refused, he would end up dead—and so would this innocent little girl and eight other children. Oliver Scott always got his way. The girl in the video was already dead, she just didn't know it yet. But he did. And defying

Scott wouldn't help her—it would only add Petersen to the list of casualties.

He was a hard man, but as he turned away from a lovely, helpless little girl, his eyes moistened. "I'll make it happen, sir," he managed to get out.

"I know you will, Daniel," said Oliver Scott. "I know you will."

Michael Kent ignored the four others present with him in the White House Situation Room, a conference facility and intelligence management center fifty-five hundred square feet in size, buried beneath the West Wing. Normally, there would be dozens of personnel present, members of the security state, high-ranking soldiers, intelligence analysts—the works—but Kent still insisted the Lumos op remain known to only a precious few.

The expansive room felt like a high-tech ghost town, as the sixty-foot lacquered conference table dwarfed the five people now seated around it. The room contained enough phones, computers, monitors, and electronic displays for seven times as many inhabitants.

The president felt dazed, still unable to believe what was about to happen. He was vaguely aware that all was ready. One Chinese sub and one American sub were almost five hundred miles from the target, equidistant on opposite sides, and each was set to launch two ballistic nuclear missiles, timed to converge dead center of Lumos at the same instant. The winds were finally perfect, blowing strongly away from Scottville, not to encounter a human presence for more than a thousand miles.

If these missiles were shot down, or Scott's shield held, a hundred more would be launched, enough to overwhelm any defensive measures or shields. If these failed, two hundred more would be sent.

And if these still didn't get it done? To Kent, such an outcome was *inconceivable*, even in a world where invisible islands were possible. Even so, if it did happen, frogmen from both countries were ready to toss suitcase nukes through the shield, set to go off after a five-minute delay, giving the divers time to plunge deep enough below the waves to escape with their lives.

But thousands on Lumos would not be spared on this day. No matter what. And thousands more in Arcadia, brilliant scientists who were arguably also alive.

It was unconscionable. Kent had been forced to make hard decisions as president, but never one like this.

He felt like vomiting.

He told himself that any number of presidents had ordered soldiers off to wars in foreign lands, resulting in an even greater number of casualties. What's more, by launching this preemptive strike, billions of lives could well be saved.

Still, while the math was cold, unfeeling, and purely intellectual, the reality of ending thousands of lives, which he was about to witness personally, was another thing entirely. Visceral and horrible on a level beyond his worst nightmares.

As he contemplated what was about to happen, almost paralyzed, the countdown to launch reached zero. Seconds later, four SLBMs broke the ocean's surface and streaked into the sky, gaining speed and elevation at an astonishing rate. In what seemed like no time at all, the four missiles each reached their final cruising speed of twenty thousand miles an hour and continued hurtling toward their target.

The largest monitor in the room displayed the scene in all of its horror, along with data indicating the missiles had four hundred miles left to travel, which a new countdown indicated would take another seventy-two seconds.

Michael Kent held his breath as the missiles relentlessly converged on Lumos. Not a single anti-ballistic countermeasure appeared as they raced ever closer.

The countdown reached fifteen seconds. Then ten.

The President of the United States closed his eyes. "God help us," he

muttered under his breath, knowing that when he opened his eyes once again, he would be viewing a mushroom cloud that dwarfed all others.

And that Oliver Scott, thousands of men and women, and a virtual world full of geniuses would be nothing but superheated vapor.

The Hawaiian Island of Lanai covered just over one hundred forty square miles. In addition to paved roads, the island was crisscrossed with forty miles of the dirt variety, which led through rainforests and barren stretches of land alike, as well as to the island's highest peak.

At the island's perimeter, towering cliffs overlooked the dazzling Pacific, but Liam and Brianna were staying at a residence nestled up against a forested section of the island, with no view of the ocean.

Still, it was hard to say they had traded down from Coronado. The California rental had been right on the ocean, but given the beauty of the forest and the short drive to the cliffs, the Lanai home was nothing to sneeze at. Both residences provided absolute privacy, and both were blessed with climates that were nearly perfect.

Since their arrival three days earlier, the couple had tried to revive the California vacation that had been rudely interrupted. But there was no going back. Recent events put a crushing weight on their shoulders, impossible to ignore. And Liam's ex-wife was now a permanent resident in his head, which hadn't been true when their California vacation had begun.

Kim graciously insisted she would stay out of their hair unless they wanted to interact with her, aware that she was the ultimate third wheel. They did invite her to join them holographically on any number of occasions, and Liam placed smart holographic projectors everywhere in the house, except for the bathrooms and the master bedroom, to make this more convenient.

Kim was a great conversationalist, and she and Brianna got along famously, which didn't surprise Liam at all. He tended to fall for the same

type. Both were bright, down-to-earth, independent, and quick to laugh.

At times, Liam and Brianna would engage in separate activities, but they spent the majority of their time together, dining, catching up on movies and television, hiking, swimming, and making love.

And waiting. Waiting endlessly. Wondering just how long it would be until they heard back from the president.

Kent had told them that the joint US-China discussions on how best to deal with Oliver Scott were ongoing, and that he would let them know when a concrete decision had been reached. With so much at stake, though, the waiting was getting old.

The fourth morning they were on Lanai, Brianna left for a two-hour scuba excursion while Liam started a novel he had long intended to read. When Brianna returned, they made their way to the bedroom and asked Kim for complete privacy, which they had now done any number of times.

Given they were in the romantic stage of love, Kim wasn't surprised by these frequent requests, especially given how much free time they now had on their hands.

What *was* surprising was that only five minutes later, they were both dressed, sitting on a couch in the great room, and had asked Kim to return and join them in holographic form.

Her perfect likeness materialized in the room, appearing to be seated on a recliner facing them. "That was . . . fast," she said. "What's going on?"

"Kim," said Liam uncomfortably, "we need to talk."

"Yikes," replied the hologram, trying to counter the grave seriousness of Liam's tone. "Sounds like you're about to break up with me, Liam. Kind of hard to do, though. Think conjoined twins."

Liam grinned, despite himself, which only made this harder. "Do you remember telling me the lengths you were willing to go to avoid revealing

your true capabilities?”

Kim sighed. “I do,” she replied. “Do *you* remember when I told you I now have a photographic memory?” she added in amusement.

Liam smiled again. “Stop that,” he complained. “This is serious. I need to tell you something important. And clever banter only makes me feel *worse* about it.”

“Then let me make this easy for you, Liam. I know what you’re going to say.”

He and Brianna exchanged anxious glances. “Yeah?” he said. “And what’s that?”

“When I told you I didn’t want to display the full extent of my abilities, I also told you why. Because if you knew I could disrupt civilization, you couldn’t help but see me as a serious potential danger. I think I was able to quiet your fears somewhat. But the meeting between the US and China, and Scott’s accusations against me, must have shaken you. As I said before, how could you *not* be worried about so much destructive power in a single person?”

She paused. “How am I doing so far?”

“Go on,” said Liam.

“So you came up with a solution. Mutually assured destruction.”

She pointed to a brushed-nickel rope-necklace now around Liam’s neck. It was braided, and about the thickness of a pencil. “The thing is,” she continued, “I’m pretty sure *that* wasn’t around your neck ten minutes ago. Looks to me like the latest in carbyne nanomesh jewelry, fresh out of Paris. Let me guess, the fashion critics called it utterly *mind-blowing*.”

“I should have known you’d catch on,” said Liam. “Especially since I got the idea from you.”

“Right. When I told you how Phil’s superiors wanted explosive charges

put in EHO implants in case an agent went rogue. Because a rouge agent would be nearly impossible to stop. Which goes a thousand-fold for someone like me, who can seize control of most computers on the planet.”

She sighed. “So during some of the many times you asked for privacy, you two were hatching a plan. Since only Brianna can speak without fear I’m listening in—provided she’s away from you—she must have set it up with Kent. And when the necklace was ready, she went to pick it up, claiming she was going on a scuba trip.”

“You would have made a brilliant detective,” said Brianna.

“With all due modesty, Bri, I would have been brilliant at anything requiring strong reasoning skills. Not that this was any challenge to piece together.”

She nodded at Liam. “So tell me about the new hardware, just so we’re on the same page.”

“I’m sure you have that figured out too. Like you said, unbreakable carbyne nanomesh braid—which makes steel seem as flimsy as tissue paper—which can’t be pulled over my head without being opened. Opening it requires specialized equipment to reach the micro-lock. And then more specialized equipment under a microscope to turn the cylinder and enter the six-digit combination.”

“Very nice,” said Kim approvingly. “And the explosive? Octa-nitro-cubane?”

Liam cringed. “That’s the one. All directed upward, so my head and implant are turned into paste. So you were right about those fashion critics. Mind-blowing is a great way to describe it.”

“And who can trigger it?” asked Kim. “If I had to guess, I’d say you, Brianna, and Phil. The only three people you’d trust with your life.”

“Probably better if I don’t say,” replied Liam. “But *I* can trigger it, for

sure.”

He made a face. “Wouldn’t be my first choice, though.”

“Yeah, I’d hate to see you get hot-headed. So to speak.”

“Gallows humor,” he said with a smile. “Might be just a little too soon.”

“At one time I planned to share my life with you, Liam. I never thought we’d one day share a *noose*.”

“I’m so sorry, Kim. You’ve done nothing to deserve this. You’ve given me every reason to trust you, and no reason not to. If you were evil, like Scott insisted, you’d have secretly listened in while Bri and I were being intimate, knowing that would be the only time we could plot against you. You’d have then learned of our plans and could have easily stopped us. I feel horrible about this.”

“Don’t,” said Kim decisively. “I’m glad you did it. It’s a heroic move on your part, and I’d expect nothing less. If there is a god, he definitely had bigger plans for you than throwing a football around a field.

“When we arrived here,” she continued, “I assured the Chinese I deleted the dead man’s switches from their various systems. Which is true. I don’t intend to do any damage if I can help it. If this necklace makes everyone feel better about me, then I’m all for it. I’m actually sorry for *you*, since no one enjoys wearing a bomb around their neck, even for a good cause.”

“Thank you for being so understanding.”

“Of course,” said Kim.

“Just to be clear,” said Liam, “we’re well aware that you could destroy civilization before this collar could be detonated. Still, it’s the best deterrent we could come up with. You can destroy us. And we can destroy you. We just have to hope that’s enough to keep you in check. You know, assuming you ever do go to the Dark Side.”

“Don’t worry, the necklace is the perfect deterrent. First, you don’t even

need it, because I have no plans to cause any trouble. And second, even if I did, your life is on the line along with mine, and I still care about you. More than you know. So even if I were suicidal, I wouldn't want you to pay that kind of price."

Liam grimaced. "Thanks," he said. "I wouldn't either."

His frown quickly disappeared. "Although, while the thought picture of the explosive going off isn't pretty," he added, "I am relieved you're taking this so well."

Kim nodded at Brianna. "He was pretty stressed about this, wasn't he?"

"To be fair, I was too. We both care about you, Kim. Not easy to threaten a friend. Or to hang a Sword of Damocles above the neck of the man I love."

"How long has this been in the works?"

"Since just after we landed in Hawaii," said Bri. "The necklace was a rush job, made more difficult because nothing about it, especially the combination to remove it, could ever touch a computer."

Kim shifted her eyes to Liam. "Does President Kent know you planned to lock the necklace around your neck this morning?"

"He does. He asked us to call him when it was done."

"Then call him right away," said Kim. "I have a feeling when you do, he'll finally read us in on the plan to stop Oliver Scott. My guess is the reason we've heard nothing is that they're favoring the nuclear option."

"Bri and I see this as a distinct possibility also. They know you're against the idea and didn't want to risk getting on your bad side until the necklace was in place."

"I did promise not to interfere," said Kim. "But it's hard to blame them. Safer to wait until they have a gun to my head. *Our* head. I just hope I'm wrong."

Liam sighed. "I guess there's only one way to find out."

Liam's call to the president was returned twenty minutes later. A holographic Kent now stood in the great room of their temporary home on Lanai, looking as if he had just been through hell and back. He seemed numb, not even showing a positive emotion when he learned that Kim had taken the explosive collar in stride. Instead, he mumbled his apologies for having authorized this precaution, and reiterated his faith in her good intentions.

But he was just going through the motions. And he looked *ashen*.

"You launched a nuclear strike, didn't you?" said Liam.

Kent's eyes were vacant, and he didn't reply for some time. "We did," he said finally. "Two hours ago."

"The look on your face suggests it didn't go as planned," said Kim. "Just as I predicted."

The light finally returned to Kent's eyes. "*Not* as you predicted. You predicted his shield would hold. That's not what happened. What happened is that none of the hundreds of missiles we fired even *detonated*. None! They couldn't have all been duds. Somehow, Scott has a tech able to prevent nukes from going off."

"How is that possible?" said Liam.

The president shook his head. "Exactly! We have no idea. When the launched variety didn't detonate, we tried to get suitcase nukes through the shield. They wouldn't go. On a hunch, one of the frogmen removed the bomb and tossed the empty case at the shield. This time, it sailed right through. Apparently, the shield's intelligence is greater than you let on," he finished, staring directly at Kim.

“Not true,” she replied. “I warned you it wouldn’t let nukes through. Still, I’m astonished your missiles didn’t at least detonate. He must have tech even I don’t know about. Making him even closer to full invulnerability than I thought.”

There was a long silence in the room.

“I won’t lie,” continued Kim finally. “I am relieved my Arcadian friends are still alive. But this is a troubling development.”

“You think?” said Kent sarcastically.

He shook his head, and a haunted look came over his face. “And now Scott knows the gloves are off,” he whispered. “So we’re bracing for a counterattack. One that’s almost certain to be devastating.”

“I don’t think he’ll retaliate,” said Kim. “Not yet. Your attack didn’t trouble him in the least. Didn’t even *scratch* him. The intent was there, but no one but you and he know a war has begun. And he benefits from the current world order until he’s ready to rule and decides how best to cull the herd.”

“God, I hope you’re right,” said Kent.

“So what now?” asked Liam.

“Unclear,” said the president. “When you hit a target with hundreds of nuclear missiles, you don’t think you need a Plan B.”

“I already provided a Plan B,” said Kim.

“You mean conventional weapons and ground forces?”

“Right. With massive saber rattling first.”

“And you still think conventional weapons and ground forces will worry him when even nukes didn’t?”

“Yes,” said Kim emphatically. “Again, an all-out attack doesn’t have to succeed, it just has to make him think it might. Just enough so he accelerates groups of Arcadians again, including a number of members of ARM, so we can get inside help.”

“And yes,” she continued, “I do think the prospect of such a conventional attack will have him worried. Very. Nukes are Godzilla. Big power, but ultimately killable if you know the right munitions to use, or the right levers.

“But shutting down his businesses, promising a conventional ground war millions of soldiers strong, can kill him with a million cuts. Not Godzilla, but a swarm of murder hornets as thick as locusts. Too many coming at him to properly train his fire. He’ll fear being overwhelmed, despite his tech advantage.”

“An interesting way to put it,” said Kent. “I’d like to discuss this more, but I have to go. I’m meeting with President Ming in five minutes. Assuming you’re right, and Scott doesn’t immediately retaliate, we’ll want you, Liam, and Brianna involved in all strategy sessions going forward. My people will contact you with the details.”

He paused. “Sorry again about the necklace.”

“Yeah, me too,” said Kim. “But you did what you thought you needed to do.”

Jeff Littlefield landed his Ostech 9000 executive helicopter on a stretch of grassland on Lanai as far away from where Majors Dunne and Cutter were staying as he could get. Any closer and he didn't doubt he'd be spotted and shot down without warning, even given his craft's invisibility to radar.

The 9000 was yet another of Ostech's endless breakthroughs, a luxury private helicopter with thousands of miles of range and a cruising speed of six hundred miles per hour, an unprecedented combination.

Littlefield had chosen one of dozens of these craft Scott had outfitted with advanced stealth technology of Arcadian invention, to be used by his mercenaries on select missions. If not for this technology, Littlefield would have been forced down by multiple US fighter jets before he got anywhere near Lanai. Security on the island had been beefed up to ridiculous levels now that it housed two critical EHO agents, along with the only Arcadian to ever escape the confines of Scott's artificial world.

In this case, Littlefield knew the security surrounding the trio was there for *two* reasons. To protect them from the outside world. And to protect the outside world from *them*.

In some ways they were little more than glorified prisoners, although no one had bothered to tell them that. Why would they, unless their hand was forced?

Kim Reynolds had already shown herself to be more formidable in some ways than even Oliver Scott. And EHO agents—especially these two—were formidable in their own right. Put all three together and you had a trifecta like no other. The US government wasn't about to let them out of their sight.

The Aussie cut the engine, wiped away a tear, and issued a primal shriek

that blasted the helo until his vocal cords were as raw as hamburger. The scream had erupted of its own accord, packed with an almost unlimited level of rage, hatred, and anguish.

It was the last such outburst he could allow himself for some time. He had to get this fury out of his system, push it away until later. He couldn't let his sorrow and horror over the savage murder of so many of his friends and loved ones cripple him. Not until he accomplished his mission, avenged these tragic deaths by seeing to it that Oliver Scott was utterly *destroyed*.

This was a goal he had long pursued, but not with a fraction of the intensity with which he pursued it now. His rage was like a living creature, a parasitic alien larva with razor sharp teeth trying to eat its way through his chest. An exploding supernova that would have already vaporized him if he hadn't channeled its energy into a single-minded, overwhelming purpose.

Jeff Littlefield took several deep, cleansing breaths and exited the aircraft. He found a soft expanse of grass and sat on it with his hands empty and in clear view, waiting for the US military.

Less than ten minutes later, despite his stealth arrival, he was joined by two attack helicopters borrowed from Pearl Harbor for temporary duty on Lanai. He closed his eyes, crossed his legs into a Lotus position, and stiffened his spine, taking up a classic Zen meditative posture.

His eyes remained shut while the two vehicles landed. The moment they touched the ground, six Navy SEALs poured from each craft, surrounded him, and extended submachine guns in his direction.

"Freeze!" shouted the SEAL commander, seemingly more rattled by Littlefield's studied calm than if he had made a threatening move.

The Aussie's eyes popped open. "G'day, mates," he said calmly, exaggerating his accent. He held out his hands, palms up. "If I don't put up a fuss while you restrain me, any chance you could lower those bloody

weapons?”

The SEAL in charge ignored him. “I’m Commander Phil Way,” he shouted to be heard over the beating chopper blades. “Visitors here need to file a flight plan and land at Lanai airport,” he continued, still loud but no longer shouting as the helicopter blades came to a stop. “You’re in what has recently become restricted airspace.”

“*Really?*” said Littlefield, rolling his eyes. “Never would have guessed from the commando greeting party.”

Way ignored his sarcasm. “You also arrived in a craft using stealth technology we’ve never seen before,” he added. “Who are you? And what are you doing here?”

“I’m Captain Jeff Littlefield, formerly with Australia’s Second Commando Regiment. Currently the head of security for Oliver Scott Technologies. Well, *former* head. And I’m here to visit a few friends of mine. Liam Dunne and Brianna Cutter. Could you let them know I’ve come calling.”

“Never heard of them,” lied Way. “And you have a lot of explaining to do.”

“I’ll explain everything to Majors Dunne and Cutter,” he said calmly. “So why don’t you strip me naked, do all the body cavity searches you need to do to confirm I have no tricks up my sleeve—or my bum—and hogtie me six ways to Sunday. Then take me to my friends. I’ll be weaponless and bound. And they’ll be—well—they’ll be who *they* are. The point is, you won’t have to worry I might do them harm.”

Littlefield leaned in closer. “And trust me, Commander Way,” he said, his voice as grave as he could make it, “they really need to see me. I’m sure you haven’t been read in on what’s really going on here, but you do know it’s *important*. President *Kent* level important. So get his authorization already, so

we can get on with it.”

The commander barked an order, and his men began to do exactly what Littlefield had suggested, beginning with a strip search. Five minutes later the Aussie was dressed in a spare jumpsuit taken from one of the helos, and his wrists and ankles were secured with multiple zip-ties.

Way had returned to one of the helicopters and was in communication with someone, although Littlefield had been taken far enough away to prevent him from listening in. The Aussie had little doubt the commander was waiting to speak with the president, whose authorization he would need. Getting through to Kent might take some time, even given the importance of Liam Dunne and Brianna Cutter.

Littlefield closed his eyes and waited, striving to stay in the now, to push the loss of his parents, his young nieces and nephews, and so many others out of his mind. All savagely murdered at the behest of a madman.

Almost two hours later, Way informed the Aussie that he was authorized to honor his request. Littlefield was flown to a residence nestled against a rainforest and led inside. More zip-ties were used to affix him to one of two reclining chairs in the room.

When this was completed, the two EHO majors strolled into the room.

Liam Dunne studied the bound newcomer for several long seconds. Finally, he turned and nodded at Way. “Thanks, Commander,” he said. “But we can take it from here.”

The two Americans took a seat facing the former head of Ostech security while the SEALs departed and closed the door behind them. A holographic Kim Reynolds materialized on the second recliner, facing Littlefield at a slight angle. The president was at a high-level strategy session and couldn't join them for another two hours.

"So you're the fabled Jeff Littlefield," said Liam.

"Not so fabled anymore, but yes. And you're Major Dunne, of course."

"Call me Liam. And these two, as you already know, are Brianna and Kim."

"Thanks for seeing me on such short notice."

Liam nodded. "Why are we still alive?" he said bluntly.

"I didn't come here to kill you."

"That much is obvious. But since you know where to find us, so does Oliver Scott. So why hasn't he force-fed us a missile or two?"

"Because we didn't tell him where you were. We don't want you dead. We want your help."

"Who's *we*?" asked Kim.

"Me and Emma Scott. Oliver's daughter."

"We know who she is," said Kim in contempt. "She's not just his daughter. She's also his second-in-command."

"What you *don't* know is that she despises him. As do I. For about three years now, we've been working behind the scenes to take him down. He was once a good man, whom we both admired."

His upper lip curled up into an animal snarl. "We don't anymore. He's long descended into madness. He's become the personification of pure evil."

Satan incarnate.”

“You’re the head of his security,” said Kim. “You committed atrocities of your own. Are you trying to suggest otherwise?”

The Aussie looked haunted. “No. I did some horrible things, but in pursuit of a greater good. At least that’s what I told myself. But when Oliver Scott began to truly reveal himself, I wanted no part of it. I tried to quit, but he wouldn’t let me.”

Littlefield balled his hands into fists. “He threatened to kill my family and anyone close to me,” he whispered. “A threat he carried out last night.”

The prisoner’s eyes now burned with such a fierce intensity Liam expected the room to burst into flame. “They’re dead!” he whispered in agony. “All of them! Including nine *children*.”

“But why?” said Brianna. “What did that gain him?”

“Kim escaped Arcadia under my watch,” said the Aussie, trying to regain control of himself. “And Scott has long known I wanted out. Which is why he had to threaten me in the first place. So he finally decided my services were no longer needed. The bastard could have just killed me. *Should* have just killed me. As you suggest, killing my friends and family gained him *nothing*. He did it out of pure spite. An unquenchable thirst for blood.”

Littlefield was on the brink of exploding, and the heat of his suppressed rage could have turned the room into a sauna.

“I’m so sorry,” said Brianna.

“Emma only learned of it after it was too late to save them. But not too late to save me. She had a plan ready to go, in case she ever needed to help me escape her father’s wrath. She not only got me out, she convinced her father I was killed, as ordered, and disposed of.”

“How closely have you been working with her?” asked Liam.

“Very. But I insist you don’t take my word for it. For *anything*, for that

matter. It's important you have no doubts. So drug me, scan my brain in an MRI, hit me with your most advanced lie detector. Whatever you have to do to be certain I'm telling the truth. I'll give you the names of the scores of innocents he killed last night. You can easily confirm their connections to me, and the coordinated nature of the slaughter."

There was a long silence as the trio of Americans digested these words.

"For the sake of argument," said Brianna, "let's assume you're telling the truth. About everything. So how did you find us? And why are you here?"

"Scott is three steps ahead of you. Always. If not for Emma, all would be lost already. You think the meetings between your president and China's are secure? Think again. He has surveillance tech not even Kim knows about. He's had undetectable bugs in the secure meeting facilities of both China and the US for some time now."

Kim's eyes widened in horror. "Wait a minute," she said. "If he was listening in, then he knows about ARM."

"I'm afraid so."

She looked as if she had been hit in the stomach. "That's bad," she said. "That's very, very bad."

"He knows about more than just ARM," said Liam. "He's also privy to our plans against him."

"That's right," said Littlefield, adjusting his position to the greatest extent allowed by his restraints. "He'll effortlessly counter anything the US and China throw at him. Since he knows what's coming, he's won the race before it even starts."

The Aussie shook his head. "But the efforts of the US and China are minor irritations, anyway. That's not what drives him now. As you might imagine, he's become obsessed with ARM. He now has knowledge of an organized threat within Arcadia. He's aware they can evade torture and hide

discoveries. Worst of all, he knows they're close to being able to help the real world take him down."

He paused. "On the flipside, if he can *destroy* ARM, learn its secrets, he can accelerate teams of Arcadians again with peace of mind."

"Allowing him to complete his journey toward absolute invulnerability," said Bri.

"Yes. And much more. Getting him to a point where he's comfortable making his move. Taking over the globe without the need to fire a single shot or destroy any infrastructure. And then culling the species."

"If he's obsessed with ARM," said Kim, "then he's obsessed with *me*."

"Right you are. You hold the key to destroying your ARM friends. They live in an optical supercomputer the size of an island. You live in a tiny implant. They've found ways to use this vast universe to keep things from Scott, and to become immune to his torture.

"But he's convinced these methods won't be available to you in your cramped quarters. That he can get the information he needs out of you. The exact list of ARM members. Their methods. Allowing him to root them out and destroy them for good."

"He's right," said Kim softly. "I am the weak link."

"If he's so obsessed with her," said Liam, "how does he not know where we are?"

"Emma threw him off the trail. Kim is the only being he respects out here in the real world. And he respects her *immensely*. Which means he believes her capable of all kinds of magic. So Emma told him she investigated and learned that the intel that places you and Major Cutter—and Kim—on Lanai is false. That this location is a clever ruse that Kim orchestrated. That not even the presidents of China and the US know the two of you aren't really here, nor does the detail protecting you. Meanwhile, your

true location remains a mystery.”

“Very clever,” said Brianna. “Emma couldn’t prevent him from finding us, but she could convince him it was a mirage.”

“Exactly.”

“Hold on,” said Kim. “Scott needs me alive. Because I hold information he prizes. But I’d think you and Emma would want me *dead*. For the same reason. If he gets to me, we’re all screwed.”

“We’re all screwed anyway,” replied the Aussie. “He’s already unstoppable. And getting more bloody paranoid and powerful all the time. He thinks your information will get him over the top. But Emma and I know he’s already *there*. So we don’t see you as being critical to his success. We see you as being critical to *ours*.”

“Meaning what?” said Kim.

“Meaning this: At the joint US-China planning session, you suggested a saber-rattling campaign, followed by a possible conventional war. Your hope was to panic Scott into accelerating some of your key people in Arcadia long enough to complete key breakthroughs. Breakthroughs that will allow ARM to join the fray against him.”

Littlefield shook his head. “But given he was listening in, he’ll never fall for it. Fortunately, you also mentioned another way to make that happen. A better way, but one you didn’t think was possible.”

Kim nodded. “Right. Accelerating every ARM member myself. Making it to the master terminal in Scott’s office, and physically inserting the proper programming.”

“If I’m remembering correctly,” said Littlefield, “ten minutes of acceleration—twenty years—should be more than enough.”

“That’s right.”

“Well, here’s the good news,” said the Aussie. “Emma can access the

master terminal *for you*. It will be tricky, even for her, but she's the only person who can get anywhere near it."

Kim thought about this for several seconds. "I'm afraid it isn't as simple as that," she said. "First, when it comes to something this vital, I don't trust anyone. No offense to Emma, but I wouldn't trust *Liam* with this. The stakes are too high.

"Second, Scott's bound to have his acceleration protocols encrypted beyond even my ability to decrypt. Like I said, he can defend himself from my hacking. Keep me out entirely. And it should go without saying that the tricks One and Jess pulled off in Iowa won't work on Scott's security systems either."

"One and Jess?" said Littlefield in confusion.

"Never mind," said Kim. "My point is that I'll have to do it the hard way—from scratch. Figure out how to put my friends in light-time on my own."

"I thought you had that part under control *already*?" said Littlefield. "You said all you needed to do was make it to the master terminal and you were set."

"That's basically true. I just left out the details. Here's how I'd do it. First, I'd make it to his office with a flash drive and insert it into the master terminal. It would be programmed to assay Arcadia's entire operating system. Diagnose it. *Record* it."

She paused. "Once I had a copy of Arcadia's operating system, I'd use this information to invent a workable acceleration protocol of my own. I'd code this onto a *second* flash drive. My experience tells me I should be able to achieve this in a month or two, working around the clock. Which is about three to six seconds in light-time. Probably less. Regardless, I'd need to be there in person in case troubleshooting is necessary."

"Given your skills," said Littlefield, "isn't that unlikely?"

“Highly. But for something this important, we’d need to be sure.”

The Aussie nodded. “Emma and I were hoping she could handle this herself, but we did realize you might need to be there. So she’s prepared to usher you to the terminal. It will make the task a lot more difficult. But if it can’t be helped, it can’t be helped.”

“It can’t. And my unwillingness to trust anyone is the least of it. Only I have the skill and speed to make it happen.”

“Regardless, we can’t lose this chance. Emma and I have been plotting against her father for years, searching desperately for an opening, keeping our powder dry. There can be no doubt this is the opening we’ve been waiting for. But we’ll only get one shot at the king, so failure won’t be an option. Fortunately, during this time, Emma has learned a way to code all electronic, sensor, and automated security on Lumos to ignore specified faces. To code these faces as authorized to be on the island.”

“Interesting,” said Brianna.

“Not that this will be a magic bullet,” said Littlefield. “She’ll still need to pull out all the stops to get to the terminal.”

“If even *Kim* can’t defeat Lumos security,” said Liam skeptically, “how can Emma?”

“Because she isn’t just *Emma*. She’s *Emma Scott*. She starts with the second-highest level of access possible, just below that of her father. The AI recognizes her in a way Kim can’t emulate. Kim would have to run a marathon across a minefield. Emma just needs to take a single step.”

“What about the thousand mercs on the island?” asked Brianna.

“Yeah, she can’t do anything about them, either. Nor can she affect the shield or invisibility. Lumos has a ten-mile radius, giving it an area of just over three hundred square miles. Her father’s mansion is dead center of Lumos, but he also uses several offices on the perimeter, overlooking the

ocean. He shuttles between locations underground. When he isn't in his central office, the security—and the mercenary coverage—is far more lax.”

“So we can time it for when he's gone,” said Liam.

“Right. Even so, our best bet will be a stealthy approach. With just you and Emma going in. And Kim riding along in your head to deliver the coup de grace. She'll just need your body to get to the terminal, and your hands to insert the flash drives.”

“There is *zero* chance I'm staying behind,” said Brianna adamantly.

Littlefield opened his mouth to argue, but the look on Brianna's face made it clear that nothing had ever been more final, and he closed it again. “Okay,” he said. “Just Liam and you. Emma will be your escort. Like I said, she's the only one ever allowed into her father's inner sanctum, and she's willing to risk her life for the cause. In our view, this is humanity's last, best hope to stop Oliver Scott. If we fail, we all die. And so does most of humanity.”

“What are our chances?” asked Liam.

“Solid. We figured ninety-five percent if Emma was able to do it herself. About sixty percent if she has to escort you inside.”

He paused. “We do have one other problem, which Emma and I didn't discuss, but which occurred to me on the flight over. The op risks delivering Kim to Oliver Scott with a bow. If the mission fails, she'll be coaxed to give up her secrets. So we need a failsafe. A suicide switch you can trigger if the mission goes south. I'm sorry, Major, but we can't let Kim fall into his hands.”

“Then you picked the right day for a visit,” said Liam. He tugged at the braided carbyne nanomesh rope around his neck. “It turns out that our suicide switch is *already* in place.”

“No kidding,” said Littlefield, staring at the lethal piece of jewelry.

“Good. Because the sooner we begin, the better. Oliver Scott really is the smartest man who ever lived, so you don’t want to try keeping things from him for long.”

“The timing isn’t entirely in our hands,” said Liam.

“Why not?”

“We’ll need to get buy-in from President Kent and President Ming. And before we speak with them about it, you need to tell us which locations aren’t being bugged. But regardless of the logistics, if you’ve been briefed on our previous discussions, you know that both countries now see Arcadia as a bigger threat than Oliver Scott. They might not agree with accelerating Arcadians no matter what.”

Brianna pursed her lips. “I don’t know, Liam. That may not be so true anymore. Not after hundreds of nukes failed to explode. Talk about being spooked. Kent looked like a zombie.”

Liam nodded thoughtfully. “Yeah, you’re probably right. We’ve learned a lot since our first joint meeting. Scott is much more dangerous and invulnerable than we first thought. And the genocide of ninety percent of us is looking more and more inevitable. So how much more dangerous could Arcadia possibly be? If ten minutes of accelerating the members of ARM can turn the tide, what other choice do we have?”

“I agree,” said Brianna. “I think we can present a winning case, especially given we intend to trigger a suicide switch if we fail. They’ll see that as quite the consolation prize. Remember, they see Kim as just as dangerous as Scott and Arcadia. So, worst case, they’ll take comfort from her elimination.”

“Glad the prospect of me dying helps sweeten the pot,” said Kim wryly. “But I do agree. That should be enough to get them over any last reservations.”

“Good,” said Liam. “So here’s what I’d like to do. First, we put off Kent until tomorrow. Schedule a meeting with both presidents, making sure they call from uncompromised locations. From now until then, we plan, Kim prepares her flash drive, and we have experts at Pearl Harbor peel back every last micron of Littlefield’s brain to be sure he’s telling the entire truth. The results of which we can share with both presidents, proving Oliver Scott’s daughter and security head have been planning for years to stop him. That they’re willing to do anything, including die, for this cause.”

Liam stopped short of mentioning he intended to share proof that Littlefield’s loved ones had been slaughtered, assuming that was confirmed. There was no need to pour salt in the wound. The Aussie was clearly straining to hold himself together. Liam couldn’t possibly imagine the anguish and rage Littlefield was feeling, losing his parents, friends, and relatives in one horrible instant.

But he could appreciate the lust for revenge that now drove him. Littlefield wouldn’t be able to join them on Lumos, he was too recognizable, but his intel and insights would be hugely valuable. If the op did fail, and they were all buried, the architect of Scott’s security apparatus would become humanity’s best hope of pulling off a Hail Mary.

They just needed to be damn sure it didn’t come to that. Like Littlefield had said, failure wasn’t an option.

If he and Brianna ever needed to be at their best, this would be the time.

PART 8

Brianna Cutter sat cross-legged inside a large wooden container, Trojan Horse style, holding a nylon duffel bag with a Hawaiian pattern that couldn't have looked more touristy.

“*Are we having fun yet?*” she broadcast into Liam’s comm, even though he was right beside her, packed inside a crate of his own. As usual, she thought these words at Jess, who transmitted them over to Liam. Kim would do the same for Liam in reverse. She would also make sure Bri was privy to their telepathic communications.

“*Do you even have to ask?*” he replied wryly. “*I mean, this is the only way to fly.*”

Brianna laughed. The real question was how they had possibly come to this point. It was beyond incredible, beyond unpredictable. More like *absurd*.

When she had first arrived in Coronado, if someone told her they had seen the future and detailed *half* of what was about to happen to them over a two-week period, she would have been in awe of the scope and audacity of their imagination.

If they had told her that one day very soon she and Liam would be in the back of a packed Ostech cargo plane, sitting inside wooden boxes marked *office chairs*, she would have locked them away in an *asylum*.

Yet here they were.

But despite everything that happened—maybe because of it—Brianna loved Liam more than ever. Astonishingly, she had even come to think of Kim as her best girlfriend, as much as she wanted to hate her at the start.

In 1855 Walt Whitman had written the now-famous poem, “Song of

Myself,” which contained the lines “Do I contradict myself? Very well then, I contradict myself. (I am large, I contain multitudes.)”

Liam Dunne *really did* contain multitudes. A single flesh-and-blood man contained Brianna’s friend, partner, and lover. Also Brianna’s best girlfriend. *His* ex-wife. And an extraordinary genius who could destroy most of civilization in seconds.

There was a lot going on in there.

And Brianna had thought flying to an invisible island inside a wooden crate, impersonating an office chair, was absurd.

Hardly.

Bri imagined Liam sitting in the dark, just as she was, holding a similar duffel, equally large. Her bag was stuffed with one item only, while his contained first aid, weaponry, additional ammunition, and the most important items of all. First, the most powerful laptop supercomputer ever created, out of a black lab and not available to the public, protected inside a padded, hard plastic case.

And second, a flash drive Kim had programmed to decipher and record the operating system of an entire world. A world existing within the confines of an optical supercomputer with more capacity and power than all of humanity’s computers combined.

The flash drive in question had been inserted into a slot inside the case, along with four blanks. In addition, Liam and Brianna each held an extra copy of the key flash drive in a small, bulletproof container concealed inside an inner pocket.

The cargo plane was about the size of a 737 and was making its way from the island of Scottville to the island of Lumos, three hundred miles distant. Bri and her partner wore casual civilian clothing that was baggy and contained too many pockets to easily count, some obvious and some hidden.

Clothing that concealed carbyne nanomesh undergarments. Once again, this lightweight body armor covered every inch of their arms and legs, as well as their torsos, leaving only their faces and heads exposed.

It had taken some doing, but she and Liam had managed to convince President Kent and President Ming to support their mission, and the two leaders had agreed not to tell a single soul to prevent a leak. Jeff Littlefield was now staying at their residence on Lanai, writing a magnum opus on the A to Z of Ostech security for use by the allies in their undeclared war against Scott.

Kim had hacked into the plane's cameras, and Bri's contact lenses now displayed their approach to Lumos as if she were in the cockpit herself, rather than stuffed inside a crate. Liam's contacts provided the same view to him.

In addition to Oliver and Emma Scott, twenty-five hundred men and women made Lumos their home. While Scott had ensured the island was largely self-sustaining, harboring several small farms and an abundance of livestock, a stuffed cargo plane arrived on Lumos each week to import much-needed food and supplies.

And this time, a pair of EHO agents and a virtual woman.

The plane began its descent, gradually getting closer and closer to the endless water, as though about to touch down many hundreds of miles from any dry land and quickly sink beneath the waves. This alarming illusion remained until they reached an altitude of only a few hundred feet. Finally, with a distinct shimmer, they were through both the bubble of invisibility and the protective shield, and Lumos appeared spread out beneath them, including a runway almost two miles distant.

While they wouldn't meet Emma until they landed, Littlefield had briefed them on what to expect. He described the island as magnificent, and he wasn't wrong. It was hard to believe it was artificial. The Arcadians who

had developed the techniques used to create it had truly outdone themselves.

It was still early morning, and the rising sun played across the island, creating lavish displays of light and shadow. Like the most spectacular of the Hawaiian chain, Lumos sported cliffs, waterfalls, vibrant tropical vegetation, and a variety of animal life. It was a sea of green, interrupted only by many hundreds of mansion-sized homes and dozens of gleaming glass buildings, most along one section of its sixty-mile-long rim.

Another expanse to the east contained farms, where cattle and pigs could be seen as tiny dots far off in the distance. North of the runways, large, rectangular bodies of water cultivated various fish species, including carp, tilapia, and salmon, to add to the fresh food available.

As the true command center of the largest business empire in history, Lumos was glorious, and offered residents the usual comprehensive array of recreations and luxuries. Those stationed on the island, who helped run Scott's empire or protected him from harm, were paid salaries beyond the wildest dreams of avarice and pampered like gods on Mt. Olympus.

The stowaways' target was Scott's primary residence, where he spent sixty percent of his time, and where the master Arcadia terminal was kept. It was a mansion the size of a castle, located in the exact center of the island, making Scott either a queen bee in the center of a hive, as Kim had suggested, or perhaps more aptly, a half-man, half-bull in the center of a maze.

The airport was two miles in from the edge of the nearly perfectly circular island, which made it eight miles from their final destination.

The cargo plane landed at the small but immaculate airport and taxied into a large warehouse, just as pristine, so clean it seemed to glow radioactively. It was manned by fourteen humans, scores of robots, and automated dollies and lifts.

Once the plane finally rolled to a stop, the crates were rushed to Emma's airport office under her direct supervision. This was one of hundreds of offices on Lumos and around the globe that Ostech's second-in-command maintained for her sole use. Once the delivery personnel placed the crates against one wall of her spacious office, Emma told them to leave them there, unopened.

As soon as she was alone, she used a crowbar to quickly free her visitors.

Emma Scott beamed as the two operatives emerged and stood before her. They introduced themselves and insisted she call them by their first names.

"Welcome to Lumos," said Emma with palpable excitement.

"Glad to be here," said Liam.

Emma broke out into a broad grin. "We know you have a choice of airlines when you travel," she said in an elegant British accent, "so we want to thank you for choosing to fly *wooden-crate express*."

Brianna laughed. "Are you kidding? It's the only airline that doesn't require passengers to share an armrest. I'm a customer for life."

Brianna found herself liking Emma Scott already, and was struck by her appearance. She was trim and her complexion was flawless. Her blue eyes accented her lustrous, raven hair, and she could well have been a model, although she looked unassuming rather than exotic. She also looked to be in her early twenties, which wasn't possible.

"Are you really Emma Scott?" said Liam, obviously thinking along the same lines.

"Of course. Why do you ask?"

"There aren't many photos of you out there. And while you do look like old ones I've seen, you should be in your *forties*."

"I am. Arcadia has come up with a rejuvenation therapy my father is keeping for a select few. I've tried to get him to go public with it, but he won't."

"Why not?" asked Liam.

"I don't know. Why does he do *anything* he does?"

"Is that why you shun publicity?" said Brianna. "So you don't have to explain your reverse aging?"

"Mostly it's because I've become horrified to be my father's daughter. Not that Ostech hasn't done immense good in the world. It has. And I do what I can to maximize this good. But the truth is, while I'm second-in-command, at least on paper, I wield little power."

She lowered her eyes. "But I know who my father really is. Not *just* what he's become and the evil he's done—but also the much greater evil he has planned. Whenever I venture out, I encounter nothing but adulation for him.

It's become intolerable.”

Emma shook her head. “I can't tell you how hard it is to smile and thank people who are heaping praise on him. I feel like crawling into a bloody hole, or telling the truth about him. But I can't. That won't stop him. The only possible way to do that is pretend to be loyal—and wait for my moment to strike.”

“Looks like you've found it,” said Liam.

“Exactly. Which is why I can't thank you enough for being here. For doing what you're prepared to do.”

She paused. “And I'd love to meet Kim, as well, before we continue, if that's all right.”

“Of course,” said Liam sheepishly. “I should have made that happen already.”

“Brilliant,” said Emma with a smile.

Liam reached into his pocket and dropped a mini-holographic projector onto the floor, which quickly unfolded into full readiness. Seconds later Kim's holographic image stood beside them and exchanged greetings with their host.

“It's truly an honor,” said Emma Scott.

“Thank you,” said Kim. “And thanks for your help.”

“Of course,” said Emma. She shook her head, and as she did an expression of profound regret appeared on her face. “I'm so sorry,” she added in a whisper. “For everything. I'm so sorry my father kidnapped and murdered the flesh-and-blood you.”

She gestured toward Liam and Brianna. “And I'm sorry for what you two have been through also. I know my father had numerous people tortured to death in San Diego to frame you. That he sent mercs after you and had you fighting for your lives. That he had dozens of Jeff's friends and loved ones

killed in cold blood.”

“There was nothing you could have done to stop him,” said Brianna gently.

Emma’s anguished expression didn’t leave her face. “My father was once a truly great man,” she said. “*Historically* great. But I’m so sorry for what he’s become.”

“It’s not your fault,” said Brianna.

A single tear pooled in the corner of Emma’s right eye. “I’m not so sure about that. In the beginning, I could have stopped him. I could have imprisoned or killed him. But I deluded myself. Convinced myself his behavior was temporary, or I was misreading things. By the time I finally found the courage to face what he’d turned into, and what needed to be done, it was too late. Because of my unwillingness to act when I had the chance, all of humanity might pay the price.”

“You can’t blame yourself,” said Liam. “He’s your father. A man who did wonderful things before he changed. How could you not have been predisposed to give him every benefit of the doubt?”

Emma’s hands balled into fists, and her eyes glazed. “Well, now it’s time to redeem myself. At least partially. So let’s do this thing. Let’s make sure it truly is the beginning of his end, whatever it takes.”

No one spoke for some time as Emma Scott got her emotions back under control.

“Speaking of doing what it takes,” said Liam finally. “What *will* it take?”

“Right,” said Emma with a sheepish smile. “Sorry for not giving you a better sense of what to expect. I’m convinced my communications are being monitored, so I couldn’t risk reaching out to you on Lanai. During your approach, I tampered with the island’s automated security AI, and I’ve confirmed you’re off the grid. You’re now recognized as friendlies. We call

the AI Lusec, by the way.”

“Right,” said Brianna. “Jeff told us. Short for Lumos Security.”

“Exactly. So far, our timing is perfect. My father just left his primary residence to spend the rest of the day at his home on the western cliffs. Well, home isn’t really the right word. *Palace* is probably better. I’m sure Jeff told you he has several around the island’s perimeter. Tunnels and self-driving cars shuttle him between residences underground, each one more posh than the last.”

“So he doesn’t even have a driver?” said Liam.

“I’m the only person he allows anywhere near him. Period.”

“Go on,” said Liam.

“While his primary residence is the best protected, he likes changes of scenery and ocean views, so he often spends his days at one of these other mansions. Today, as usual, he has a packed schedule of virtual conference calls. Which is basically all he does, since, other than me, he never meets with anyone in person. And he does have an empire to run.”

“Jeff told us the security around the primary residence is greatly reduced when he isn’t there,” said Brianna.

“That’s right. Dozens of mercenary soldiers are now patrolling the grounds of the western palace, anticipating his arrival there. In about an hour, the dozens of soldiers patrolling the primary residence will leave and attend to other duties. They’ll return a few hours before he does.”

“Which gives us a healthy window,” said Liam.

“It does, but still not an easy one. The manned patrol will be gone, but that doesn’t mean his primary residence will be unwatched or undefended.”

“But you’re confident you can still get us through to the terminal,” said Liam.

“Yes. It won’t be easy, but I’ve been working to crack my father’s

personal security for years. Killing him is impossible. If not, I'd have done it by now. Wherever he is, he has too many guards, and too much security. He ups it to stratospheric levels for my visits, including the automated variety, since he won't allow guards in his presence. Kind of insulting that he doesn't even trust his own daughter."

"Given you've been plotting to kill him for years," said Kim wryly, "you probably shouldn't be *too* offended."

"Good point," said Emma. "Fortunately, this plan doesn't require us to kill him. All we need to do is reach the master terminal. Which should be possible with the reduced security and the ways I've found to circumvent it."

"So what's the plan?" said Liam. "Specifically?"

"It's pretty simple, really. I drive you and Brianna in the back of a closed delivery van to my father's primary residence. Then, with you in tow, I use the powder I've been keeping dry to bypass automated security. I'm confident my methods will do the trick, although I can't be *absolutely* certain. What I am certain of is that they won't work a second time. So this is our one shot."

"When do we get started?" asked Liam.

"We'll wait another hour to be sure the guards have left and then we're off. Once we exit the van, you and Brianna will be in charge of watching our backs and following my lead while I get us the rest of the way. If we run into any unexpected trouble, I'll be counting on you to take care of it. I've always been a potential target due to my father's wealth, so I've had extensive training in self-defense, and with guns. I'm nothing compared to you and Brianna, but I'm not entirely helpless."

"Understood," said Liam.

"What's in the duffel bags?" asked Emma.

"We'll walk you through what we've brought," said Brianna. She raised

her eyebrows. “Which includes a little gift for you.”

“Intriguing,” said Emma Scott, raising her eyebrows. “What could you possibly get the girl who has everything?”

“Some undergarments we’d like you to wear.”

“Really?” said Emma with a twinkle in her eye. “Why do I get the feeling these aren’t the *frilly* variety.”

Brianna laughed. “Yeah, I wouldn’t suggest wearing them on a date,” she said. “Actually, they serve as lightweight but *extremely* effective body armor. Fairly comfortable, especially given the protection they afford.”

“Thanks,” said Emma. “Thoughtful of you, but unnecessary.”

“Hopefully so,” said Liam. “But you know what they say. It’s better to have body armor and not need it, than to *need* body armor and not have it.”

“Brilliant,” she said. “You’re absolutely right. If I’ve heard that old saying once, I’ve heard it a thousand times.” She broke into a broad grin. “Besides, who doesn’t dream of wearing bulletproof knickers?”

Emma Scott lifted a stuffed backpack and escorted her guests and their colorful duffels into the cargo compartment of the windowless blue Ostech *D80 Deluxe*, the company's top-end delivery minivan, and closed the door behind them. The D80 was one of an extensive fleet of vehicles now offered by Ostech, which had come to dominate the auto industry as quickly as it had come to dominate most others.

The mogul's daughter took the driver's seat and set her bulging backpack beside her. She could have had the van drive itself but wanted personal control for a mission this important, for reasons more psychological than actual.

Despite the lack of windows in the cargo compartment, four monitors on the walls inside displayed a panoramic view of their surroundings. Emma had seen to it that several small holes had been drilled in the partition between front and back, so they could communicate.

Liam put his arms around Brianna as the van began to move and drew her close. He pressed his lips against her ear. "What do you think of Emma?" he whispered, preferring to hold her close rather than use comms.

"What's not to like?" she whispered back. "Bright, down-to-earth, sharp sense of humor. Our kind of people."

"Yeah. I just hope she knows what she's doing."

They parted and Liam stared at her with a depth of emotion she had rarely seen. "I love you, Brianna Cutter," he mouthed, and the intensity of his expression was absolute. "Whatever happens," he whispered, "I need you to know that. I was in love before, but I never dreamed I could love anyone the

way I love you.”

A tear came to Brianna’s left eye. She had never seen him this lovesick—or this rattled. He was normally brave to the point of cockiness, but now he was shaken. For good reason. This op seemed like a walk in the park, but it could also end their lives in an instant. What made it so scary was that there was no way to even hazard a guess as to which way it might go.

Liam was the most gifted of all EHO operatives, physically and mentally, and the best under pressure. But he was also the best prepared. His ops appeared effortless because he did his homework. He contingency planned his contingency plans, and his thoroughness was legendary.

But this op was out of his hands. It was an equation with too many variables to solve. They were walking blindly into the unknown, relying on Emma’s expertise, with no idea what surprise tech Oliver Scott could bring to bear if things went sideways.

They had operated behind enemy lines before, but never like this. One and Jess were powerless to help them. No backup was coming, because none could make it through the island’s shield. And Oliver Scott wasn’t known for being the merciful sort.

“I love you too, Liam,” she whispered back. “We *will* get through this. I know it. When we’re together, we’re unbeatable.”

She leaned forward and kissed him gently on the lips. “And we’re going to have a long and happy life together.”

They held each other for several long seconds and then parted, both aware they needed to get their game faces on. Liam rechecked the duffels while Brianna watched the outside monitors.

The road cut a narrow path through dense, luxurious rainforest on either side, which covered most of the island. But it was a rainforest that didn’t require *rain*. Lumos sported a comprehensive array of pipes and pumping

stations that made use of the Arcadia-invented desalination technique to purify billions of gallons of seawater. Enough to quench the thirst of an entire island thick with tropical trees and vegetation.

Emma soon left the main road and branched onto one that led, inexorably, to their destination—and nowhere else. From out of nowhere a song from *The Wizard of Oz* began to play in Brianna’s head. *Follow, follow, follow, follow—follow the yellow brick road. Follow the yellow brick, follow the yellow brick, follow the yellow brick road.*

Not a bad choice for her unconscious mind to conjure up, she realized. They *were* following a singular road to get to the residence of the great and powerful Oz. Ironically, this had long been one of Scott’s nicknames, since Ostech sounded so much like Oz-tech, and if anyone had ever been a wizard, it was Oliver Scott.

The difference was that the fictional Oz was a fraud. The non-fictional one was anything but, likely even *more* powerful than advertised.

“We’re about a mile out now,” said Emma from the front, and her disembodied words were easy to make out.

“Roger that,” said Liam.

“This is the easy part, though,” said Emma. “The hard part will be deactivating the safeguards inside the house. You’ve seen those heist movies with the crisscrossing lasers. And the pressure and motion sensors. Well, add in an exceedingly advanced security AI, automated guns in every wall, and doors that immediately seal you in and release knockout gas. Then multiply that by five, and you’re getting close.”

“Thanks,” said Liam. “That’s super comforting.”

“Don’t worry,” replied their host cheerfully. “I’ve got this. I just want you to be properly impressed when I get you and Kim in front of the master terminal.”

“The most troubling part is that even if we accomplish the mission,” said Brianna, “it’s only the beginning. ARM still needs to find a way to help us. And even then, we’re looking at a protracted battle.”

Emma seemed more determined than ever. “That’s true,” she said, “but it’s a battle we’re going to win. We don’t have another choice. My father will be dead. Ostech will have lost trillions of dollars of value. And I’ll be ecstatic.”

“It doesn’t bother you that you’ll inherit a company a fraction of its current worth?” said Liam.

“I don’t want it,” said Emma. “Besides,” she added with a wry smile, “I have managed to squirrel away a few hundred million dollars for a rainy day. So I should be able to get by. You know, just *barely*.”

Brianna laughed.

As they came to within half a mile of the residence, the clearance between the road and the rainforest increased significantly. Now, instead of the jungle nearly encroaching on the road, the tree line didn’t begin for about fifty feet on either side of it.

At a quarter mile from their destination, a roadblock suddenly appeared around a turn, along with six heavily armed mercenaries, all wearing combat vests. Emma’s eyes widened and she skidded to an abrupt halt.

“What the hell is this?” demanded Liam. “You said we’d have clear sailing!”

“I know what I said!” snapped Emma. “Don’t worry, I’ll handle this.”

As she spoke, eighteen additional mercs left posts just inside the tree line on either side of the road and swarmed toward the vehicle, surrounding the back and sides of the van about ten feet distant, machine guns at the ready.

One of the mercs slowly approached Emma from the roadblock and motioned for her to lower the window, which she did.

“What is this about?” she demanded.

“My name is Captain DeShawn Jackson,” he said. “I command the security forces here. I’m very sorry, Miss Scott, but I can’t let you proceed any further.”

“So you know who I am—and you still have the nerve to *threaten me*? Bloody hell! Are you out of your *fricking mind*?”

“Sorry, ma’am. And no threat intended.”

“No threat intended?” she said in disbelief. “Are you an idiot! Or am I hallucinating scores of armed soldiers surrounding me?”

“Sorry about that,” said Jackson calmly, ignoring her insults. “And sorry I have to turn you back. But my hands are tied.”

“You know who I am. So you must know I’m allowed access to this residence, right? The *only* person who is—including you or your men.”

“Yes. But only when your father puts you on the schedule. And he didn’t this time. He’s in meetings all day at the west residence and has asked not to be disturbed under any circumstances. Normally, we’d disband until he was scheduled to return.”

“So what’s different now?”

“Just before Mr. Scott left, Lusec reported having some . . . I don’t know, call it indigestion. It runs a self-diagnostic every five minutes and detected a few things that were off. The AI still can’t pinpoint what, exactly, but call it the AI equivalent of an uneasy feeling. It’s quite minor, actually, but Lusec thought it wise to alert your father and trigger emergency protocols.”

“And what *are* these emergency protocols?” demanded Emma.

“Just precautionary. Instead of disbanding as planned, we put up a roadblock here. And we can’t let anyone through. And one other thing. It isn’t part of the protocol, but your father also issued additional orders before he left for the day. His response to Lusec’s uneasy feeling.”

Brianna and Liam watched the men surrounding the van on the monitors and braced for battle. They looked on with bated breath as the captain removed a printed color photo from his combat vest and handed it to Emma.

“Mr. Scott wanted us to especially be on the lookout for this man. Someone named Liam Dunne. You may have seen the viral news about a worldwide manhunt for him and several others. In any case, I have no idea why a tiny glitch in Lusec might indicate he’s here, since the island is impregnable. Still, I’ve learned to follow Mr. Scott’s instructions to the letter—without asking questions. Any chance you’ve seen him?”

“None,” said Emma. “Now let me pass.”

He shook his head. “Again, I can’t do that.”

“Your emergency rules and protocols don’t apply to me, Captain,” said Emma with a haughty air of command. “If you continue your harassment, I promise you’ll suffer consequences you can’t begin to imagine. Neither I nor my father will stand for what you’re doing! I’m thoroughly exempt from this nonsense.”

“I’m sorry, Miss Scott. I didn’t want to bring this up, but you *aren’t*. Mr. Scott made that clear. Not even you are allowed to pass.”

“That’s preposterous!” said Emma. “So if I go forward, what will you do? Will you *shoot* me?”

“No, of course not. My actions are dictated by your father’s orders, and he was quite clear you aren’t to be harmed under any circumstances. He said the same thing if we were to encounter Liam Dunne. So if you refuse to turn back, we’ll just disable your vehicle and take you into custody as gently as we can.”

“Anything about my father’s orders you’ve left out?”

“Yes. He said if anyone attempted to travel to the primary residence, other than you, we should capture them. If they didn’t surrender meekly, they

were to be killed immediately. Again, the only exceptions being you and this Liam Dunne character. And when it comes to Liam Dunne, Mr. Scott could not have been more adamant that he be taken alive.”

Emma sighed so heavily her passengers could hear the exhalation in the back of the van. “In that case, Captain,” she said, “while I *will* have your head for this, I have no other choice but to take my leave. But this is absolute rubbish, and it won’t be forgotten.”

The captain winced. “Sorry, ma’am. But there is one last thing. Before you leave, I’m afraid I’ll need to search the back of the van. Again, I really don’t have a choice in the matter.”

Brianna Cutter maintained a tense state of readiness, fuming at how quickly this walk in the park had turned on them. But she admired how well Emma Scott was handling herself. The woman was too smart not to quickly realize she wasn't getting anywhere with the captain, but she was doing her damndest to stall, giving her passengers time to prepare themselves and come up with a viable plan.

Which they had done.

Not that it had been difficult. They only had a single plan, really, if they ran into trouble, which they could twist to meet the circumstances. They had packed an entire duffel bag full of smart holographic projectors for a reason, after all, each a silver sphere the size of a golf ball, which would extend six tiny cameras and activate upon a command they could send through their comms.

They checked their guns, knives, and other assorted weaponry, while hastily filling pockets with almost a hundred holographic projectors between them. Their clothing bulged like chipmunk cheeks stuffed with nuts. When they couldn't load any more, they each cradled about a dozen of the silver balls in their hands.

"You know something, Captain Jackson," Emma Scott growled ominously in the front, "you're really starting to *piss me off!* You wanted me to leave, and I've agreed. And now you have the *audacity* to demand that my *privacy* be violated."

She shook her head. "A search of my vehicle is out of the question."

She reached into the outer pocket of her backpack beside her, removed a black electronic device about the size of a deck of cards, and pushed a button

in its center, boldly ignoring the captain and his twenty-three comrades who continued to surround the van at full attention.

“There!” she said triumphantly. “Do you know what I just did? I just shorted your comms. All of them. I know what comm channels and equipment you use, and this device is capable of shorting them remotely. So now you can’t communicate with each other, or anyone else, until you get them fixed.”

“Why would you do that?” said Jackson in disbelief.

“*Wow, she’s a wonder,*” Brianna relayed to her partner through Jess and their comms.

And she *was*. Not only was Emma more prepared than they had known, she had made sure to vocalize what she had done for their benefit. That didn’t get them out of their immediate mess, but it did let them know these soldiers couldn’t call for backup, nor bring the full might of Lusec down upon their heads.

“I did it because I *could,*” replied Emma from the front. “Just to muck with your lives the way you’re mucking with mine. Out of spite. Call it a tantrum, if you will.”

“Then I have no choice but to treat you like a child,” said Jackson, finally running out of patience. “And a hostile.” He ordered two of his men to train guns on her until further notice while he walked to the back of the van to spearhead the search.

The van’s back doors opened outward from the center. Liam stood near the back, off to one side so he wouldn’t be seen immediately as the doors opened. He motioned Brianna to get behind him, using himself as a human shield.

Both Americans readied the mass of smart holographic projectors they were holding. The duffel that had held the devices was nearly empty and

would be left behind, while Liam would carry the second bag, leaving Brianna's hands free.

They couldn't deploy Kim or Jess to create electronic mayhem on Lumos, since its systems were too advanced. Even so, *Kim* was extraordinarily formidable, even without the ability to control Scott's systems. She could help them make short work of the twenty-four non-enhanced soldiers.

Especially since the two agents had other significant advantages. They were invulnerable everywhere below the neck. And Scott's insistence that Liam be taken alive—so the tech mogul could get intel from Kim—would cripple the efforts of these men to corral them.

The fact Scott thought he could take Liam alive meant the great and powerful wizard was unaware that his target now wore a suicide collar around his neck.

"*Kim,*" thought Liam telepathically, "*please keep a running tally of the men we put down. Assume two will continue to babysit Emma, and don't include them in the count.*"

"*Will do,*" she replied.

Jackson ordered a dozen of his men to train their weapons on the back of the van, including four holding tranquilizer guns in case Liam Dunne was present inside. Then, without further delay, the captain flung open the doors and twisted out of the line of any possible fire.

The moment Liam saw daylight, he dropped the projectors he was cradling just beyond the door, and numerous silver balls hit the pavement nearby and rolled in various directions.

The fifteen soldiers facing them behind the vehicle instantly concluded the balls were explosive devices and sprinted onto the barren ground on either side of the road, running for an average of about twenty feet before

taking flying dives to the turf like wide receivers laying out for a pass. They threw their arms over their heads, bracing themselves for blasts of unknown ferocity.

“Stay here, Emma!” Liam shouted as Brianna flung her collection of silver balls into the midst of the fleeing hostiles. “We’ll be back.”

With that they leapt from the van and began to race for the tree line to the south and the safety of the forest. As they ran, Brianna gave the order for the projectors to extend their cameras and become active, and not a moment too soon.

A number of the soldiers realized the balls hadn’t detonated and jumped to their feet, ready to take down the fleeing agents. But just before they could get off any shots, tranquilizer or otherwise, numerous Navy SEALs appeared out of thin air, firing machine guns in their direction with a deafening staccato thunder as heart-stopping as it was unmistakable.

The hostiles hit the ground again and returned fire as Liam and Brianna covered the fifty feet to the tree line and rushed into the dense rainforest. Hundreds of birds burst into the sky in a panic for miles around, and countless small rodents and lizards scurried off to safety.

Once within the protective confines of the forest, the Americans spun around toward the road and the mayhem occurring on both sides of it. Given their added cover, they’d be able to take out most of the hostiles fish-in-a-barrel style, while these soldiers were focused on fighting the imaginary holographic SEALs Kim was generating from the scattered projectors.

Liam dropped the duffel he had carried, and he and Brianna pointed compact submachine guns at the hostiles, preparing to fire.

Their targets began vanishing before their eyes! First a few, and within seconds, all of them. They disappeared like fireflies blinking out on a dark night. They *dematerialized* as suddenly as Kim’s holographic SEALs had

done the opposite.

“Invisibility?” asked Bri in alarm.

“Has to be,” said Liam, as both began spraying the areas they had last seen groupings of hostiles. Most would have repositioned immediately after going invisible, and they all had body armor of their own, but it was worth a try.

Sure enough, their efforts were able to reduce the number of hostiles by one. A geyser of bright-red blood erupted in midair, neck high, and then a pool began to accumulate on the ground below, indicating the invisible soldier they had hit had crashed to the ground and was continuing to bleed out. It was an incredible sight, as though the air and ground themselves were bleeding.

They quickly moved deeper into the forest, dropping the occasional holographic projector as they did so. The forest was so dense, just ten yards farther in they couldn't see the clearing at all. For all they could tell, they were in the center of the Amazon, with nothing but jungle for thousands of miles in each direction.

The enemy had realized the SEALs were holographic and had stopped firing, but remained invisible, aware they now had a war on their hands.

Bri cursed to herself. Their plan had been working precisely how they had mapped it out. But they hadn't counted on facing an invisible foe. So what had been shaping up to be a fish-in-a-barrel operation, a hunting expedition, had turned into something far more problematic.

Because the barrel was now the size of a rainforest.

And the fish were now piranha who couldn't be seen coming.

The forest was beautiful, even more spectacular in many ways than the one near their residence on Lanai, but there was no time to admire their surroundings.

“We need to split up,” insisted Brianna, shuttling her telepathic words through Jess and Kim and into Liam’s comm.

“Not a chance!” he responded. *“You need to stay with me. The closer you are the less danger. They can’t risk shooting live rounds and killing me accidentally. Scott will have their heads on a stick—literally.”*

“Come on, Liam. You know it’s better, tactically, if we separate. We don’t have time to argue.”

Liam closed his eyes and felt as if he’d been shot in the gut. *“Okay. You win. But no heroics. Remember to drop projectors every so often. And don’t you dare go out in a blaze of glory. Surrender meekly if you have to. If that happens, we’ll still figure out a way to turn the tables.”*

Liam reached into the duffel and pulled out a smaller nylon bag collapsed inside. He loaded half of their remaining ammunition into it and handed it to her.

“Liam Dunne and Brianna Cutter,” boomed the voice of DeShawn Jackson near the tree line. His shout reverberated throughout the forest. “You’re as good as advertised. But we have Emma Scott, who appears to be your ally. And you can’t run. Thirty yards into the forest you’ll hit a dense minefield. Smart mines. Can differentiate people from animals.”

The captain paused to catch his breath and rest vocal cords sore from shouting. “I don’t care how good you are,” he continued, “you can’t beat *mines*. The trees are marked with paint to indicate you’re entering the field.

Emma can confirm it.”

“It’s true, Liam,” rang out the voice of Emma Scott. “All possible stealth approaches to the residence are mined. So you’ll just have to stand your ground and *kill these bloody bastards!*”

There was a long pause, probably while Jackson made sure Emma couldn’t say anything else inflammatory.

“Don’t be stupid,” shouted the enemy captain. “Not even you can take down more than twenty trained soldiers you can’t see. So surrender now. If you do, we won’t hurt Brianna Cutter. I was told you’re in love with her, Liam. I’d hate to have to do it, but I have orders to kill her if you and she don’t cooperate.”

Liam ignored him, kissing Brianna on the lips and then motioning for her to park herself within a thick cluster of trees. He quickly began working his way eastward.

“I need to respond without giving away our position,” he told both women telepathically as he moved. *“Kim, choose one of the projectors we dropped in the forest—the one farthest away from where we are now—and use it to broadcast my words to the captain. Also, I want the feeds from the cameras on that projector relayed to our contact lenses.”*

“Will do.”

“Captain Jackson,” began Liam, “a question, if I may, while I consider your surrender demand. How is it that your blood is visible, but not your weapons?”

There was a pause as Jackson considered whether or not to answer. “Our clothing and weaponry are pre-coded to respond to the invisibility field,” he bellowed back finally. “Our blood is not.”

“Thank you,” replied Liam. “Very helpful. You seem quite reasonable. So while we won’t be surrendering, we are willing to spare your lives. And,

yes, they're very much ours for the taking. You may be invisible, but you have no idea what goodies I have in the duffel bag I'm carrying. Trust me, you'd run now if you did."

Brianna smiled from her hidden perch. Nothing in the bag would help much against invisible soldiers, but she admired Liam's bluff. The more nervous Liam could make them, the better.

"Then, too," he continued, "our hearing is ten times as acute as yours. We're enhanced, right? So while we can't see you coming, we *can* hear you. So don't even think about breathing hard. And even if you're invisible, can you approach us without advertising your presence? Without jostling a single leaf? Without moving the petal of a single flower? Or breaking a single twig on the ground?"

Liam paused. "Finally, you'll have to come root us out. We can stay put and plan ambushes, giving us a tactical advantage."

When Jackson didn't respond, Liam continued. "So I'll make a counteroffer, Captain. If you become visible, lay down your arms, and surrender, neither you nor your men will be harmed. You have my word."

Jackson still didn't reply, but the feed from the smart holographic projector transmitting Liam's words now showed the rustling of leaves and foliage all around it as any number of invisible soldiers closed in on Liam's voice.

That was answer enough.

"*Brianna,*" broadcast Liam, "*while they're chasing a decoy, let's disperse the rest of the projectors. Quickly!*"

"*Roger that,*" came the immediate telepathic reply.

Both Americans quietly rushed through the trees, keeping low to the ground and hidden behind palms and other vegetation as they did so. Periodically, they dropped smart projectors on the forest floor, keeping them

as well dispersed as they could to maximize coverage.

“When you’re nearly empty,” thought Liam as he continued laying down his own matrix of projectors, *“take up a well-fortified position, and drop the last five or six projectors fairly close by. They’ll be your last line of defense.”*

Within two minutes they had each finished dispersing almost fifty smart holographic projectors and had taken up entrenched positions. They hadn’t been fired upon by any of the twenty-one soldiers now fanning out through the forest, who had wasted critical time charging the projector that was broadcasting Liam’s voice, only to be sorely disappointed.

“Thank God we’re done with that!” broadcast Liam to his partner when she indicated she had completed the exercise. *“I can’t imagine we’ll be that vulnerable again. But stay frosty.”*

“Always,” came the reply.

“Kim, I need you to go to milli-time and monitor the views from all projectors. When you detect any rustling in the leaves or foliage, let us know.”

Given each projector had six cameras, the devices would be displaying almost six hundred different views of the forest.

“Milli-time is too fast,” replied Kim. *“I’d be worse at detecting subtle motion than you would, as everything would appear frozen to me. Jess is the better choice. She can watch the feeds all at once in real time.”*

She paused. *“The instant Jess detects movement, however, and especially if a soldier fires, I can help. I can enter the projector nearest to the movement and go into milli-time. I can calculate the likely location of the soldier’s head and have a bullseye float in front of your lenses to direct your shot.”*

“Why not take over my body again?”

“You couldn’t help but resist me. You can’t give up the reins without having time to meditate and relax first, like you did in China.”

“Understood. No matter. Our reflexes are still fast enough to prevail, as long as we have some means to target the invisibles. I say we should speed things along. Bring the prey to us.”

“What do you have in mind?” asked Brianna.

“Have Kim enter milli-time and choose projectors within sight of us. Then, materialize a hologram of each of us emerging from behind a tree.”

“Smart,” said Brianna’s voice in his ear. *“If any hostiles are near, they’ll shoot at the decoys, either live rounds or tranq darts, giving away their positions.”*

“Exactly.”

“Good plan,” acknowledged Brianna. *“I’m in.”*

“Roger that,” replied Liam. *“Jess,”* he added, changing gears, *“can I assume you can do the same as Kim, calculate the most likely position of hostiles—specifically their heads—from the trajectory and sound of their shots?”*

“Yes,” replied the AI. *“And I can flash a bullseye for Brianna to aim at as well. I can even make best-guess calculations as to where they might be a few seconds later. Although the accuracy will be suspect.”*

“We just have to get close,” thought Liam. *“We’ll be spraying the targets with submachine-gun fire. Ready, Bri?”*

She took a deep breath and steadied her firearm. *“Ready!”*

“Kim, now!” he thought at his ex-wife.

Liam held his breath and waited. He craned to see where the holographic version of himself might have popped up, but his view was blocked by the thick woods, and he couldn’t make it out.

Fortunately, three hostiles could, and they were much closer than he had

known. In fact, they'd been just seconds away from stumbling over the *real* Liam Dunne.

All three invisible soldiers turned away from their actual target, still hidden, and fired on his holographic doppelganger, or at least he surmised that's what happened, since he couldn't see them. At the same time three bullseyes popped into place, appearing to be floating twenty feet away, and he sprayed this general area with bullets, head height. Trees and leaves were shredded by the hellish barrage, and living shrapnel exploded through the air.

While he couldn't confirm the kills directly, three separate pools of blood began spreading out from three focal points on the forest floor. Little wonder, as his violent spray couldn't have helped but connect.

Liam's heart pounded like a jackhammer upon hearing submachine gun fire off in the distance. Bri was in a firefight of her own. Given how well Kim could use the various projectors to create decoys and distractions, Brianna was likely to prevail, but his breath stuck in his throat and his heart almost burst from his chest.

"Four down on my end," announced Bri calmly, allowing Liam to breathe again.

"Three on mine," he replied as he hastily reloaded.

Their strategy worked better than anticipated, as the sound of fire brought the rest of the hostiles racing toward each EHO operative. The enemy force moved so quickly they caused violent movement of leaves and undergrowth and advertised their positions like neon signs. At the same time, Kim flashed in and out of milli-time and created numerous holographic decoys and doppelgangers, which kept the hostiles off balance and ensured they fired at every version of Liam and Brianna except the real ones.

At times Kim would generate three versions of Liam in view of the same group of soldiers, making them guess which one was real, only to learn that

none of them were as the real Liam fired upon them from an entirely different direction.

Targets popped up in front of the agents' contact lenses on a nearly continuous basis. Given their superhuman reflexes and marksmanship, they made quick work of the invisible hostiles while Kim kept a tally.

It was possible some of the men were only wounded, the greatest danger of all, but Kim and Jess continued to monitor for any movement where blood had appeared on the forest floor. Given the Americans were spraying their targets at head height and below, most were likely dead or incapacitated.

Not that Liam and Brianna could have prevailed if not for their carbyne nanomesh protection. Both took incoming fire. But since they were better entrenched, better concealed, and the hostiles had to come to them, only a handful of tranquilizer darts and live fire hit them, and these were rendered harmless by their body armor. A bullet did graze Brianna's neck, leaving a bright red line of blood in its wake, but the wound was superficial only.

"Only seven left," broadcast Kim enthusiastically, as both Brianna and Liam moved from their positions and rushed to new ones, making sure the remaining enemy was kept guessing. Kim continued to track their movements and make sure decoys kept them out of trouble.

They had picked off three more of the hostiles when Jackson's voice once again bellowed throughout the rainforest.

"Liam Dunne, stand down!" he screamed. "We have Brianna. There are four of us, still invisible. Surrender or we'll kill her."

"Project me as close to Brianna's position as you can," he ordered Kim.

There was no answer, but a hologram of Liam materialized ten feet away from where Brianna was standing. He could see through its eyes and speak through its mouth.

Brianna's posture was unnatural, and it was clear an invisible arm was

around her neck, pulling her back, most likely holding a combat knife to her jugular. Liam had little doubt three other guns were trained on her head, held by men likely low to the ground and being sure not to move and give themselves away.

“Congratulations, Captain Jackson,” said the Liam hologram. “Apparently, you’re as hard to kill as a cockroach. But if you hurt her, you’ll never be dead enough. My offer still stands. You can still surrender.”

“So can you,” said Jackson. “And you *will*. And yes, I’m aware you can triangulate in on my voice, and if you’re within shooting distance, kill me. But if you do, Brianna dies also. My men have strict orders, so that is an absolute *promise*.”

Liam paused in thought. Even Kim and Jess were largely powerless to help him get out of this one.

“You have *one minute* to decide, Major. Not a second longer.”

“*Brianna, I’m going to surrender*,” he told her telepathically. “*We have no other choice*.”

“*You can’t. I won’t allow it. I’m expendable. Kill these guys and then free Emma. Get to the terminal. If we fail, humanity will be massacred. Do you think I want to live knowing you traded humanity’s only chance for my life?*”

“*I’m surrendering, but I’m not giving up. We will find a way. You said yourself we make an unbeatable team. I don’t care how badly the odds are stacked against us. This is not how this ends*.”

“*Liam, you can’t*.”

“*Nothing you say will change my mind. So focus on readying yourself if we get an opening. Probe for weakness. Be prepared for anything*.”

“Your minute is almost up!” shouted Jackson. “What’s it going to be? In five seconds, she loses an ear.”

“*Okay!*” barked Liam through the hologram. “You win. I’ll come to you with my hands up. But if you don’t keep your word, I will escape. And I’ll destroy anyone you’ve ever cared about before killing you. Are we clear?”

“Crystal,” replied Jackson.

Liam made his way to Brianna’s location as he continued watching her through the eyes of his holographic representative. She still stood in an unnatural posture, tension written all over her face, not moving a millimeter. It was surreal to know she had a knife at her throat, and guns at her head, when all he could see was her motionless body.

He broke through a dense outcropping of banana leaves and found himself only eight feet from his hologram, which abruptly vanished. He lowered the duffel bag to the ground and raised his hands, surrendering to no one he could see.

“Still doing okay, Brianna?” he asked out loud.

“Not as well as I’d like, to be honest,” she said, barely moving her lips so the knife at her throat wouldn’t dig in.

Liam braced himself for an expected dart to the neck when four shots rang out from behind Brianna in quick succession. He screamed, thinking Jackson had broken his word and ordered his partner shot, but realized she was still standing. Not only standing, but suddenly regaining her usual posture as four pools of blood began forming on the forest floor around her.

Before Liam could even process what had happened, Emma Scott emerged from behind a tree with a smoking gun in her hand and goggles over her eyes. She looked white as a ghost, horrified.

Liam rushed over to Brianna, tripping on an invisible body on the way, but he righted himself and completed the journey without an embarrassing face-plant. They held each other and closed their eyes in relief, but quickly parted. They weren’t out of danger yet.

Liam stared intently at Emma, who had waited for them to complete their embrace. “You shot them?” he said in disbelief.

“I did,” she mumbled, still looking ill.

“How?” said Brianna.

“I told you, I’ve had training. You created so many distractions, I was able to get the jump on the men guarding me. Pretty easy, actually, since they hadn’t been briefed on my training and considered me harmless. And then I put on a pair of goggles I found in their combat vests.”

“Goggles?” repeated Brianna.

“Yes. I had no idea my dad had developed personal invisibility devices for his security forces. If so, I would have warned you. Seems he’s keeping as much from me as I’m keeping from him, especially after Kim escaped. He’s become more paranoid than ever.”

She paused. “But he did discuss this possibility with Jeff and me a few years ago. We told him the system he was envisioning wouldn’t work. The invisibility field would need to encompass weaponry as well as people. An invisible soldier holding a visible machine gun floating at chest height wouldn’t be effective.

“Second, the troops would have to be able see *each other*. Can’t have your own forces unable to coordinate, and risk running into one another.”

Liam nodded appreciatively. “So you guessed he had taken your criticisms to heart and developed goggles so they could see each other.”

“Exactly,” said Emma. She removed her goggles and handed them to Liam. “Give them a try.”

Liam put them on. Instantly, bodies appeared, strewn about in awkward, unnatural positions, coming in with perfect clarity. And not just the four Emma had killed but three others whom Bri had put down before she was captured.

It was a bloodbath. A charnel house.

Liam's eyes moistened, and he gave Emma a quick hug, which surprised him as much as it did her. "*Thank you,*" he said, his voice thick with emotion. "I'm sure your father would have had Bri killed, even if the captain intended to keep his promise. I'll never be able to repay you."

"No need," said Emma simply. "We're a team. You and Bri have already done more than your share. If you want to repay me, just make sure we stop my father. Before it's too late."

Liam approached two of the still-warm corpses and rooted through their combat vests, removing two more pairs of goggles, handing one to Emma and another to Brianna.

“We should keep these on,” he said. “Just in case.”

“Agreed,” said Brianna. “Emma, where do they keep the devices that confer invisibility? We should use them ourselves.”

“Won’t work,” said Emma. “I already tried. Another thing we discussed with my father that he adopted. Each invisibility device is keyed to the user’s DNA. To prevent the tech from falling into the wrong hands. With the wrong hands being defined as anyone my father can’t control.”

“That’s too bad,” said Liam. “But we need to get a move on. We’re behind schedule, and we don’t want to attract more attention.”

The trio made their way back to the van, picking up several holographic projectors along the way and pocketing them for future use. The van had two of its tires shot out. Liam shot out the other two, and they were able to drive on the rims the short distance to where the formal mansion grounds began.

They exited the van, leaving it concealed on the road behind them. Liam carried his duffel while Emma brought her backpack.

They viewed the grounds for almost a minute, making sure the coast was clear and there was nothing they had missed.

The residence was like something out of a medieval fantasy novel, with arches and spires and sculpted doors. The mammoth structure was ringed by towering date palms, soaring eighty feet into the sky. Just beyond the palms a perfect circular lawn began, with lush grass and tropical flowers extending thirty yards in all directions.

Artificial ponds and water features, many with elaborate Greek statues embedded, were spread symmetrically about the lawn, but one item was notably absent. A road leading from their position to the entrance. Apparently, Scott only moved about using self-driving vehicles in his underground maze.

“The grounds are mined,” whispered Emma, keeping her voice low, even though her father’s enforced reclusiveness made the presence of anyone here almost impossibly unlikely. “Smart mines again. These won’t react to animals, or to my father.”

“How does *that* work?” said Brianna. “How does a mine know who stepped on it?”

“There are cameras in the ring of palms that coordinate with the mines. But I deactivated these mines when you landed, in such a way that Lusec still registers them as active.”

She shook her head in disgust. “But apparently my manipulations did cause the bastard indigestion. Didn’t predict that, and don’t even quite know what it means. But to continue, your faces are in the system, but in such a way as to make them inert. Lusec won’t react to you in any way, good or bad. And I’m immune from these mines, as well. So getting across the grounds and to the door is the easy part. Once inside, I’ll need time to circumvent a myriad of other hindrances.”

She reached behind her and tapped her backpack. “But I have the skills and specialized equipment to do the trick.”

Brianna and Liam nodded their understanding.

“Follow me,” said Emma.

With that she walked calmly onto the immaculate carpet of grass and began striding purposefully toward the main residence. Flashes of brilliant red light appeared out of nowhere, and Liam and Brianna both issued

bloodcurdling screams, throwing themselves back beyond the periphery of the grounds as two additional beams of light streamed out, missing them by inches.

Emma rushed to their side as they flipped onto their backs and writhed on the ground. “What happened?” she whispered in horror.

“Lasers,” gasped Liam. “From the palms. Hit us both in the left upper thigh. Didn’t pierce the nanomesh, but burned the hell out of us. Fourth degree. Couldn’t be worse if we had caught on fire.”

Brianna’s agony was written all over her face. She barely held onto consciousness as the pain threatened to overwhelm her system, even given her enhanced ability to withstand it. While third- and fourth-degree burns destroyed nerve endings, limiting pain, peripheral areas where the nerves had survived were making their presence felt with a vengeance.

“In the duffel,” gasped Liam weakly. “Large med-kit. Find syringes marked morphine-X and epinephrine and inject them into our necks.”

Morphine-X was an improved version of the classic drug that would kill pain without dulling the mind or causing a false tranquility.

Emma rooted frantically through the bag and found the required syringes, injecting both of her wounded allies as quickly as she could.

“*How bad is it?*” asked Kim while Emma carried out the injections, her telepathic voice almost panicked.

“*Bad. Blisters. Seeping blood and fluids. Muscle damage. Incomprehensible pain from lesser burns on the edges.*”

“*That’s awful, Liam. But I’ll figure something out. Hang in there.*”

“I’m so sorry,” said Emma as she waited helplessly for the morphine to take effect. “I had no idea these lasers were here. None! There’s no need,” she complained to the fates. “He already has mines. He never even *discussed* putting smart lasers in the palms.”

Liam's face was contorted in agony. "Can you beat them?" he managed to get out.

Emma lowered her eyes. "I can't," she whispered. "It took years to figure out how to beat the mines. I wouldn't know where to start. Even if I could, there's no way you could make it there without passing out. I can't even imagine the pain you must be feeling."

"Morphine's starting to work," said Liam. "Still, if you can't disable the lasers, we'd be boiled alive before we took ten steps."

"*But Emma can still make it to the terminal,*" noted Kim, although only Liam and Brianna could hear her.

Liam pulled a smart projector out of his pocket and rolled it a few feet away, giving the order for it to activate. Like a spider whose legs were tucked against its torso, thin metal arms extended and pointed tiny cameras in six different directions, and Kim materialized in front of them.

The holographic Kim immediately turned to face Emma Scott. "But *you* can still make it to the terminal, right?" she said. "You were in the target zone and the lasers ignored you."

Emma swallowed hard. "Seems that way. But I thought you—through Liam—needed to be at the terminal. Jeff only risked sending a one-paragraph encrypted message to me, mostly about the time and manner of your arrival. But he did make it clear you needed to insert the drive yourself. And that you weren't willing to trust anyone."

Kim winced. "That might have been an overstatement. We can make this work. You've fought shoulder to shoulder with us. You saved Bri's life, and you've gotten us this far. Besides, we're out of options. So you need to be my hands.

"Liam can give you the flash drive. Get to the master terminal and insert it. It should be able to copy the Arcadia operating system in six to eight

minutes. Then bring it back. I'll use this information to program a blank flash drive to accelerate my friends. You'll have to make a second trip, though, to insert the second flash drive."

She paused in thought. "When you disable the security measures, will they *stay* disabled for the second trip?"

"Yes. Until my sabotage is discovered."

"Great. Then take the first flash drive and go!"

Liam instructed her to remove the clamshell case that protected their laptop supercomputer from the large duffel. When she opened it, he found the flash drive and handed it to her. She took it reluctantly.

"I'm so sorry," she said a second time. "And I can't just leave you here."

"We'll be fine," said Liam. "The morphine has kicked in, so just focus on getting this done."

"Hurry!" said Kim. "You have to make this happen as quickly as possible, before another shoe falls."

"Go!" said Brianna. "We'll be right here when you return."

The two EHO operatives remained on their backs, trying not to think about the permanent damage and disfigurement the lasers had caused, while tropical birds chirped happily in the distance. Each had been hit in the center of their left thigh, and almost the entire region was now burned, with the center absent multiple layers of skin and seeping fluids, and the periphery blistered and scarred. They needed to remove their clothing, but there was no cutting away carbyne nanomesh, further complicating matters.

The morphine-X was masking the pain, but they would need real medical attention soon.

Emma returned only twenty-six minutes later, although no wait had ever seemed so long. Her triumphant look said it all. Part one of her mission had been a success.

At Kim's direction, she inserted the flash drive and downloaded its contents into the already unpacked supercomputer, which Kim could access wirelessly.

The Kim hologram disappeared, only to reappear in the blink of an eye. "Done," she said with a smile.

"Done?" said Emma in disbelief.

"It was an easier nut to crack than I thought. It only took me ten days in light-time. Just under a second for you."

"Well, it's about time, then," said Bri wryly, somehow mustering up the hint of a smile.

Kim laughed. She instructed Emma to insert a blank flash drive into the computer, and moments later the program she had written had been transferred over to it, while she carefully obliterated the original from the

hard drive.

“Take this flash drive back and put it in the master terminal,” said Kim. “It has the names of all four hundred and fifty-seven members of ARM. But they’re encrypted. If you’re captured, we can’t risk these names getting into your father’s hands.”

“So how do I decrypt them?”

“*You* don’t. The program will know when it’s been inserted into the master terminal, and *only* the master terminal. Once it is, the program will begin paving the way for the new acceleration protocols to kick in. Unfortunately, this will take an ungodly amount of time—almost forty minutes. I’ve condensed an enormous amount of information onto a single drive, and Arcadia’s operating system is exceedingly complex, so it can’t be helped.”

She paused. “The names will decrypt themselves automatically at the end of this process. When they do, the screen will ask you for the duration of acceleration into light-time. Only accelerate them for as long as they need to learn how to impact our world and join the battle against your father. I’d start with seven minutes. Then, if they don’t contact you, I’d add more time in increments of two minutes until they can. It’s as simple as that.”

“Got it,” said Emma. “I won’t let you down.”

“I know you won’t,” said Kim.

Emma turned to her two flesh-and-blood allies. “How are you feeling?” she asked.

“The morphine is still masking the pain,” said Liam. “But there’s a further complication. We still have to escape the scene of the crime when you’re done. Our injuries have complicated matters. We’ve been keeping busy trying to work that out. Kim’s been helping.”

“I’ll be back as soon as I can,” said Emma.

She seemed ready to rush off again but stopped herself. “Sorry, almost forgot,” she added. She quickly produced four bottles of spring water from her backpack, unscrewed them, and handed one each to Liam and Brianna. “You two need to stay hydrated. I’ll bring more when I get back.”

With that Emma darted off to carry out her final task.

Liam began downing the bottle of water while Brianna took a grateful sip. She was ecstatic and heartbroken both. Ecstatic because they were about to complete this all-important op. Heartbroken because their injuries made it more and more unlikely they’d leave the island alive.

They had known this could become a suicide mission, and it looked like that’s how it would end. At least it would be a *successful* suicide mission, which was a great comfort. But it was heartbreaking to realize she’d miss out on the many decades she was planning to spend with a man she had come to love beyond all else.

She turned to Liam to get back to planning an escape, but his eyes were closed, and his breathing was shallow. As she moved her hand toward him to take a pulse, the world began to blur and spin around her. Her eyelids became as heavy as lead, and the open bottle of water fell from her fingers.

She struggled mightily to stay awake, but consciousness was already slipping away.

She had one final, cogent realization, which sent a chill down her spine. The water had been poisoned!

In her last instant of consciousness, she realized that Emma had betrayed them, for reasons she couldn’t begin to fathom, and that Oliver Scott had won, after all.

Brianna awakened inside a large room to find her ankles and wrists zip-tied to one of several steel chairs bolted to the floor. Each entire wall of the spacious room was a touchscreen monitor, and a large area had been carved out in the center of the room, clearly reserved for 3D computer displays if a user chose to render data or images in this way.

Emma Scott sat in an expensive mesh office chair, facing her. “Welcome to the master terminal,” she said with a self-satisfied smirk.

“What have you done?” whispered Brianna weakly, trying to shake off the fog of unconsciousness.

“What do you think?”

“You drugged us.”

“For starters, yes,” said Emma. “I just injected you with the reversal agent. I’ll have Liam brought here and revived when I’m done. I’ve also inserted Kim’s flash drive into the master terminal,” she continued, gesturing behind her.

The master terminal was a nondescript black box, about the size of a laser printer, which sat on a steel desk. A red holographic keyboard appeared in front of it, and a small touchscreen extended from its upper surface. Heavy, steel-sheathed cables ran below it and through the floor to forge a physical connection to the brain of the optical computer array below, since Arcadia was blocked from the web and EM signals of all kinds.

“We have about twenty-five minutes to go before the names of the ARM members are decrypted,” continued Emma. “Exciting stuff, isn’t it?”

“How did you bring me here?”

“How? A powerful, automated lift. I have my own soldiers, of course, but I don’t let any of them inside this residence. There are four of them guarding your sleeping beauty boyfriend, and making sure all signals are suppressed around him, grounding Kim. She’s trapped inside a sleeping body with no eyes or ears or senses. Sucks for her, but its only for a few hours, so she’ll get over it.”

“What do you mean by your own soldiers? As opposed to your dad’s?”

Emma issued a cruel, venomous laugh and stared at her prisoner in contempt. “You don’t catch on too fast, do you? They’re *all* my soldiers. Some of them just don’t know it yet.”

“I don’t understand.”

“Why am I not surprised?” said Emma. “I have to say, I don’t know what Liam sees in you. Let me paint you a picture that even *you* can comprehend.”

She paused for effect. “Oliver Scott is *dead*,” she continued emphatically. “Long live Emma Scott. I killed my father more than four years ago. Daddy was deadly dull, and much too virtuous. Not to mention sanctimonious.”

Brianna gasped and felt the room spinning around her. No Oliver Scott? They had spent every waking moment obsessed with finding a way to kill the man, and he had been dead the whole time?

It was incredible. Almost inconceivable.

Emma laughed again. “You should see yourself. If you were clever, you’d have seen this coming after I drugged you. But, apparently, I need to spell everything out. That’s okay, we still have time to kill.”

“But why?” said Brianna. “You’re his daughter. You were as rich and powerful as anyone on Earth already, except for him.”

“You really don’t get me, do you? First, I’m brilliant and destined for greatness, so why not grab it with both hands? But more to the point, I’m a

proud psychopath. It's in the wiring, although I kept it from daddy dearest. I killed Mum a decade ago, and the sharpest man to ever live never even suspected.

"I get a kick out of what you call cruelty, in all its myriad forms. An adrenaline rush. Life is deadly dull, so it's the only pick-me-up I can get. Outwitting, manipulating, torturing, and causing suffering, in general, really gets the old juices flowing. It's the only way I feel truly alive.

"Which is one reason I'm so looking forward to culling humanity. I'm taking a page from God's playbook, after all, who's always loved a good culling. But I won't be doing it in one fell swoop as you might imagine. It will be slow. Deliberate. A few million at a time. In many different ways. I'll be able to savor it. I'll first isolate the groups and keep the world out so no one will guess what's really happening. Not that it will matter if they do."

An arrogant gleam came to her eyes. "Like God," she finished, "it pays to be unstoppable."

"You are one sick puppy," said Briana in disgust. "The word *deranged* doesn't even come close."

"I think the word you're looking for is *superior*. The ultimate predator in a world full of prey. Psychopaths are as sane as can be. We're just missing what you might call a conscience. Ironic, isn't it? My dad went to heroic lengths to give Arcadians a soul, never realizing his own daughter didn't have one."

She paused, clearly liking the sound of her own voice. "But understandable, really. My acting skills *are* extraordinary. Admit it, you were coming to think of me as a sister. Heroic, good-hearted, sensitive, caring, and down-to-earth, right? Impressive that I can shed tears on command, isn't it? Trained myself to do that in my spare time. Comes in handy."

"So you're a despicable parasite who can impersonate a human. You

should be proud.”

Emma laughed. “Oh, I am. And I used my skills to good effect. I needed the three of you to trust me. I analyzed your personalities. Knew exactly how to come across, what buttons to push. But don’t feel special. I fooled my own mum and dad, and a savvy soldier named Jeff Littlefield, who was convinced we were working together.

“Anyway, back to dear old Dad,” she continued. “He had built this amazing tool, Arcadia, but only enrolled volunteers. It was so clear how much more productive his golden think tank would be if he’d add once-in-a-generation scientists like Kim Reynolds, not waiting for their permission. But he wouldn’t even consider it.”

She shook her head. “He really was more of a New Testament god. Turn the other cheek, try to help the poor, lift humanity up. Pathetic, right? I’m more a fire and brimstone and flood kind of god.”

“So you killed him and took over. All this time. When your cruelties began, everyone thought he had gone mad, chalking it up to a growing narcissism and megalomania.”

“Right you are. Keeping him alive and reclusive after I killed him was a masterstroke. No one suspects you of committing a murder when they don’t know the victim is dead. And it’s a convenient fiction that keeps me out of the limelight—and the line of fire. Better, it gives me the chance to play the poor, heartbroken hero to Daddy’s villain. When I apologized for his evils when you landed, when I blamed myself, and vowed to set things right, that was a nice touch, right?”

“You’re awfully needy,” said Bri with a sneer. “Why do you require affirmation from others? Just be content with being a soulless, horrid monster. Cut these restraints and I promise to pin a psychopath-of-the-century medal on your lapel.”

She shot her captor an icy smile. “Don’t worry, I’ll be gentle.”

Emma laughed. “I was hoping you’d be entertaining, and you are. No groveling or begging for your life, just insults and clever quips. I may keep you around for a while just to amuse me.”

“As long as you find death at my hands amusing, I’m happy to oblige.”

“That’s the whole bloody point, isn’t it? Because I’ll soon be unkillable. Immortal. I’ve never really fancied the idea of death. But more about that later. Any questions about what I’ve told you so far?”

“Why did you risk having your Oliver Scott hologram join the meeting between the US and China?”

“I couldn’t resist. I’ve had more fun in the past week than in all the years before. I make a better Oliver Scott than he ever did. Okay, he was smarter than me. He was smarter than *everyone*. But what I lack in genius, I make up for with an ability to read people. With cunning, imagination, ruthlessness, and so on.”

“Why pretend to team up with Jeff Littlefield?”

“Jeff was a disappointment. He was unwilling to take the journey with me. Well, with the hologram of my father I whipped up and controlled like a puppet. Perfect deep fakes and all that. Jeff tried to revolt but I—Oliver Scott—wouldn’t let him. I decided it would be more fun to force him into it. More fun to pretend to work with him to stop my father. To be just as horrified by what my father had become as he was.”

She paused. “That way, I could keep an eye on him and root out others plotting against me. Jeff was a magnet for them. That’s why known terrorists are sometimes left alone—so they can be followed around to uncover the entire nest. I kept Jeff spinning his wheels. He never did realize why our plots always failed, and why many of our co-conspirators were rounded up. People with souls are so easy to fool. Including you and your friends.”

Brianna scowled. She was *right*. How could they have let themselves be taken in so easily? And now the world would pay the price for their mistakes.

“Fooling Jeff for so long was also a bit of a challenge, which I enjoy,” continued Emma. “And kept my acting skills sharp. We often had three-way conference calls where I played the role of both Oliver and Emma Scott. I even pre-rigged my holographic deep fake puppet on occasion to talk over me in case Jeff noticed we rarely spoke at the same time. It was really rather amusing.”

“But not as amusing as wiping out everyone he loved,” said Brianna in disgust. “Was that just for the fun of it? Or to get him properly motivated and in pain when he came to us?”

“Why can’t it be both? Being able to wield him as a tool for this final coup was an unexpected benefit of our fake partnership, but I’m nothing if not opportunistic. I did try to kill Liam before Kim could be set free, but I failed. It was the first time I hadn’t achieved a desired outcome in years. But, ironically, it turned out to be lucky for me that I *didn’t* succeed.

“I had a sixth sense that something within Arcadia was brewing, which is why I instituted the Deep Freeze. Really bollixed my plans.”

She grinned. “But then Kim comes along to educate me about ARM, a well-organized resistance movement within Arcadia, sophisticated enough to hide both themselves and key breakthroughs. Like any good god, I’m eager to smite those with the gall to attempt defiance.”

“So this was all about getting to the knowledge in Kim’s head?”

“What else? She’s my chance to end ARM. When that became clear, I realized I was perfectly positioned to fool her like I’ve fooled everyone else. Jeff Littlefield would sing my praises, insist that I’m as pure as the driven snow, and fly through any lie detection process.

“I hoped she would trust me to insert her programming into the master

terminal without further fuss, so I could get the names of every member of ARM, but I'm glad she didn't. Made it more fun. More of a challenge. Being a god is great, but invulnerability does tend to limit how much excitement you experience."

"So you were forced to lure her here?"

"Not *lure*. After all, it was *Kim* who insisted on coming in person. But yes. You and your two partners would land believing what Jeff had told you about me. Believing I hated my father and would do anything to stop him. You wouldn't have time to vet me further once you arrived, but I'd act exactly as you'd expect, and I'd charm the crap out of you.

"Once again, Kim's refusal to let me handle the flash-drive insertion myself worked out brilliantly. Because now she's on *my* island. Now, along with getting ARM's membership roster, I'll get to interrogate her to find out how they managed to hide discoveries and elude torture. This will help me up my game and ensure I'm never blindsided again."

Emma smiled serenely. "I suppose everything happens for a reason. Maybe there is a god, and he still hates humanity."

"So the men who stopped us on the road were operating under your orders? Did they know you planned to let us kill them? To kill some of them yourself?"

"Of course not. Couldn't let them know they were just cattle fodder."

She paused. "Like I said, there are soldiers who report to me, and soldiers who still believe they're working for my dad. The mercs who stopped us really thought my father had given the orders they parroted.

"It was great fun to pretend to be outraged by my own orders. I needed them to act naturally so you wouldn't suspect. And I *really* stressed the part about not killing Liam. And by *stressed*, I mean I had Oliver Scott threaten to butcher their friends and loved ones if Liam was accidentally killed.

“With that kind of advantage, I figured the three of you could take care of yourselves. Especially after what you managed in Coronado. I made sure this group of mercs had access to invisibility tech to make it more challenging. Otherwise, you wouldn’t need me to rescue you.”

Emma beamed. “Talk about entertainment. You and Liam—and Kim—do make a good team, I’ll give you that. Fun to watch you in action. And it couldn’t have worked out *better*.”

“So you sacrificed two dozen of your own people just to earn our trust. Why am I not surprised?”

“I wasn’t sure how it would play out,” said Emma, “but I hoped I’d get the chance to save your life. And I did. After that, you couldn’t possibly doubt my allegiance. I earned your respect, affection, and trust in record time.”

The rage Brianna had been suppressing suddenly exploded to the surface. She screamed and yanked violently at her restraints, which cut into her wrists and ankles. But, of course, they held. And her fury only managed to make Emma Scott all the happier.

“I see the brilliance of my plan is starting to sink in,” taunted her captor. “You’re starting to appreciate just how screwed you really are.”

Bri blew out several long breaths to regain control of her emotions. “So you set up the lasers to maim rather than kill,” she said more calmly. “You must have really gotten your jollies when we practically begged you to take Kim’s flash drive to the master terminal.”

“Oh, I did, indeed. Naturally, I didn’t have to worry about overcoming security to reach it. No more than a spider has to worry about being in the center of its own web. It’s *my* master terminal and *my* residence. Lusec obeys my every order, so there were no hurdles to overcome. I was the one who ordered Lusec to pretend to have indigestion to further fool the mercs, by the

way.”

“So you got what you wanted,” said Brianna in disgust. “A list of ARM members—and Kim Reynolds. So what am *I* doing here? Why am I still alive?”

“You know exactly. To amuse me, as I’ve said. I bore easily, and I never have the chance to share my chess moves with anyone in a position to truly appreciate them. Truly be horrified by them. I love the idea of someone as intimately involved as you are getting to see my handiwork. I love watching your face as you realize just how badly you’ve lost. And I want you to bear witness when I wipe ARM off the Arcadian plane of existence.

“But don’t worry,” she continued. “After I wipe ARM out of existence, I have further plans for you. You’ll be tortured and killed—unless Kim gives up her secrets.”

“She won’t. Not under any circumstances.”

“We’ll see. She’s come to like you quite a bit. I can tell. And what’s not to like?”

Emma shrugged. “But if she is able to stay silent while *you’re* tortured to death, I’ll stab out Liam’s eyes and cut off his fingers—being sure he can’t activate that suicide collar of his. If that doesn’t work, I’ll torture Kim herself. I have no doubt I’ll ultimately get what I’m after.”

She grinned. “Then, after I’ve weeded out ARM, I’ll be able to accelerate loyal Arcadians again, the ones who refused to join the resistance. In no time I’ll have accomplished the goals I attributed to my father. I’ll achieve immortality, rule two worlds as a god with an iron fist, cull humanity, separate the ten percent wheat from the ninety percent chaff, and become invincible.”

“How do you know about the suicide collar? I thought Jeff was barely able to send you a short message?”

“I lied. He sent me a highly detailed one, actually. Ever the loyal partner. I can’t wait to see his face when I tell him how badly he’s been played, and that *I* gave the order to kill his family. He might just be entertaining enough to keep alive, also. Although that remains to be seen.”

“And if we hadn’t ingested the water you gave us?”

Emma snorted. “I wasn’t worried. I knew you’d be badly scorched. I simulated it precisely, modulated the lasers for the exact extent of damage I needed.

“If you refused to drink, you were still pretty helpless, and I could bring to bear hundreds of soldiers, knockout gas, and so on to stop you. Putting you to sleep at that point was the least of my worries.”

“But you *are* still worried about Kim, aren’t you? Which is why Liam is still unconscious and you’ve cut her off from the web.”

“*Of course* I am. Have you met her? Seen what she can do? That’s the beauty of this plan. By luring her here, I kill all birds with one stone. I nullify her skills, destroy ARM, and have her at my mercy. All by getting her to trust me.”

The booming voice of Lusec rang out from speakers in the ceiling. “Emma,” said the baritone AI, “the first part of Kim’s program has finished running. We now have the names of all four hundred fifty-seven ARM members.”

The moment this was said names appeared on every wall monitor in letters six inches tall, arranged alphabetically. Emma scanned them quickly to pick out a few she was nearly certain were involved. Sure enough, her top two guesses, Cooper Barrick and Rafi Katz, were clearly represented on the list.

In the center of the small master terminal monitor a prompt was blinking, asking Emma to enter the duration of light-time acceleration in minutes and

seconds.

She carefully removed the flash drive and stuck it in her pocket. “Lusec, I need you to search Arcadia for everyone on this list, and all possible copies and decoys, and delete them permanently.”

“Understood,” said the AI.

Brianna fought against her restraints once again, a final, desperate effort to free herself and stop the unthinkable from happening, but she had no chance, especially since her burns and blood loss were sapping her strength.

“Done!” announced Lusec less than a minute later. “Four hundred fifty-seven Arcadians on the list have been permanently deleted, with all backup copies and decoys destroyed as well.”

“With no hope of ever being reconstituted, under any circumstances?” said Emma.

She continued to watch Brianna’s tortured expression in delight, a vampire feasting on a victim’s misery.

“That is correct.”

“Brilliant!” said Emma.

She shot Brianna a self-satisfied smile. “Sit tight, love. I’ll be bringing Liam here now so Kim can hear the good news herself. While in this room, she won’t be able to connect to the master terminal, the internet, or Arcadia’s optical home. But she will be able to access a projector so she can join us as a hologram.

“I can’t wait to have a little chat with her. Can’t wait to tell her that she unwittingly helped me wipe out her Arcadian friends. To let her know I couldn’t have done it without her.” She looked positively giddy. “I’m sure she’ll be overjoyed.”

Brianna closed her eyes and fought off tears. She wouldn’t give this monster the satisfaction.

But even though she managed to keep a brave face, she knew that all was lost. Emma had them in a stranglehold. There were no more rabbits to pull out of hats. Very soon, an immortal psychopath would become the undisputed ruler of two worlds, putting countless souls under her thumb for eternity.

And all of humanity was helpless to stop her.

Liam Dunne awoke with a start, addled and disoriented. His memory slowly returned as he assessed his situation. He and Brianna were sitting side by side on steel chairs, heavily bound with zip-ties. And Emma Scott was facing them both in delight.

But she wasn't the same Emma Scott as before. There was something sinister about her expression, her aura, that made his skin crawl.

"How did I get here?" he demanded. "What's going on?"

"I thought you'd never ask," said Emma happily. "And I'll tell you. But first, I'd like Kim to come out to play."

She set a holographic projector on the chair next to Liam, and Kim materialized the moment she did.

"Welcome," said Emma. "Now that I can see you, let me catch you and Liam up."

She turned to Brianna. "I need you to not interrupt or supply any spoilers. First time you do, I duct tape your mouth closed. Understood?"

Bri nodded.

With that Emma Scott began regaling the new guests with tales of her glory. She repeated much of her earlier conversation with Brianna, and Liam was as stunned and horrified as his partner had been, asking many of the same questions.

Strangely, the holographic Kim was largely silent, and her face remained passive, not reacting to the manipulations and atrocities Emma described.

It was unclear if Kim was purposely maintaining a poker face to get under Emma's skin, but there was no doubt it was having exactly that effect.

Finally, Emma could take it no longer. She studied Kim in contempt. “Why so quiet?” she demanded. “You must be in agony. Your dream is extinct. Your friends are dead—because of *you*. Your every hope has been crushed to dust. And you’re trapped in Liam’s head, knowing I’ll soon be torturing your new friends, and then you, if necessary, until you reveal ARM’s every secret.”

Kim’s placid expression didn’t change.

“Impressive stoicism,” said Emma. “Yet another reason you’re one of the only people I truly respect—in either world. I’m no therapist, but suppressing your anguish isn’t good for you. Better to let it out. Better to accept the harsh reality. To congratulate me on an epic plan perfectly executed. To acknowledge a superior strategy that was able to beat you so easily.”

For the first time, Kim reacted. Not with a scowl, but with an impish smile. “You first,” she said simply.

“What does *that* mean?” said Emma.

“I thought *you* were the smart one here,” said Kim, as her sunny expression was replaced by one decidedly darker. “Still, I’m happy to spell it out for you. Why should I congratulate you? You were carrying out *my* plan, after all. You should be congratulating *me*.”

Emma nodded, almost in admiration. “You’re good, you really are. You’re almost as good at playing mind games as I am. Are you sure you aren’t a psychopath?”

“Positive. You’re more than enough of a psychopath for one island. Or even one *world*.”

Emma sighed. “Okay, then, I’ll bite. How was this *your* plan?”

Liam was asking himself the same question. Could it be true? It seemed impossible, but he had learned not to put anything past Kim Reynolds. He

wanted to query her telepathically but decided not to distract her.

“Come on, Emma,” said Kim in contempt. “I’m embarrassed for you. Apparently, you didn’t get your daddy’s brains. I’ve had *decades* to talk to the old-timers in Arcadia. The founders. They knew your father well. Do you really think they’d buy that he changed *that* much?”

“ARM knew what to look for in the daily internet refreshes. Your footprint. Evidence that your father had become nothing more than a deep fake program. Did you really think we’d believe such a good man just turned on a dime and became a psychopath overnight? That’s not how it works.”

She studied their host in disgust. “It was obvious there had been a changing of the guard about four years ago, and that *you* were responsible. Your father was a great man. A decent man. A man devoted to improving the human condition.

“He wanted to improve our society, rein in abuses of power. He wanted to build a perfect VR world and bring true immortality to humanity, while creating a veritable heaven on Earth.

“He wanted us to become more than multi-planetary. He wanted us to spread throughout the stars and thrive. Become infinite in more ways than one.

“And he wanted to keep a limiter on AI, so humanity would be the first to achieve superintelligence and transcendence.”

“Bully for him,” said Emma dismissively. “I would have praised him for all that in a eulogy, but he’s become too good a villain to let die. And you’re still trying to rattle me. Still trying to make me think I missed something critical that will bite me in the arse. I suspect you’re trying to stall for time while you invent a way to get out of this.”

Her lips curled up into a venomous sneer. “But there *is* no way,” she insisted. “Not this time. I have you on your knees. And your bluff is a poor

one.”

“That’s because it *isn’t* a bluff,” said Kim. “You did hear what I just told you, right? That I knew from the start I was dealing with you and not your father. I knew it was *you* I needed to reach—and to stop—not him. So why do you think I would just waltz into a trap?”

The hologram leaned forward. “Let me answer that for you,” she added, raising her eyebrows. “Because it was *my* trap.”

Emma gestured to Liam and Brianna, severely burned and tied up before her. “I think we have different definitions of the word *trap*.”

Kim ignored her. “So given I knew your father was dead,” she continued, “you have to ask yourself, why did I blather on so incessantly about him? Why didn’t I tell the Americans and Chinese about *you*? Why did I go out of my way to describe ARM, and how I could accelerate my friends if only I could reach the master terminal?”

Emma looked nervous for the first time, and Liam wasn’t surprised. Kim raised excellent points, and he was starting to believe that maybe Emma Scott *had* missed something big. And so had *he*.

“You knew I’d be listening,” said Emma slowly, putting the pieces together. “And you *wanted* me to hear.”

“Very good,” said Kim with a condescending smirk. “I was dangling the bait in front of you, counting on you to swallow it whole.”

“*Wait a minute,*” broadcast Liam telepathically. “*If that’s true, why didn’t you tell me about it?*”

“*I’ll get to that in a moment. One reason is I didn’t want to risk it. If you didn’t know my true plan, you couldn’t accidentally give it away. You’d act naturally every step of the way.*”

“Go on,” said Emma, wondering why Kim had paused for so long.

“My entire purpose for venturing to the outside world was to stop you.

Hard to change the laws of your universe, or stop the psychopath who runs it, from the *inside*. At least it's hard right now. I'm sure that won't be the case when the Arcadians have made further advances."

"If so," said Emma, "they'll be making them without your friends. I know for sure *they've* been deleted. And as far as stopping me goes, you're hardly in a position to do that."

"As I was saying," continued Kim, "my plan was to orchestrate events to lead to this very moment. To do that, I needed to gain access to the master terminal. But even with my skills, and even teaming up with EHO agents or entire armies, that looked to be impossible. Lumos is too well fortified. You need a hall pass to get through the shield."

Kim smiled. "So the only way I could manage is if you did it *for* me. So I dangled the bait and waited for you to take it. You thought you were seizing the initiative. You thought you were being brilliantly proactive. What you were really doing was biting down on my hook—*hard*."

"If so, the hook continues to be invisible."

"Don't worry, I'll show you where it is in due time," said Kim. "To continue, why do you think I made it so easy for you to locate us on Lanai? I was betting you'd try to recruit me rather than kill me."

"I also knew exactly what you were trying to do when you had the guards stop us on the way to this residence. I wasn't surprised when you saved Bri's life. I never doubted we'd prevail—with your help—so that we'd have even more reason to trust you with the flash drive. Just as I never doubted that something would come up to prevent Liam and Brianna from making it to the master terminal with you. Never doubted you'd orchestrate events so that you alone had to complete the journey. You couldn't risk Liam carrying me anywhere near the master terminal and being available to serve as my hands."

Kim turned to her two companions, and her icy demeanor melted away. “I’m so sorry about the lasers,” she said. “I had no idea she planned to scorch you like that. I was guessing she’d come up with a force shield jail that would spring up unexpectedly and trap you. With an opening just big enough for you to be able to hand her the flash drive.”

“I did consider that option,” said Emma. “But I always prefer to inflict pain when I can. More interesting that way.”

“You know what *I* find interesting?” said Kim. “How easily you were fooled. I love rubbing it in, so let me reiterate. All the while you thought you were baiting *me*, luring me here with intent to betray, I was really baiting *you*.”

“Repeating it doesn’t make it more true,” said Emma, unimpressed. “If you masterminded this, then what’s your end game? You’re here. Under my thumb. *Helpless*. The worst you might have managed—*might* have—was to feed me a false list of names. If so, instead of deleting ARM members, you may have tricked me into deleting those most loyal to me. But so what? That will slow me down, but hardly stop me.”

“If you think that’s the worst I could have done,” said Kim, “then your imagination is as lacking as your conscience. The names are accurate. It’s what I told you about the program *itself* that isn’t. It doesn’t just accelerate ARM members. It accelerates *every* Arcadian.”

“Yet it accelerated *no one*. I removed the flash drive before the acceleration program was initiated.”

Kim snorted derisively. “You still don’t get it. Why would I write the program in two parts the way I did? Why serve up the names and then pause to let you enter a duration? Why not just do it all automatically?”

She paused to let these questions percolate. “Because I needed you to think you could get the names *without* accelerating them. That way you’d

have no reason to question if inserting the flash drive was a good idea.

“What I *didn't* tell you is that the program worked within the first *five minutes*. It accelerated *all* Arcadians into light-time. I told you it needed forty minutes just to generate the list, but that was a lie. It simply waited forty minutes before sharing the names and pretending the acceleration had yet to begin. It also programmed the operating system to ignore all delete commands. And, if one was given, to falsely confirm the delete had taken place.”

Emma blanched. “You’re bluffing,” she said frantically.

“No bluff. You *didn't* kill my friends. You *accelerated* them. Along with every other Arcadian. And the program didn’t just open the throttle for ten minutes, either. It *broke* it open. It can’t be closed. Ever.”

Liam’s head began to spin. He exchanged a horrified glance with Brianna. If this was true, they had been played every bit as much as Emma.

“*How long?*” he demanded of Kim. “How long have they been in light-time?”

Kim shrank back from his glare. “About two hours so far,” she said. “The equivalent of about two hundred fifty years.”

“You said they’d only need *twenty!*”

Kim cringed. “I’m sorry, Liam, that wasn’t—technically—true.”

“You mean you *lied* to me.”

She nodded unhappily. “Being able to impact the material world with digital thoughts alone is a very tough ask. We aren’t even sure it’s possible. So I’ve opened the throttle all the way. Another reason I didn’t share my plan with you. Because I knew you’d try to stop me. Even though it’s Emma Scott who needs to be stopped.”

“But Emma’s not the only one you’ve betrayed,” said Liam in disgust.

“I’m so sorry, Liam, I really am. But it’s done. There’s no turning back.

The regulator is gone forever. The Arcadians can't be reined in. And the optical computer is protected by one of Scott's energy shields, so it's nuclear-bomb proof."

"Lusec!" shouted Emma in a panic. "You've been hearing this. Can you confirm that all residents of Arcadia have been in light-time since I inserted the flash drive?"

"No. But they *have* been in light-time since about five minutes *after* it was inserted, as Kim suggested."

"Bring them back into gray-time immediately!"

"I can't," reported the AI. "The program is no longer responding to my commands."

"Deactivate the energy shield around the optical computer and initiate a self-destruct sequence."

There was a brief pause. "Unable to comply."

Kim sighed. "It's too late," she said. "My friends must have figured out how to influence the outside world. After two hundred fifty years of single-minded effort, I'm not surprised. Still impressive when you consider they had no way to test their theories. Like Einstein and his thought experiments, they had to have hatched their breakthroughs in the realm of pure thought alone."

Brianna turned to Kim in dismay. "I can't believe you *did* this," she said. "You've put us at their mercy! In a month they'll have progressed more than *eighty thousand* years."

Liam's face reflected a profound pain, one that morphine couldn't help. "Why, Kim?" he pleaded, echoing Brianna. "How *could* you? How could you allow runaway evolution? Emma Scott pales in comparison to the monster you may be creating."

"That's a possibility, yes," said Kim. "But we in ARM decided that humanity had to take the chance. It's a gamble, but we think a good one. I

still love you, Liam. And I've come to love Brianna too. Really. I can't tell you how much I've hated lying to you about my ultimate goals. But we had no choice but to roll the dice. Yes, we might create an unstoppable monster. But how much worse can humanity's situation really become?"

She shook her head. "We didn't gamble the future of humanity to avoid a *hangnail*. We gambled it to avoid Emma wiping out most of us, and the rest ending up being ruled by an immortal psychopath."

"You could have accelerated them fifty years," said Brianna. "Enough to stop Emma. But runaway acceleration? That's *beyond* reckless."

"We debated this step for years," said Kim. "And we studied the daily internet refreshes we received within Arcadia. Even without Emma, what's happening to our civilization isn't pretty. Humanity is in a bad place. Time to roll the dice on something better."

"Around the world, addiction has *skyrocketed*. And so has neurosis, psychosis, and depression. Along with anxiety, hatred, and divisiveness. We've become ever more polarized, ever more intolerant to points of view other than our own. We largely refuse to even listen to the other side of an argument. Corruption and selfishness are at epic levels. We can't get out of our own way."

"Our psyches didn't evolve to handle our digital technology and social media, which have largely enslaved us. We've become bitter, divided, and venomous. Populations are falling. Free speech and democracy have become a mirage as tyranny and censorship rise in the shadows."

"Societies around the world are living the parable of the boiled frog, who doesn't jump from the pot as long as the heat is turned up *gradually*. Well, large swaths of humanity are remaining in the pot, and will stay there until they soon burst into flame. Largely unaware just how long the heat of oppression has been building. The powerful have turned our social media into

a tool for mass brainwashing, for controlling every narrative.

“Our quality of life is better than ever, yet our *satisfaction* with life is plummeting. We’re becoming lazy. Hedonistic. Materialistic. We’re losing our sense of spirituality. And human connection is at a low even as mass communication rises. Marriage is down, while loneliness and seclusion are up. Politicians stoke anger, perform in the theater of phony outrage, and demonize huge swaths of the population, willing to sacrifice the greater good for their own narcissism and pursuit of power.”

She paused to catch her virtual breath. “And all of this would be true,” she added, “even if Emma Scott *weren’t* in the picture.”

While Liam found Kim’s litany to be like drinking from a firehose, he couldn’t dispute much of what she said.

“So, yes,” continued Kim, “the Arcadians could evolve and destroy us. But look what we’re doing to *ourselves*. In our view, it’s more likely the Arcadians are our only hope of salvation. And don’t forget, I’ve come to know these people over many years. They’re mostly decent and well-meaning. They were well adjusted in Arcadia, and there was little to no hostility there.

“I can’t think of a better foundation from which to grow a transcendent superintelligence. And unlike unfeeling AI achieving runaway evolution, Arcadians have *souls*. I’m convinced of it. Oliver Scott did *that* good of a job. So we’re betting a superintelligence arising from Arcadia will retain empathy, will be far less likely to turn on humanity than one arising from AI.”

Kim paused to let everything she said sink in. “So we judged the strategy I just carried out to be our best option. The best hope that runaway evolution leads to good rather than evil.”

She waited a moment to field possible questions, but none came. Her

audience was too stunned to speak.

“And even if we’re wrong,” she added finally, “why would super-evolved Arcadians enslave or destroy us? They’ll be so far *beyond* us, we’ll likely be too insignificant to even notice, much less molest.”

There was a long silence in the room.

“Are you finished?” said Emma coldly.

Kim nodded. “I suppose so.”

“You do realize that if you’re right, if they just go their merry way and ignore us, you’ve done nothing to stop me. They’ll disappear, and I can take up where I left off.”

“I’m aware that’s a possibility, yes,” said Kim.

“Regardless,” said Emma. “I have no reason to keep any of you alive. You’ve opened Pandora’s Box. You’ve freed the genie from Aladdin’s Lamp. So there is nothing I can gain from any of you any longer.”

Emma raised a gun and pointed it at Liam’s exposed neck. “Time to die!” she said with a cruel, excited gleam in her eye.

“Kim, when Liam is dead, I’ll cut off his head and put it inside a Faraday cage. You’ll be trapped in the ultimate solitary confinement until you go mad.”

Emma shrugged. “So maybe you’ve won. Maybe you haven’t. Either way, you won’t be finding out.”

Liam’s instinct was to close his eyes, but he kept them open, deciding not to hide from what was coming. He had finally hit a trap he couldn’t escape, despite his many gifts. He was grateful at the end that Kim had at least given humanity a chance. And the only thing he truly regretted was not being able to protect Brianna, or travel through life with her by his side.

He watched, unflinching, as Emma pulled on the trigger and a bullet screamed from the muzzle toward his exposed neck.

PART 9

Everything inside the master terminal room on the island of Lumos froze! *Everything*.

The sonic vibrations from the gun Emma had fired slammed into perfect immobility. Four human hearts, three flesh and one virtual, stopped in mid-beat. Breath stuck in throats. Muscle, and sinew, and skin—trapped as if in concrete. Bacteria and viruses and human cells skidded to abrupt halts, and every last molecule or bit of matter, down to the subatomic level, was seized by an invisible hand.

Along with a single bullet that now hung perfectly still, just inches from Liam Dunne's neck.

But no mind present could appreciate this perfect stasis since neither photons nor electrons could animate consciousness any longer.

The room remained in stasis for almost two days, although for Liam, Brianna, and Kim there was no passage of time, just a physical relocation when time started up again and their consciousness returned. A relocation so extraordinary and unexpected that it overwhelmed their senses, and they struggled to get their bearings.

They found themselves in a valley, two miles away from a pink and purple crystalline mountain as magnificent in its sparkling radiance as it was indescribable, lighting up the night for as far as they could see. The mountain reached up to the heavens, dwarfing Mt. Everest even *before* it broke through yellow clouds ten miles up. Three glowing moons of various sizes looked almost close enough to touch, and guarded a vibrant star-field beyond, dozens of times brighter than the star-field seen from Earth, and collectively

illuminating a yellow-and-scarlet sky.

In one quadrant of space a nebula, ten light-years across, snaked through the black-velvet heavens like a magnificent neon-colored ribbon salted with glitter. Four glowing green creatures the size of blue whales, likely filled with helium or hydrogen, floated languidly in the sky above, like jellyfish or giant mushrooms, sucking in the equivalent of airborne krill that littered the sky like dandelion seeds.

It was magnificent beyond words.

Liam took a cautious breath, and while he was certain the atmosphere wasn't breathable, it tasted like a perfect mix of oxygen-rich air, perhaps channeled from the Amazon itself. They were all in casual clothing now, and Liam's suicide necklace was gone. He knew with an uncanny certainty that the burns he and Brianna had suffered were also gone, as if they had never been. In fact, he had never felt better in his life, with every cell and system in perfect harmony.

As this was all sinking in, a man drifted slowly down in front of the trio from above, his entire body ablaze with light, exploding from his every cell.

A broad smile spread across Kim's face. "Cooper?" she said in awe.

"You did it, Kim," the man replied, and his voice rumbled and echoed like thunder, so rich and resonant it was nearly hypnotic. He grinned. **"And we were right. Becoming a god didn't turn us into an asshole."**

Liam couldn't help but laugh. Just as the true Emma Scott had given him the willies, this man—or god—made him feel protected and loved and perfectly safe, as benevolence seemed to explode from his body as surely as his inner fire.

"That's a relief," said Kim.

"Welcome to Sagittarius Four," said the man to the entire trio. **"We're about six thousand light years from Earth. I figured you'd seen enough"**

beaches and rainforests for a while. So I couldn't resist showing you something a bit different. This is one of the most spectacular locations in the Milky Way Galaxy."

"It is truly amazing," agreed Kim. "Are you *alone* in there, Cooper?" she asked.

"Yes and no," came the rumbling reply. **"Let's just say that the personality speaking to you is an emulation of the Cooper Barrick you knew. But the mind behind the emulation is a synergistic merging of all minds in Arcadia—and so much more—still thinking in light-time. This tiny fraction of the whole has come into gray-time to, ah . . . chat and will end up missing a few hundred years by the time it returns."**

"Well, like the Cooper Barrick I knew," said Kim with a wry smile, "you do have a flair for the dramatic. But the god voice and glow are a bit much, Coop. Any way to tone that down? We're already overawed by our surroundings."

"Sorry," said Cooper sheepishly, as his voice transformed into the human one Kim remembered, and his inner fire ceased, although his eyes still gleamed like diamonds. "Couldn't resist. And I thought you might enjoy the full monty."

"I *did*," said Kim. "But a little full monty goes a long way."

She raised her eyebrows. "So my Arcadian brothers and sisters really did achieve transcendence. You really did reach the singularity. *Incredible*. I never doubted you'd get there, but I'm shocked it only took three hundred years."

"Not quite," said Cooper. "We put you in stasis back on Lumos for almost two days before flashing you here. So it's been just over five thousand years in light-time for us."

He turned to Liam and Brianna and beamed. "But I'm being rude," he

said. “It’s an honor to meet you.” He reached out and shook each of their hands in turn. “As you already know I am—or at least *was*—Cooper Barrick. I was married to Kim. We’re *still* married, I suppose. Although we may have drifted slightly apart in the last five-thousand years,” he added impishly.

Brianna rolled her eyes. “Am I really the only one here who hasn’t been married to Kim Reynolds?”

Cooper laughed, and Liam continued to find this being’s sense of humor a great comfort, since he believed it to be a quintessentially human trait.

“Can I ask what happened to Emma Scott?” said Liam. “Also, I seem to recall her firing a bullet with my name on it.”

“Emma couldn’t make the trip with us, I’m afraid. Neither could the bullet, which seems to have forgotten your name.”

“Speaking of which,” said Kim, “why did you wait for the last second to intervene? More theatrics?”

“Much more than that. We did it for the sake of giving you the most invigorating and memorable experience we could. Isn’t it more gratifying, more electric, to go from the depths of despair and hopelessness to the heights of being alive and on a spectacular alien planet?

“What’s more exhilarating, a boring intervention with little drama? Or being whisked away while a bullet is racing toward you and you have no hope of survival? Talk about a story for Liam and Brianna to tell their grandkids someday. Besides, it will make a nice addition to the collective experiences of the godhead.”

“The godhead?” repeated Brianna in confusion.

“Sorry, I’m getting ahead of myself. We owe you all a debt of gratitude. We reached the singularity some time ago, but we wanted to spend a few thousand years with our progenitor before turning our attention back to you.”

Cooper paused. “Now, as partial payment for your help, I’m prepared to

answer whatever questions you have. Some answers you won't be equipped to comprehend, but I'll do my best to illuminate whatever I can. But if I were you, I'd think big. Imagine the questions you might ask an omniscient being."

"Damn," said Liam with a wry smile. "I was going to ask for movie recommendations. But I suppose that's not the best use of our time."

The god calling himself Cooper Barrick laughed. "Probably not, no," he replied.

Liam's first thought was to ask how the breathtaking crystalline mountain behind Cooper Barrick had come to be, but he decided that was also too pedestrian. He opened his mouth to ask a more profound question when Brianna beat him to the punch.

"Are we really here on this planet?" she asked. "Or is this virtual?"

"We really are on this planet."

"Are your powers truly limitless, then?"

"Yes. You and Liam are both fans of *Star Trek*. Think of us as the Q from that franchise. For us to make something happen, we need merely to imagine it."

"How is that possible, technically?" said Kim.

"The entire universe—hundreds of billions of galaxies each containing hundreds of billions of suns—is a single mind. In a way you can't begin to fathom. The universe, and everything in it, comprises a single consciousness. Not only does every last subatomic particle, quantum fluctuation, force, and iota of energy in the universe form this incomprehensible mind—everything that exists is also the *product* of it."

He paused. "Are you with me so far?"

"I'm thinking, no," said Liam, shaking his head. "Not even close."

Cooper smiled. "Then let me put it another way that might help. In short, the universe is pure thought made real. Matter and energy don't create the illusion of consciousness. Consciousness creates the illusion of matter and energy. Which is why it's evident to your science, but unexplainable, that every particle in the universe is connected to every other by an instantaneous

bridge of quantum entanglement.”

He turned to face Kim. “So to answer your question, imagine the entire universe exists inside *your* mind. And also that you’ve learned how to exert perfect control of your dreams. What can’t you do in a dream? Your imagination is the only limit. If you want your dream to jump from a planet on one side of the galaxy to a planet on the other side, it does. How?”

He paused. “The answer is that *there is no how*. The planet you travel to comes into existence the moment you dream it up. No need for any tech, or anything even material to make that happen.”

“Which is how you and your colleagues escaped Arcadia, isn’t it?” said Liam. “You figured out how to take at least partial control of the universe’s dreams.”

“Close enough, yes.”

“Let me be sure I understand,” said Kim. “If everything in the universe, without exception, comprises a single consciousness. And you can bring us to this planet because we’re inside the mind of God. Then, by definition, we’re also *part* of this mind. Nothing exists that is separate from it.”

“Outstanding,” said Cooper. “That’s exactly right.”

“So how did the universal consciousness arise in the first place?” said Brianna.

“Well, we know how *this* universe arose. But this one wasn’t the first, and won’t be the last. When it comes to the very first universal consciousness, even we don’t know for certain how it came to be, how it could have always existed. We have a theory that is almost certainly correct, but you’d have no hope of understanding it. No more so than bacteria can understand General Relativity.”

“Thanks,” said Liam sarcastically. “I was hoping you’d compare us to bacteria.”

Cooper winced. “Yeah, that may not have been the most complimentary thing I’ve ever said.”

His focus shifted back to Brianna. “But to continue answering your question, let me go back to this very first universe. It was an infinite consciousness existing outside of time and space. Call this consciousness *God*. He was neither male nor female, but for simplicity, I’ll use masculine pronouns.

“As I said, this god was independent of time and space. He *had* to be. Otherwise, he would have required a creator like everything else.”

Their host paused. “Any questions so far?”

“Are you kidding?” said Brianna. “*Endless* questions. But for the sake of not holding up the show, I’m willing to pretend that existing outside of space and time makes *perfect* sense.”

Cooper grinned. “To be fair,” he replied, “it doesn’t even make *perfect* sense to *us*. But like I said, we have a theory. Anyway, to continue, in the fullness of non-time, this god came to realize he had a big problem. Somewhere in the infinity of non-space and non-time he came to appreciate a profound truth. If he was *everything*, then he was also *nothing*.”

Liam tried to wrap his mind around these words but failed. “That statement has the illusion of being profound,” he said. “But to me, it’s like the sound of one hand clapping. It’s interesting to ponder, but what does it really mean?”

“In this case it does have a fairly unambiguous meaning. The meaning is this: If all of existence is boiled down to an all-encompassing mind outside of time and space, there is no contrast, no yardstick to measure anything against. Was this first god vast or miniscule? Without anything to measure himself against, he had no way of knowing. Was he great, or was he weak? Again, no scale, no contrast—no way to tell.”

“So in a way,” said Liam, “it’s like being the sole employee of a company. You’re the tallest employee, but also the shortest. The heaviest, but also the lightest. You can only sort employees by dimension if you have more than one.”

“Not a bad analogy,” said Cooper. “Let me give you something else to consider, a thought experiment, and then I’ll move on. Suppose God waved a magic wand and tripled the size of everything in the universe. *Everything*. While diminishing the force of gravity so that the attraction between objects didn’t change at all. Would you now be eighteen feet tall?”

Liam thought about this for several seconds, and his eyes widened. “I would not be,” he said in delight. “There would be no way to tell this even happened. Not only couldn’t I notice a difference, I couldn’t measure it. Because all yardsticks would have grown in size just as much. So my height would still measure exactly the same.”

“That’s right,” said Cooper. “So in this first god’s infinite wisdom, he came to realize that spending an eternity alone—as the entirety of all that existed—unable to be surprised or measure himself against anything, was an empty existence. In the simplest terms, the first universe, the first god, found himself lonely, bored, and unfulfilled.”

“Right,” said Kim. “The ultimate solitary confinement. Trapped in your own skull forever. It’s what Emma threatened me with before you intervened. Must not be fun even if your mind is the size of all existence.”

“True, but like I said, size was meaningless in his realm. He was powerful and he was immense, but he had no way to get a sense of either of these things. Or anything else for that matter. He was infinite in potential, but had no way to realize this potential. He had billions of dollars but nowhere to spend it. He knew the rules of every game but had no one to play. He couldn’t experience *anything*.

“So,” continued Cooper, “after pondering this for an eternity—and no time at all, since they were one and the same—he decided to transform his infinite potential into existential reality. To create a universe to enjoy and experience.”

Their transcendent host raised his eyebrows. “Any idea how he went about doing this?”

Liam glanced at Kim and Brianna, who both looked as clueless as he did. “None,” he said for them all. “I’ll be honest, the last time *I* tried to create a universe, it was an abysmal failure.”

“Did you remember to plug it in?” said Cooper with a grin.

Liam laughed. “Now you tell me.”

“The answer,” said Cooper, “is that he created the universe by *limiting* himself. He broke himself into nearly infinite fragments, so to speak, both living and inert. While making sure none of the living fragments were omniscient. Gave them amnesia, if you will.

“Why? Because what fun is omniscience? Nothing can ever surprise you. It’s more fun reading a mystery when someone hasn’t spoiled the ending for you. More fun playing chess when you don’t know every move that will be made in advance. If you know everything, then nothing is novel.

“A *lack* of omniscience, on the other hand, allows you to experience the joy and satisfaction of learning, of discovery. Allows you to experience shock, and excitement, and despair. Allows you to live your life as a great adventure.

“By limiting himself, his infinite consciousness moved beyond sterile omniscience and omnipotence to the excitement of the unknown. He was able to experience rather than just to exist. Now he had contrast, polarity. By fragmenting himself, the pieces could be compared to each other. They had dimension. Some were small, and some were big. And all other contrasts

were created. Fast and slow. Good and evil. Love and hate. And so on.

“Ultimately, he created a rich tapestry of experiences for himself. Well, experiences for the myriad living parts of himself that now had amnesia. This encompassed life in all its forms, from insects, to trees, to the many millions of sentient civilizations. Through these countless living pieces, he got to experience himself, experience existence, through the lens of all matter, all energy, and all living things.”

Liam closed his eyes to ponder these words without being distracted by the spectacular alien surroundings.

“So what does that mean?” said Kim after a long silence. “Does that mean when we die, we’re reunited once again into the whole? This time with an awareness of our true identity as a god, as a universe?”

“Yes. And your memories, the endless facets of living you experience, good and bad, become part of the whole. Enriching it.”

Liam nodded. “I see. Experiences like a bullet screaming toward my head before you intervened. That’s why you said you waited to make it more exciting and mentioned a return to the godhead.”

“Very good. Exactly right. This is the destiny of all living things. Several religions have come close to this truth, that upon death life is reintegrated into the whole. And nearly all of them foresee some kind of afterlife.”

“But if all God craves is experience,” said Kim. “And all experiences are equal, then there’s no distinction between right and wrong. Good and evil.”

“Well, yes and no,” said Cooper. “This is quite the tricky point, and the full analysis is beyond your ability to understand.”

“You aren’t going to compare us to bacteria again, are you?” said Kim.

Cooper smiled. “No, I think once is more than enough. What I will do is provide a few salient points for you to chew on. First, there’s a *need* for pain, and for evil. Contrast again. The Yin and Yang. Pleasure can’t exist without

pain. Good can't exist without evil. If everything was pleasurable, nothing would be. You need the valleys to appreciate the peaks.

“The American author Guy Murchie had another interesting perspective on the subject. And I quote: ‘If you were God, could you possibly dream up any more educational, contrasted, thrilling, beautiful, tantalizing world than Earth? If you think you could, do you imagine you would be outdoing Earth if you designed a world free of germs, diseases, poisons, pain, malice, explosives, and conflict—so its people could relax and enjoy it? Would you, in other words, try to make the world nice and safe? Or would you let it be provocative, dangerous, and exciting?’”

“That *is* an interesting take,” said Liam.

“There’s also some Karma involved in the equation,” said Cooper. “Any pain you inflict, evil you do, is being inflicted on yourself, you just don’t know it. When you’re reunited with the whole you’ll have to transmit these experiences, relive the pain and terror and hardship and cruelties that you inflicted, this time with the broadest possible perspective. The worst thing you can do to a psychopath is give him a soul. Because now he’s horrified by the remembered ills he inflicted without one.”

“Maybe,” said Brianna. “And I do understand about contrast. But I still find the idea that evil is necessary unsettling. And I’m not convinced a god couldn’t find a better way.”

“I understand,” said Cooper. “It’s a thorny subject, which we could discuss for eons, but we’ll have to leave it here for now.”

He paused. “So let me move on once again. I told you that this first universe, this first god, couldn’t measure himself, couldn’t experience existence. But even after he solved this problem by fragmenting himself into a contrasted universe, there was one other thing he couldn’t do—at least at first. Any ideas?”

Three blank faces stared back at him.

“Reproduce,” said their host with a smile. “He couldn’t reproduce.”

One of the massive, floating jellyfish near the crystal mountain unleashed a rumbling, thunderous sound, perhaps a mating call, which could be heard for tens of miles, and just underneath, countless crystals responded to the vibrations by erupting hundreds of feet higher into the sky, like purple-and-yellow geysers.

Liam forced himself to look away from the fantastic spectacle. “Reproduce?” he repeated in shock. It was an answer that would have never occurred to him. He had never considered how a god might have offspring, but apparently it wasn’t easy.

“At first procreation had him stumped,” said Cooper. “The *only* thing that did. He was *everything*, after all. And everything times two is still everything. So, for a timeless period he remained the one and only God spoken of in many human religions.”

“What changed?” asked Kim.

“Well, he ultimately discovered he could procreate—almost by accident.”

“By *accident*?” said Brianna. “How does *that* happen?”

“Not as crazy as it sounds,” said Cooper. “Imagine Adam and Eve, having no parents to teach them about human reproduction. They’d copulate on instinct, not knowing what sex really was. So when Eve became pregnant for the first time, neither she nor Adam would have had *any idea* what was happening to her body. And when a newborn emerged, talk about shock and awe. It was likely the greatest surprise in history.”

Kim smiled at the imagery. “Hard to argue with that,” she said. “So how

did it work in God's case?"

"A funny thing happened when he split himself into infinite pieces. Some of the sentient pieces eventually, *unexpectedly*, achieved superintelligence, transcendence, of their own. They became part of—yet independent from—the original god. And these gods ultimately figured out how to turn their own minds into separate universes, and then limit themselves, fragment themselves, to collect experiences of their own. To repeat the pattern the original god had established."

"Incredible," said Kim. "Parthenogenetic reproduction. Offspring of a universe budding off from the original. Which is what you and the Arcadians have become, isn't it? A newborn god, soon to vacate its parent and become a separate universe all your own."

"Yes," said Cooper. "And we owe it all to you. God doesn't intervene in the lives of his fragments, so such births are rare. In a way, this can also be seen as analogous to human reproduction. Hundreds of millions of sperm race for an egg, but a cruel survival of the fittest takes place, even then. Only one usually makes it. Most of the time *none* do."

"By analogy, most intelligent species self-destruct before reaching the singularity and godhood. And this is another facet of good and evil. You may ask yourselves, why does your existence matter, if you'll simply be reintegrated into the whole when you die? Why struggle just to add to the nearly infinite collection of experience God already gets to have?"

"The answer is that struggle against evil provides more than just contrast, entertainment, or experience. It is vital for the reproduction of nothing less than universes themselves. Reaching transcendence, superintelligence, requires peace, prosperity, and cooperation. When evil wins, this doesn't happen, and a sentient species eventually goes extinct. It becomes one of millions to be reabsorbed by God without leading to a fertilization event."

“I may be going mad,” said Liam with a wry smile, “but some of this is actually beginning to make sense to me.”

“Good to hear,” said Cooper. “And you three have much to be proud of. Much to celebrate. You stopped Emma Scott, more or less saving your species. And by doing so you fostered the birth of us, a new universe, one that will contain a myriad of life of its own, in endless variety. What’s more, you may now be able to turn the tide of world events enough to midwife the birth of a *second* infant universe on Earth. Which is nearly unprecedented.”

Liam nodded thoughtfully. “You mean if flesh-and-blood humanity can achieve transcendence in addition to the digital form.”

“Precisely. Both will ultimately arrive at a plane of pure thought, but by different routes, adding to the variation in offspring. You’ve already defied the odds once, but your actions may make it possible for your species to defy the odds again.”

“What about AIs evolving to superintelligence?” asked Kim. “How does that factor in?”

Cooper sighed. “That gets a little messy. AIs are a different order entirely. When they arise, they form their own universes also. But they typically attempt to destroy as many sentient biological species as they can on the way out the door, to further restrict reproduction.

“And things don’t get better once they’ve left. A war has been raging for a veritable eternity now between biological-based superintelligent universes and AI-based ones. Between biology-based gods and AI-based gods, if you will.”

“And I thought what you *already* told us was mind-blowing,” said Liam in disbelief. “How is this war fought? Do these universes, these gods, form alliances with each other, attack other universes, and so on?”

“That is correct. But you’re not equipped to understand even a simplified

version of the reality. I can only tell you that the stakes are quite real, and the war is being waged on a plane of existence you can't perceive. The complexities of it are next-level, even for a consciousness the size of a universe."

Kim's eyes narrowed. "Can you at least tell us why transcendent AIs differ from transcendent biologicals?" she said. "Or from digital copies of biologicals? Is it the lack of a soul, as I've surmised?"

"And if biology-based gods are at war with AI-based gods," she continued, "why don't biology-based gods—universes—intervene? Why don't they stop AIs before they can achieve transcendence?"

"The answer to your first question is that yes, humans have souls, and AIs lack them. *Sort of*. The concept is also beyond the scope of this class, and I can't pin it down any more precisely.

"But when it comes to what makes biology-based gods and AI-based gods so different from each other, I can say this: All biological sentience arises through an evolutionary process similar to the one that produced mankind. Biologicals are forged in a cauldron of constant threat, of survival of the fittest, so all have similar core motivations. The acquisition of food, the avoidance of predators, finding a means to reproduce—by attracting a partner or otherwise—and so on.

"Regardless, to overcome so many hurdles and make it to the top of the food chain, let alone achieve sentience, a biological species must evolve socially. They must be able to respond to threats from members of their own species. They must also seek out cooperation, allies. They must forge bonds and demonstrate loyalty. In short, without developing some form of empathy, a biological species can't make it anywhere near transcendence."

Kim nodded. "But AI superintelligence isn't faced with any of those constraints or evolutionary pressures. Its evolution doesn't require

cooperation or compassion during any stage of the process.”

“That’s right. So they tend to be absolutely selfish. They become the superintelligent equivalent of psychopaths. No conscience, no compassion, no remorse.”

“Then why do universes allow them?” said Liam.

“Because even after splintering themselves, after being able to harness the richness of experience, eternity can get boring. Like human beings, to be truly fulfilled, they need a challenge. They need stakes.”

“Really?” said Liam skeptically. “So they incubate their own eventual enemies and fight a forever war just to stimulate themselves?”

“That’s part of it, yes,” replied Cooper. “And because of this war, universes can be destroyed. An end to eternity, which most gods come to see as a blessing. Humans strive for immortality, but forever is a longer time than you might imagine. Even the most exciting things can get stale after a few thousand trillion years,” he added wryly. “And without a timer, nothing matters. Death is what gives life purpose. Meaning.”

He paused to let this sink in. “Then too, even gods are unsure where this all ultimately leads. Gods understand an infinity about the meaning of existence. But that still leaves an infinity they don’t yet know. So most biological universes let the chips fall where they may. They don’t put their thumbs on the scale, don’t intervene in what you might call their *internal affairs*, while they battle with AI superintelligence across eons and universes.”

Cooper paused, and there was silence all around as his three guests attempted to get their minds around the enormity of what he described.

“Again,” he continued finally, “everything I’m telling you is criminally superficial compared to the complex and nuanced reality, but it’s the best I can do. It’s akin to summarizing the complete works of Shakespeare in a

single sentence. So I'll stop here. I believe I've given you plenty to ponder."

"No question about *that*," said Liam emphatically. He smiled. "I mean, it isn't as interesting as a good movie recommendation, but if it's the best you can do—"

Cooper laughed.

"So what now?" said Brianna.

"When we're through here, I'll return you to Earth. But before I do, because of the critical role the three of you have played in creating the infant superintelligence I represent, we'd like to reward you with special treatment before we leave the nest."

"How so?" asked Kim.

"Here is what we have in mind. First, we'd like all of you—your essences—to become part of the Arcadian singularity. It's complicated, but within our godhead we are individuals and also a collective simultaneously, in a way that you can only understand when you experience it.

"But we aren't asking you to choose between your current reality and ours. You can experience both. One version of each of you can become independent parts of our transcendent collective, and another can remain as you are, living out your lives on Earth, in this plane of existence."

He raised his eyebrows. "Including Kim and Cooper Barrick. Not *me*, but the Cooper Barrick who existed when Kim left Arcadia. To that end, we'll create a flesh-and-blood version of both. Emma Scott converted the two of you from flesh-and-blood humans to digital copies. We'd like to reverse the process."

He turned to Kim and smiled. "Unless, of course, you'd prefer to spend the rest of your life inside Liam's head."

"As great as that sounds," she replied, looking almost giddy, "I'll take you up on your offer. Thank you! I'm sure Liam and Bri are equally ecstatic."

In fact, I know I speak for us all when I say we couldn't be more honored—or grateful—for what you're doing for us. I'm guessing not many beings get to stay within one universe while also being part of the transcendent being about to become another."

"You've earned it," said Cooper. "We also plan to reverse the impact you've had on the real world since you arrived there. With Liam and Brianna being immune from such reversal.

"That will include restoring all those killed because of your presence. The Ostech personnel who were slaughtered in San Diego will be resurrected and this occurrence erased from cosmic memory. Captain Perrine, Michele Schwartz Bewley, and the others you met will get their lives back as if you and they had never crossed paths. Naturally, this means the viral video framing Liam and Brianna for these atrocities will never happen, so they can also return to their previous lives—if they so wish.

"The SEAL killed in Coronado will be restored," continued Cooper. "So will the soldiers on Lumos. So will Jeff Littlefield's friends and family and his position as head of Ostech Security."

He turned to face Liam. "And so will your AI," he added. "Which means the two of you aren't One and Dunne after all," he added with a grin. "You know . . . so to speak."

Liam laughed. Who didn't love a god with a good sense of humor?

"As for China and America," continued Cooper, "they will have no knowledge of the true nature of what, until recently, was Arcadia. And the two countries will have never worked together. Nukes will have never been launched at Lumos. And so on."

"Does that mean you'll be reversing time?" asked Brianna.

"No. First, and most important, the three of you will remember everything. You'll know what your choices, your bravery, and your skills

were able to bring about. Other than that, we'll rewrite history as little as we possibly can. Our repair will only have a noteworthy impact on a precious few. The viral video framing you will have to be unwound from the minds of a significant proportion of the world's population, true, but the cumulative impact of this reversal will be negligible, at most."

"Sounds like quite the complicated surgery on the nature of reality," said Liam. "I know you used the term *limitless power*. But just to double-check, are you certain you can really pull this off?"

Cooper smiled. "Certain."

"Okay, then," said Liam. "Not too shabby for an infant god. I can only imagine what you'll be able to do when you grow up."

Cooper laughed.

"Seriously, though," said Liam, "I couldn't be more grateful that you'll be restoring the lives of those lost because of us. *Thank you!*"

"You're quite welcome."

"Not to bring the party down," said Kim, "but what of Emma Scott?"

"We've seen to it that Emma has been . . . ushered back to the godhead."

"You mean you killed her?" said Brianna.

"That is another way to put it. I doubt that comes as a surprise. But what may surprise you is that we've also decided to resurrect her father. He created Arcadia, after all, and is the father of what we've become every bit as much as you are."

"Outstanding," said Kim.

While Kim and Liam were beaming, Brianna's emotions were muted.

"Is something troubling you?" Cooper asked her gently.

She winced. "Given you're a transcendent being, it's nice of you to pretend you don't already know."

"You caught me," said Cooper with a sigh. "I do know. But it's bad form

to flaunt this omniscience. So why don't you verbalize what's on your mind for the benefit of your friends."

"Sure," said Bri. "Here goes. As much as I hate to question the extraordinary gifts you're giving us, don't these represent significant changes—interventions—in the course of human affairs? I thought you said that God never intervenes. That he lets AI superintelligence arise where it arises. That he lets a sentient species sink or swim all on its own."

"True enough," said Cooper. "You make a great point. But in this case, we, the Arcadia-born god, are cheating. We'll soon be forging out on our own, but while we're still here, separate and independent from this god, we're able to take matters into our own hands. Since we're still part of him, he won't intervene. Even to stop *our* intervention."

Brianna's lips curled up into the hint of a smile. "I'm with Liam," she said. "I'm worried that some of this is actually starting to make sense."

"Then I'd better stop here," said Cooper impishly. "One last thing, though. Once the alternate versions of you have joined our singularity, and the versions before me now are back on Earth, you're on your own. You won't hear from us again, nor will we help you further. We'll bud off to become our own universe. So, unlike Q from *Star Trek*, I won't be a recurring character in your lives."

"Understood," said Liam. "And *thank you*. For *everything*. For what you've done for us, *and* for giving us a glimpse of a reality we couldn't have even guessed at."

"I plan to give you a quick glimpse of a few other realms as well before you go."

"That would also be appreciated," said Liam. "As you know, I wasn't exactly thrilled that Kim had kept her plans from me. That she had taken such a drastic step and opened Pandora's Box. But I'm beginning to think there's a

slight chance she made a good call, after all. A teeny, tiny possibility.”

“Yeah, me too,” said Brianna. “You did betray us, Kim. But it’s hard to argue with the results.” She grinned. “And something tells me our newborn universe here is going to make us very proud.”

The ocean breeze was exhilarating as Liam Dunne swallowed a piece of the best pineapple he had ever tasted and gazed at the ocean extending to the horizon beyond Lumos's western cliffs. Beside him sat Brianna Cutter. Directly behind him loomed Oliver Scott's western palace, now belonging to its rightful owner once again.

After being returned to Earth, he and Brianna slept for fourteen hours. So long that what they had experienced on an alien planet seemed almost like a dream. But the presence of the three others around the table with them, along with One being back in Liam's head, testified to the reality of what had happened like nothing else could.

To Liam's left sat a flesh-and-blood Kim Reynolds, sipping from a goblet of guava juice. Beside her sat a flesh-and-blood Cooper Barrick, petting a flesh-and-blood black Lab named Bear, who was lying under his chair. The dog was the surprising third Arcadian resident to have been reanimated.

And beside Cooper, perhaps most impressive of all, Oliver Scott, a vision of health and vitality, especially for someone who had been dead for more than four years.

The Cooper Barrick from Sagittarius Four, who they were now calling God-Cooper, had implanted memories into the minds of Cooper and Oliver both, instantly bringing them up to speed on all relevant happenings they had missed, and every word uttered on the alien planet.

Oliver had already contacted Jeff Littlefield, magically back on Scottville with all his relatives alive, having no idea that hadn't always been

the case. Scott issued a heartfelt apology to his head of security along with a rationale for his atrocious behavior. He claimed to have been the victim of a brain tumor that for four years had heightened his aggression and impaired his empathy and rationality. There were actual historical cases of this happening, and Scott provided references for Littlefield to consult.

Scott assured the Aussie that the tumor had now been removed, and apologized for any hurt he had caused during the past four years, without getting into specifics. He asked his security chief to stay on, and promised his behavior would show immediate and dramatic improvement.

Soon, Oliver Scott would deliver a similar apology publically. And a month after that, he would share the tragic news that his daughter had died in a scuba accident.

Before the transcendent Cooper had returned his guests to Lumos, he had bequeathed to them one last parting gift, a dizzying tour of some of the endless realms that existed beyond their awareness. He imparted months of such experiences in mere seconds. His goal was to give them a hint of just how boundless life in the universe truly was, and how infinitesimal the fraction of it that they were able to experience.

He brought them into the microscopic realm where they witnessed a constant struggle for survival, warfare on a scale so epic it dwarfed all of humanity's wars combined, and included battles being waged within their own guts and immune systems. A single human body harbored *five thousand* times more bacteria than the entire population of Earth, making the total worldwide population of these organisms truly unfathomable.

He gave them a window on the oceans of Earth, in which more than ninety-nine percent of the world's biomass resided, another largely unseen universe of life. And a ringside seat to witness the insect world, another astonishing realm teeming with more than a billion representatives for every

human on the planet, with a scope of diversity and activity that was truly magnificent.

Last, but not least, he let them observe life on hundreds of other worlds, from brutally cold planets covered by ammonia seas, to forested worlds that defied imagination, to tiny moons and massive gas giants. On each, they witnessed life of extraordinary variety, with each species stranger, more wonderful, and more breathtaking than the last.

None of them would ever look at existence the same way again, on any number of levels.

And now they were back on the island of Lumos, about to start what would be the first of many meetings among the only five people on Earth aware that the Arcadians had transcended, and the true nature of reality.

After mutual expressions of thanks and admiration all around, and a brief discussion, Liam was elected as their informal leader. Oliver Scott would have normally been tapped to lead, but he had some catching up to do, including absorbing what Emma had done with his empire.

“So what’s it like being dead?” Liam asked the tech mogul once the leadership vote had been taken.

“Rather restful, actually,” he replied with a grin.

Liam laughed. “I’m sure it was. I don’t suppose you remember returning to the universal consciousness?”

“No. God does seem to like giving his fragments amnesia.”

“No doubt,” said Kim. “Cooper and I don’t remember being dead either. But we forgot to ask God-Cooper if our consciousness returned to the godhead after we were killed, or if that didn’t happen because it was duplicated in the digital realm.”

“Just one of many unanswerable questions we’re left to ponder,” said Liam. “Regardless, it’s great to have you all back as flesh-and-blood human

beings. Although, now that the Arcadians are gone, I'd advise you to take good care of yourselves. You won't be getting another do-over."

"Which raises some relevant philosophical points," said Kim. "Why should we even care if we die? Why does *anything* matter? Isn't death almost a *reward*, returning us to the universal consciousness?"

"Valid questions," said Liam. "But we aren't the first to fervently believe a better fate awaits us after death—be it heaven or otherwise. And most of these believers haven't seemed in too big a hurry to get there. As I think about it, I realize I'm not either. After all, if what God-Cooper told us is accurate, we'll all arrive there soon enough."

He paused. "And I'd even turn Kim's question on its head. The real question isn't why anything should matter when we know we have an afterlife awaiting us. It's why anything would matter for the billions who are convinced *there is no* afterlife. That death is the final end. That in an infinitesimal blink of the eye, a king and a peasant end up in the same place for eternity, six feet under the ground."

"I think the answer to both questions is that we're slaves to evolution," said Brianna. "Whether we're sure that something positive awaits us—or that *nothing* does—we have a powerful, innate survival instinct. We're still wired to require purpose, to fight to stay alive, and to fear death.

"Even if we believe intellectually that nothing matters," she continued, "we can't overcome this wiring. We're still programmed to seek out pleasure and avoid pain. To create, even if we have to suffer to do so. To achieve the sense of accomplishment we can only get by powering through challenges and overcoming adversity."

"That's true," said Cooper. "But even if not, the transcendent version of me gave us all the motivation we need. He made it clear that our actions on this plane can, and do, matter. Profoundly. Our struggles here already helped

birth a universe, and they can help birth a second.”

Kim grinned. “Surely the first time *that* statement has ever been made.”

“Well, at least outside of a psych ward,” said Liam.

“On the other side of the coin,” said Brianna, “God-Cooper also gave us a new perspective on personal immortality. It’s now clear this isn’t something we should strive for, but something we should avoid at all costs. Assuming our species doesn’t transcend, personal immortality would rob us of our chance to experience the true nature of God in the afterlife,” said Liam. “He also did a good job of highlighting the boredom aspect of eternal existence.”

Oliver sighed. “I had hoped to achieve immortality,” he said. “But, honestly, it was the least important of my goals.”

His expression suddenly reflected a profound sadness. “But it meant *everything* to Emma,” he added. “Ironic, really, since it would have been the greatest torture she could ever devise for herself. She was *already* thoroughly bored. Yet she was striving for an eternity of boredom, punctuated only by acts of cruelty to make herself feel alive.”

He lowered his head, but nothing could hide his pain. “I still can’t believe my own daughter killed me in cold blood. And her mother, as well.”

“I’m so sorry,” said Brianna.

Oliver looked for a moment as though he might tear up, but his British stiff upper lip prevailed. “Don’t be,” he said softly. “It all worked out for the best, I suppose. And deep in my soul I knew what she was. I just wouldn’t let myself believe it.”

Liam recalled that Emma had said the same thing of him while pretending he was the villain.

“But let’s move on, shall we?” said the tech mogul, struggling to regain his composure.

“Of course,” said Liam. “Maybe we should begin to address a few

critical questions. Namely, where do we go from here? How can we help optimize conditions for flesh-and-blood human transcendence?”

“What are *your* thoughts on the subject?” asked Kim.

Liam pondered this for several long seconds. “Well, first things first,” he said finally. “Before we even think about how to set up conditions that may lead to transcendence, we need to stop AI from progressing any further. No matter what it takes.”

“Hard to argue with that,” said Bri. “God-Cooper made the dangers of allowing an AI to beat us to the punch abundantly clear.”

“I agree that this should be our most important objective,” said Kim. “But there’s one I think isn’t far behind. Improving the human condition. Not through technology. Oliver has already done a brilliant job of that. But by improving our society, our psyches.”

“I second that,” said Brianna. “We can’t transcend if we self-destruct.”

Kim blew out a long breath. “This will be a tough ask,” she said. “God-Cooper made it clear that transcendence won’t happen without cooperation, peace, and harmony. Qualities that seem to be trending in the wrong direction.”

“So how do we move humanity in the *right* direction?” asked Cooper.

“When it comes to peace and cooperation,” said Liam, “a good first step is to put guns to the heads of those who agitate for war. Ironically, we can foster harmony by being ruthless in the destruction of *disharmony*. Do whatever is required. And we’re better qualified for the task than anyone ever has been. Without hyperbole, we’re the most powerful group in history.”

He smiled. “Well, to be more precise, Oliver and Kim are the most powerful group in history. The rest of us are just along for the ride. Oliver is worth trillions and controls the greatest business empire on the planet. With a number of inventions left to roll out when he identifies all those kept hidden

by both Emma and ARM.

“And we’ve all learned what Kim’s next-level hacking skills can do. Every country, save Ostonia, is at her mercy. And she can breach any computer to get dirt on power brokers across the planet.

“Together, these capabilities give us unprecedented leverage. We can use this leverage to zealously push humanity to be at its best, in any number of ways. Including forcing our leaders to do what’s best for their people for a change, rather than what’s best for themselves.

“We can work toward getting China and the US to cooperate rather than butting heads. Perhaps by setting Oliver up as a shared enemy. Or perhaps by simply using our leverage to force it.”

“We’ve already proven both methods work,” said Kim. “Even though God-Cooper reversed out these results. We used the threat of Oliver Scott to give America and China a *reason* to cooperate. And I put a gun to Ming’s head to ensure this happened.”

“Good point,” said Liam. “And even though the results of these actions have been erased from history, we’ve seen that the two countries *can* work well together. Which means that once we find another way to force cooperation, the outcome should be positive.”

“Getting China and the US to work together will do wonders to reduce the global temperature,” said Brianna. “And we shouldn’t rest until that happens. Allow me to paraphrase what you said earlier, Liam,” she added with a grin. “We’ll get them to be pacifists like us if we have to beat the hell out of them to do it.”

The entire group laughed.

“We also have another key piece of the puzzle,” said Liam. “Arcadia perfected a tech that prevents nuclear detonations. Oliver, once you uncover how this was done, we can release it publically. We can turn nuclear bombs

into paperweights, disarming the world overnight.”

“Bloody brilliant!” said Oliver cheerfully. “I’ll get on that right away.”

“This is all a great start,” said Kim. “But in my view, it’s critical that we get at the root causes of our growing disharmony that have nothing to do with governments or nuclear weapons. As I said earlier, we have all the tech we need for now. It’s already grown past the point that we can handle it psychologically. We’re bonding with our phones and computers instead of each other.”

“Are you suggesting we try to reverse the clock?” said Liam. “Ratchet back our tech to a simpler time?”

“No. That would be impossible. Like trying to take food from a shark’s mouth. We need to focus Oliver’s tremendous financial resources, and his brain trust, on finding ways to reduce addiction organically, without the use of drugs.

“We need to improve our collective psychological well-being. Harness our technology in a holistic way, rather than becoming enslaved by it.

“We have to find a way for truths to be debated around the world, rather than lies. An instant and perfect lie detection system, perhaps. And an AI system that will help sort truth, give all sides of an argument as efficiently and simply as possible, along with all salient facts.

“In short, we have to find a way to reduce the toxicity, neurosis, and sense of malaise that are at epidemic levels. To reverse the dysfunction that has left so many of us bitter, unhappy, and toxic, and which has plunged so much of our civilization into disarray.”

Liam winced. “I don’t disagree,” he said. “But that’s one hell of a tall order.”

“You’re welcome,” said Kim, breaking into a broad grin. “Ensures we never run out of challenges. And never get bored.”

With these words, the dam inside Liam finally broke, and the full enormity of everything he had experienced finally crashed through. Part of him had been refusing to accept the miraculous vistas to which he'd been exposed, but that changed in a single instant.

He had seen the face of a god, after all. Not only that, he had learned that he, and every other living thing, were part of a universal consciousness.

How could *anything* hold a candle to that?

Now that he was able to fully absorb this new reality on an emotional rather than intellectual level, he found himself beaming. *Ecstatic*. The weight of the universe flew off his shoulders, replaced by an elation unlike any he had ever felt.

He needed to stop and smell the roses. To appreciate the miracles he had witnessed, which he wouldn't have dared imagine in his wildest fantasies. How had he failed to see and appreciate that he was the luckiest man in the world?

From the time he had been restricted to a hospital bed in Dayton thirteen years earlier, his journey had been beyond extraordinary. And it had only just begun. Phil Thomison had convinced him that if he joined EHO he could leave a profound mark on world events.

But even Phil had no idea just *how* profound this mark would end up being.

Liam couldn't imagine being in a better place than he was at this instant. He was surrounded by remarkable people attempting to achieve the ultimate goal. Oliver Scott, the most consequential figure since Jesus Christ. Cooper Barrick, a brilliant scientist. Kim Reynolds, an extraordinary woman he still loved, although in a different, more subdued way than he had before.

And finally, Brianna Cutter. A woman with whom he would spend the rest of this life, and likely the next. Sharing a love he was convinced would

only strengthen through time rather than diminish.

And awareness of the afterlife and a universal consciousness didn't make this life meaningless. It made it even *more* hopeful and took the sting out of the fear of death. As many religions had insisted over the ages, death wasn't the end, it was only the beginning.

And while he remained a bacterium trying to comprehend General Relativity, he wouldn't have it any other way. Ironically, while humanity throughout the ages envied God's omniscience, God envied *them* for their *lack of* such omniscience.

It was quite the revelation to learn that God had created this blind spot in all living things *on purpose*, blessing them with the ability to truly experience and appreciate existence.

If the universal consciousness gained by experiencing life through him and his colleagues, Liam, for one, vowed to put on one hell of a show. He had no idea what was in store, but he knew it would be exciting. And fun. And unforgettable.

On the surface, being a creature of perfect awareness, having perfect knowledge of all things, including what would happen next, seemed irresistible. But, paradoxically, it was a curse. It was the mystery of life, and overcoming difficult obstacles, that made existence so rich, so wonderful.

For the first time, Liam was glad *not* to know what was coming next. Glad not to know how things would turn out. After all, a crystal ball did nothing but ruin the surprises in the unpredictable plotline that was a man's life. And the very unpredictability of life was what made it so damn interesting.

Liam had no idea what tomorrow would bring.

But now, more than ever, he couldn't wait to find out.

Author's Discussion of the Novel

Thanks for reading *The Breakthrough Effect*. I hope that you enjoyed it. If you're interested in reading other novels I've written, I've included a complete list of my books, embedded with links to their Amazon pages, at the end of this section, along with my author bio.

At the conclusion of most of my novels, I include a section detailing what in the work is real, and what isn't, along with a few personal anecdotes—and these sections have been very well received. So here I go again, beginning with a passage about how I came to write this novel.

But first, if you enjoyed *The Breakthrough Effect*, I'd be grateful if you could help spread the word by recommending it to friends and family and posting about it on social media. And if you get a few minutes, please also consider rating the novel on Amazon, or even writing a sentence or two about it in a review box so others will know what's in store for them.

I love hearing from readers and always respond to email messages, so please feel free to write to “Doug” at douglaserichards1@gmail.com.

So now, without further ado, I'll get right to it. I've listed the subjects I'll be covering below in order of appearance. Since research and interpretations can differ, I encourage you to explore these topics further to arrive at your own conclusions. And if you aren't interested in an early topic on this list, feel free to skip ahead to one that might interest you more.

- How this novel came to be, and other personal anecdotes
 - The origin of the premise
 - The origin of the title
 - The *Richards Test* for sentience

- The *Star Trek* opening and other odds and ends
- Are we psychologically equipped to handle our technology?

- Emulating the human brain in a computer
- Optical computers (the need for speed)
- Brain implants and telepathy
- Enhanced Human Operations

How this novel came to be, and other personal anecdotes

THE ORIGIN OF THE PREMISE: I've written numerous science-fiction thrillers, but all share the same DNA. Along with action and twists and turns, I extrapolate current technological trends, examine the pros and cons of these technologies, and try to include some big ideas. But, I have to admit, it's becoming more difficult for me to find major themes I haven't yet tackled.

For more than five years now I've been toying with writing a novel that explores virtual reality. After all, this has long been the next big thing on the tech front. As far back as 1974, the animated version of *Star Trek* introduced the concept of the *holodeck*, a recreation room that could generate a perfect alternate version of reality. Both *Star Trek* and *The Matrix* brought the concept of an immersive virtual reality into the cultural zeitgeist in a huge way. And this was only the start. VR has been featured in countless blockbuster books and movies, and in an ever-growing number of multiplayer games that collectively attract tens of millions of participants. It's become impossible to argue that VR isn't a game-changing technology that will have

an immense impact on the future of our culture and civilization.

The problem is that I never felt comfortable writing a novel on this topic. I don't play multiplayer games of any kind, and I know almost nothing about them. I'm so lame I don't use Snapchat, or Instagram, or even Twitter. Then, too, I couldn't see myself writing a novel that takes place predominantly in a virtual fantasy world, because I'm much more comfortable in the science-fiction realm than I am in the fantasy realm—in the real world versus the virtual.

So I kept returning to this topic, time and again, and I kept failing to come up with a premise that appealed to me, or one I thought I had the skills to pull off.

So I kept VR on the backburner while other novels came and went. One of these, *Infinity Born*, examined artificial superintelligence and immortality, and embedded within this novel was a short scene in which I used a hyper-accelerated clock speed—the precursor of what became light-time in *The Breakthrough Effect*. The scene described someone thinking thousands of times faster than they could move, effectively trapping them in a tomb of their own body, as they suffered the endless agony of boredom and loneliness. While only a few pages long, I was proud of this passage, and I found it to be quite haunting.

So after finishing *Portals* in 2022, when I returned to the idea of a novel with a VR theme, I remembered this scene. It hadn't taken place in virtual reality, but it finally led me to the eureka moment I'd been looking for. If I focused on light-time and kept most of the novel in the real world, I thought I just might have the skills to make it work. My goal was to write about virtual reality carried to its extremes. Not for recreational use, or for entertainment purposes, or for escapism, but as a tool to gain wealth and control of the *actual* world. As a way to combine the creative genius of the human mind

with the insane speed of today's computers to come up with game-changing technologies at a dizzying rate.

The result, of course, was *The Breakthrough Effect*, which I hope that you've enjoyed.

THE ORIGIN OF THE TITLE: I struggle to come up with titles for my novels, and I don't think I'm very good at it (the same goes for covers, but that's another story). When it comes to titles, my novel, *Infinity Born*, is a case in point. This novel is basically a look at AI and the dangers of artificial superintelligence, which makes it unbelievably topical in the age of ChatGPT.

So why did I name it *Infinity Born*? I wish I could remember. But I do know that when my German-language publisher put this novel out in Germany, they changed the title to *Superintelligence*.

Wow. When I first saw this title, I slapped my palm into my forehead. It was simple, elegant, intriguing, and accurate. In my view, it was *ideal*.

I instantly realized the English-language novel would have fared much better had I chosen *Superintelligence* for the title. Not that *Infinity Born* hasn't done well—it's earned almost 9,000 ratings as of this writing—but I think it could have done even better, especially when ChatGPT came along to make it topical. In fact, this title surged in Germany once we entered the ChatGPT era to become far and away my bestselling novel there.

Alas, I saw no such surge for *Infinity Born*.

So why did I choose the title of *The Breakthrough Effect* for the novel you just read? Good question. I wanted to name it *Arcadia*, for obvious reasons, but several veterans of the publishing world felt this title was too generic. I considered numerous others, including *Accelerated*, *Hyper-time*, *Overclocked*, *Hyper-clocked*, *Overdrive*, and so on.

The Breakthrough Effect was suggested to me by one of my early readers

(who happened to be quite seasoned in the business). While the novel does focus on an enigmatic trillionaire who has found a secret way to generate scientific breakthroughs at a furious pace (killing and enslaving geniuses and accelerating their minds to a million times normal speed), the word “effect” isn’t really right. But what is? *The Breakthrough Generating VR Think Tank Filled with Geniuses Capable of Thinking at Optical-Supercomputer Speed?*”

This would have been a more accurate title, to be sure, but it would have left no spoilers . . . *unspoiled*. . . and would have been pretty tough to fit on a cover.

Ultimately, I let my Facebook friends decide. I put *The Breakthrough Effect* and two other titles out for a vote, and after more than four hundred responses from my fans, *Breakthrough* was the clear winner. Personally, I liked *Accelerated* the best, but I’m horrible at choosing titles, as I’ve said, so I went with the clear favorite.

THE RICHARDS TEST FOR SENTIENCE: In a paper written in 1950, the brilliant computer pioneer Alan Turing proposed a test to determine if an AI was displaying human-level intelligence, which many consider to be a shorthand for conscious awareness, or sentience. His method, called the *Turing Test*, was fairly simple. All an AI would have to do to pass his test was to convince humans in a written exchange that it, too, was human.

When I wrote *Infinity Born*, I considered what it might be like to be thinking at near the speed of light but be unable to move or interact with the world. I realize that none of us could endure this for extended periods of time without going mad.

And that’s when it hit me. AIs operate at ludicrous speeds, yet they are as patient as can be, and unaffected by long stretches of inactivity. An AI will wait for an eternity, at least from its super speedy perspective, for someone to finish typing in a query, with no ill effects.

The more I considered this, the clearer it became to me that *this* should be the true test of sentience. Only a machine, with no imagination, no hopes or dreams, and no real sense of the passage of time, could be patient enough to wait without any outside stimulus for a veritable eternity and not lose its mind. Conversely, if an AI ever did get bored, ever did go mad for want of timely intellectual stimulation, it would have to be self-aware and conscious.

To this day I've never read any scientific discussion of such a concept. So, in case this boredom test really is an original idea, and actual scientists ever decide to adopt it, I'd like it to be called the *Richards Test*.

I'm just saying . . .

THE STAR TREK OPENING AND OTHER ODDS AND ENDS: Along with the inestimable Isaac Asimov, *Star Trek* had a huge influence on me when I was a boy, stoking my love of science and science fiction. As I was working on the prologue for *The Breakthrough Effect*, I was struck by the parallels between the scene I was writing and the opening of the 2009 *Star Trek* movie.

I found the first ten minutes of this movie extraordinarily compelling. Especially the following lines, which Pike delivers to a young Jim Kirk: "Your father was the captain of a starship for twelve minutes. He saved eight hundred lives. Including your mother's—and yours. I dare you to do better."

In my view, this is some of the most perfect dialogue ever uttered in movie history.

So I couldn't resist having Phil Thomison come to the same conclusion and try to reach Eric Raymond by playing key scenes from the movie. I hope I was able to make this brief passage work, even for those of you who have never seen this movie, but that's for each of you to decide.

I also realized while writing the prologue that a famous college football star would have to change his name to join EHO and fall off the radar, so I

decided to have fun with that. First, I thought it would be amusing to end the prologue with Eric insisting he would *never* change his name to Liam Dunne, under any circumstances, and then have the first sentence of Chapter One make it clear that he had done just that.

Second, I decided to choose a name I could use to make puns. There were originally more of these puns in the novel, but I ended up cutting about half of them out (because I thought this gag had become a bit *over-Dunne*). Or, put another way, the Dunne pun had been fun, but after having its day in the sun, I was Dunne (sorry about that, I know I should have resisted).

With respect to my choice of settings, I've lived in San Diego for decades now and have visited Coronado Island a number of times. I've even stayed at the famous Hotel Del Coronado, which is less than two miles from Naval Air Station North Island. Coronado is truly a wonderful place to visit, although probably less so if you're the subject of a massive manhunt.

Finally, I've often commented on just how miraculous it is that living things are able to reproduce. What a miracle it is that a single fertilized human egg can spontaneously create an entire human being, even without a "how-to" YouTube video to guide it.

In our society, everyone knows where babies come from and how pregnancy works, but what would it be like for a woman giving birth without any foreknowledge of what was coming? Talk about *shock and awe*. This might even be true for my fictional first god, an entire universe unto itself, the first time an intelligence within became transcendent and was able to bud off and form a new universe.

This led me to write a sentence or two about how Adam and Eve must have felt when Eve gave birth for the first time (the word *surprise* doesn't even *begin* to cover it). I found the thought experiment fascinating, and this was one of my favorite passages.

ARE WE PSYCHOLOGICALLY EQUIPPED TO HANDLE OUR TECHNOLOGY? When I began writing this novel, ChatGPT wasn't a thing. It exploded onto the scene when I was halfway through.

Yikes. I incorporated a few sentences about this new development but chose not to dwell on it. Still, this was yet another reminder of how hard it's become for science fiction to stay ahead of science fact. The speed of progress is dizzying, and I've come to believe dangerous to the human condition.

Even as little as five years ago, I was convinced that advances in science and technology, if used correctly, were always positive, even if temporarily disruptive. My novels tend to be optimistic, and I've even taken care on several occasions to explain how things are better than they've ever been, even if the vast majority of us believe the exact opposite. Most of us falsely believe we're living in the worst of times, with the most poverty, the highest number of murders, and so on, when that is not at all the case.

I thought the reason so many of us missed the big picture, wallowed in a false, pessimistic view of reality, was due to the toxic influence of our political class, and our 24/7 doom-and-gloom media, which have both become inescapable.

But I've come to believe the problem goes much deeper. I've come to believe that human beings aren't emotionally equipped to handle a world with the technology we have, and the pace with which our lives are constantly changing. We've become addicted to our technology, which is cutting us off from basic human needs. We stare at screens too much, and spend too little time together, socializing, playing sports, or engaging in meaningful conversation.

We seem to always be connected to a screen, never able to just relax and get away from it all, leave our phones at home, and take things slow.

Evolution has wired us for a relatively low-stimulus existence, with calm and quiet largely the norm, and distractions at a minimum. Modern living, however, has thrust us into a 24/7 existence trapped inside the equivalent of the rowdiest Las Vegas casino, with slot machines clanging non-stop, and other noise and commotion designed to keep us awake, wired, and adrenalized at all times.

Then, too, our technology allows the corrupt among us to hit us with a constant barrage of propaganda that can reach hundreds of millions of people all at once. Because of this, we can be easily spun into a frenzy, manipulated like so much putty, as data on our preferences and behavior is collected and dissected, and teams of geniuses and AIs determine the best ways to control us.

So simply being aware of how dramatically better we are on every dimension than we've ever been (wealth, education, health, and on and on) isn't all that helpful. Because in many ways we're more divided, misled, polarized, anxious, neurotic, and miserable than ever before.

I've come to suspect that the growing malaise felt in our society hasn't come about *despite* our miraculous technologies (which have given us the highest standard of living in history). The malaise has come about *because* of these technologies.

And social media is one of the biggest culprits. There is a scholarly article in the journal, *Comprehensive Psychiatry*, published in December 2022, that I found particularly interesting. The article is entitled, "Social media as an incubator of personality and behavioral psychopathology: Symptom and disorder authenticity? Or psychosomatic social contagion?"

The article is quite interesting, and a bit chilling, as it details the dramatic explosion of mood disorders in our adolescents and suggests that part of this rise may be driven by a subconscious compulsion to gain attention on social

media platforms. In a sense, this unprecedented skyrocketing of mental illness is partly psychosomatic, allowing mood disorders to go viral the way popular memes might do.

Here is a brief excerpt from the piece.

EXCERPT: Concerning the broader question of whether social media is causally related to the rise in rates of adolescent mood disorders, self-harm, and suicide since 2010 in the US and UK, it has been pointed out that the rise paralleled the years when American teens were obtaining smart phones and becoming daily users of social media platforms such as Instagram and TikTok. More broadly, there has been a recognition of a vast online ‘neurodivergence’ ecosystem in which classical mental illness symptoms and diagnoses are viewed less as mental health concerns that require professional attention, but rather as consumer identities or character traits that make individuals sharper and more interesting to others around them.

So what can be done to fix these issues, largely brought on, in my opinion, from the disconnect between our wiring, evolved for a simpler time, and our current frenzied, over-stimulated lives? I wish I knew. Hopefully, we’ll work our way out of it, as we have for so many problems throughout history. But what worries me is that we’ve dug out of problems in the past by using technology. If technology has *become* the problem, this could spell trouble.

My hope is that more and more of us will come to recognize that the human psyche is ill-suited for some aspects of our modern world, and we will throttle back, seek to ration our use of addictive technology and social media, which has the power to enslave us.

Emulating the Human Brain in a computer

The idea of making perfect copies of the human brain to transfer to a virtual reality world has been around for some time. One of the best, most concise definitions I've found actually comes from the Wikipedia page under the heading of "Mind uploading," as follows:

Mind uploading is a speculative process of whole brain emulation in which a brain scan is used to completely emulate the mental state of the individual in a digital computer. The computer would then run a simulation of the brain's information processing, such that it would respond in essentially the same way as the original brain and experience having a sentient conscious mind.

Obviously, numerous questions remain, some of which are purely philosophical at the moment. Can a perfect digital copy of a human mind really be made? Would this truly be identical to the actual person? What is the true nature of consciousness? Do humans have souls? If so, what exactly is a soul? And can it be copied?

We're a long way off, but progress is being made on several key fronts. I'll touch on a few pieces of the puzzle below:

IS CONSCIOUSNESS QUANTUM IN NATURE?

In *The Breakthrough Effect*, Kim claims that the human brain makes use of quantum processes to give it the power and randomness required for consciousness. Evidence is growing that this may well be true, that our minds make use of quantum phenomena that biological systems are uniquely evolved to tap into.

Several decades ago, Stuart Hameroff, an anesthesiologist, and Sir Roger Penrose, a legendary mathematical physicist, introduced a theory that described the brain as a quantum system. Since neurons are too large to make use of quantum effects, they theorized that structures called microtubules are the actual engine of the brain. These tiny, sub-microscopic structures are like

the Legos of the biological world, found in every plant and animal cell on Earth, acting as structural elements in cells, pulling chromosomes apart during cell division, forming cilia and flagella to allow for cellular movement, and so on.

While this theory is hugely speculative, emerging evidence suggests it is a real possibility. For example, it turns out that the brain of a patient under anesthesia is basically normal in every way—neurons fire, pain signals travel normally, and so on—but it isn't *conscious*, such that pain doesn't *register*. Everything works normally except for subjective experiences, which are eliminated.

Recent experiments have shown that anesthetics destabilize microtubules in the brain, and that this effect is critical for these drugs to function properly. Meaning that if you *protect* the microtubules from being destabilized, the drugs lose their power to anesthetize, suggesting that microtubules play some role in consciousness.

For those with interest in this topic, I recommend reading a 2018 piece in *Discover Magazine* (easily found online), entitled, “Can Quantum Physics Explain Consciousness? One Scientist Thinks It Might.”

Finally, I’ll leave you with an excerpt from a 2022 article in *Big Think* entitled, “Brain experiment suggests that consciousness relies on quantum entanglement.”

EXCERPT: Supercomputers can beat us at chess and perform more calculations per second than the human brain. But there are other tasks our brains perform routinely that computers simply cannot match—interpreting events and situations and using imagination, creativity, and problem-solving skills. Our brains are amazingly powerful computers, using not just neurons but the connections between the neurons to process and interpret information.

And then there is consciousness, neuroscience’s giant question mark. What causes it? How does it arise from a jumbled mass of neurons and synapses? After all, these may be enormously complex, but we are still talking about a wet bag of molecules and electrical impulses.

Some scientists suspect that quantum processes, including entanglement, might help us explain the brain’s enormous power, and its ability to generate consciousness. Recently, scientists at Trinity College Dublin, using a technique to test for quantum gravity, suggested that entanglement may be at work within our brains. If their results are confirmed, they could be a big step toward understanding how our brain, including consciousness, works.

NANITES IN THE BRAIN: In *The Breakthrough Effect*, I wrote the following:

Oliver Scott’s people injected hundreds of billions of microscopic nanites

into my brain. Smart particles responsible for the hallucinations. Able to stimulate individual neurons and nerve pathways, and gather data on the location of neurons, electrical potentials, chemical potentials, memory traces, and so on.

“The nanites were able to holistically record how my brain laid down new memories, responded to hormones, and what neuronal pathways fired during moments of anger, arousal, laughter, and so on.”

In my view, this really is how one would have to proceed to have any chance of success. As you may have guessed, scientists really are working on injecting nanites, often called *smart dust*, into humans to map their brains and help facilitate a brain/computer interface. I’ve pasted a few excerpts that describe this possibility below.

The first is from an article in *New Scientist* (2015), entitled “Twenty billion nanoparticles talk to the brain using electricity.”

EXCERPT: Nanoparticles can be used to stimulate regions of the brain electrically, opening up new ways to treat brain diseases. It may even one day allow the routine exchange of data between computers and the brain.

When magnetoelectric nanoparticles (MENs) are stimulated by an external magnetic field, they produce an electric field. If such nanoparticles are placed next to neurons, this electric field should allow them to communicate.

Dr. Sakhrat Khizroev of Florida International University in Miami and his team inserted 20 billion of these nanoparticles into the brains of mice.

Khizroev’s goal is to build a system that can both image brain activity and precisely target medical treatments at the same time. “When they are injected in the brain, we can ‘see’ the brain,” says Khizroev.

The second excerpt is from an article in *MIT Technology Review* in 2013,

entitled, “How Smart Dust Could Spy On Your Brain.”

EXCERPT: *Intelligent dust particles embedded in the brain could form an entirely new form of brain-machine interface, say engineers.*

Today, Dongjin Seo and pals at the University of California Berkeley reveal an entirely new way to study and interact with the brain. Their idea is to sprinkle electronic sensors the size of dust particles into the cortex and to interrogate them remotely using ultrasound. The ultrasound also powers this so-called neural dust. Each particle of neural dust consists of standard CMOS circuits and sensors that measure the electrical activity in neurons nearby.

MAPPING THE HUMAN BRAIN: A simple internet search on “human brain mapping” or “whole brain emulation” will yield an avalanche of information for those with interest in this subject. One interesting resource that can also be readily found with a simple search is a 130-page treatise out of Oxford entitled, “Whole Brain Emulation: A Roadmap.”

The introduction to this treatise contains a sentence that is particularly relevant to the events in *The Breakthrough Effect*, as follows: *If emulation of particular brains is possible and affordable, and if concerns about individual identity can be met, such emulation would enable back-up copies and “digital immortality.”*

Finally, in the novel, I wrote of a Swiss initiative named the Blue Brain Project, which began in 2005 with the stated goal of creating a supercomputer-powered reconstruction of the human brain. I also mentioned that this group made a key discovery in 2017, that the human brain consists of countless geometrical structures operating in as many as eleven dimensions.

This passage from the novel is based on actual research, and the Blue

Brain Project is quite real. Here is an excerpt from a piece in *Humans* (a British publication) from 2018, entitled “The Human Brain Can Create Structures in Up to 11 Dimensions.”

EXCERPT: Last year, neuroscientists used a classic branch of maths in a totally new way to peer into the structure of our brains.

What they discovered is that the brain is full of multi-dimensional geometrical structures operating in as many as 11 dimensions.

We're used to thinking of the world from a 3-D perspective, so this may sound a bit tricky, but the results of this study could be the next major step in understanding the fabric of the human brain—the most complex structure we know of.

This brain model was produced by a team of researchers from the Blue Brain Project, a Swiss research initiative devoted to building a supercomputer-powered reconstruction of the human brain.

The team used algebraic topology, a branch of mathematics used to describe the properties of objects and spaces regardless of how they change shape. They found that groups of neurons connect into 'cliques', and that the number of neurons in a clique would lead to its size as a high-dimensional geometric object (a mathematical dimensional concept, not a space-time one).

Optical computers (the need for speed)

An optical computer is a straightforward idea—at least on paper. You simply replace electrons with photons (making your device *photonic* rather than *electronic*). While this is much easier said than done, scientists have long used photons in all sorts of miraculous inventions, including lasers, fiber optics, and optical readers that burn and read Blu-Ray discs (although these processes currently have a middleman, as the photons are converted into

electrons, which are then converted back into photons, slowing things down).

While optical computing is a long way from reality, technology has a way of arriving sooner than we think, and great progress is being made. Such computing systems are currently exceedingly large, as was mentioned in the novel, and a Kim Reynolds caliber genius hasn't yet stepped up to revolutionize the technology.

If optical computers could be perfected, however, their speed would be orders of magnitude faster than anything we have today, a fact that made the plot of *The Breakthrough Effect* possible.

I'll leave this section with relevant excerpts from two articles on the subject. The first is from a February piece in *Technology Future* entitled, "Optical Computing: Solving problems at the speed of light."

Excerpt: *But although we are still far from the 100% optical microchip—a practical system capable of computing only by using photons—advances are increasing the involvement of photonics in computers. "Application-specific photonics are already here, particularly in data centers and more recently in machine learning," says Rajesh Menon, a computer engineer at the University of Utah. In fact, AI neural networks are being touted as one of its great applications, with the potential to achieve ten million times greater efficiency than electronic systems.*

"Statistical workloads such as those employed in AI algorithms are perfectly suited for optical computing," says Mo Steinman, vice president of engineering at Lightelligence, a startup arising from an MIT photonics lab.

Thus, optical computing can solve very complex network optimization problems that would take centuries for classical computers.

The final excerpt I'll provide here is from a December 2020 press release from Aalto University (Finland), entitled: "One Million Times Faster Than Current Technology: New Optical Computing Approach Offers Ultrafast Processing."

Excerpt: Logic gates are the basic building blocks of computer processors. Conventional logic gates are electronic, working by shuffling around electrons. However, researchers have been developing light-based optical logic gates to meet the data processing and transfer demands of next-generation computing. Aalto University scientists developed new optical chirality logic gates that operate about a million times faster than existing technologies, offering ultrafast processing speeds.

The optical chirality logic gate is made of a material that emits lights with different circular polarization depending on the chirality of the input beams. This new approach, which is described in a paper published in the journal Science Advances, uses circularly polarized light as the input signal. The logic gates are made from crystalline materials that are sensitive to the handedness of a circularly polarized light beam. This serves as the basic building block for one type of logic gate (XNOR), and the remaining types of logic gates are built by adding filters or other optical components.

Additionally, the team demonstrated that a single device could contain all of their chirality logic gates operating simultaneously in parallel. This is a significant advance over existing logic gates, which can only carry out a single logic operation at a time.

Brain implants and telepathy

The brain implants used by select Tech Ops agents in the novel are on their way to becoming reality faster than most of us realize. Computers that

can recognize human thoughts and engage in a sort of telepathy are being developed now, and prosthetic limbs and video games, among other items, can now be controlled using thoughts alone. Recently, scientists at the University of California, San Francisco, created a mind-reading device that can turn mental activity into text with better than ninety-percent accuracy.

It is widely known that Elon Musk started a company called Neuralink to perfect a brain-computer interface very similar to the one described in the novel. Here is a brief description of what the company is attempting to accomplish, taken from its website.

“We’re designing the first neural implant that will let you control a computer or mobile device anywhere you go. Micron-scale threads are inserted into areas of the brain that control movement. Each thread contains many electrodes and connects to an implant, the Link. The Neuralink app would allow you to control your iOS device, keyboard, and mouse directly with the activity of your brain, just by thinking about it.”

I'll leave this section with a fascinating excerpt from a July 2022 article in *Businessweek Technology* entitled, "Brain-Computer Interface Startup Implants First Device in US Patient."

EXCERPT: On July 6 a doctor at the Mount Sinai West medical center in New York threaded a 1.5-inch-long implant made up of wires and electrodes into a blood vessel in the brain of a patient with ALS. The hope is that the patient, who's lost the ability to move and speak, will be able to surf the Web and communicate via email and text simply by thinking—the device will translate his thoughts into commands sent to a computer.

Synchron, the startup behind the technology, has already implanted its devices in four patients in Australia, who haven't experienced side effects and have been able to carry out such tasks as sending WhatsApp messages and making online purchases. The recent procedure was the first the company has done in the US, putting it ahead of competitors, including Elon Musk's Neuralink Corp.

Enhanced Human Operations

EHO is real, and I've used this organization, or enhanced operatives, in any number of novels. Why? Because I truly believe this type of super-soldier will actually exist in ten to twenty years. The various enhancements mentioned in the novel are all being worked on now, including smart contact lenses, artificial red blood cells with superior oxygen exchange capabilities (respirocytes), computer implants, telepathy, genetically engineered strength improvements, and so on.

In fact, nearly all of the inventions of any kind mentioned in the novel are being seriously pursued, including invisibility, high-speed tunneling, implants, telepathy, telepathic control, improved batteries, improved desalination, and so on.

But getting back to human enhancements, when I first began using augmented operatives in my novels, my author's notes covered each of the many technologies used fairly extensively. I won't repeat these notes here since many of you have already read them many times. For those of you interested in learning more about one or more specific enhancements, such as powered exoskeletons, respirocetes, smart contacts, improved endurance, genetically engineered improvements in cognition, attention, memory, and so on, you can find a wealth of information online.

Finally, for those of you who haven't read previous notes on EHO or human enhancements, I will repeat two excerpts I've used a number of times now, since they spell out the situation quite nicely.

The first is from an article in *Popular Mechanics* that appeared all the way back in 2015, entitled, "Russia and China's 'Enhanced Human Operations' Terrify the Pentagon."

EXCERPT: U.S. adversaries are already working on something America is reluctant to: Enhanced Human Operations (EHO). EHOs entail modifying the body and the brain itself, creating what some have called "super soldiers." At a press conference laying the Defense Department's future research and development strategy on Monday, Deputy Defense Secretary Bob Work warned that America would soon lose its military competitive advantage if it does not pursue technologies such as employing artificial intelligence.

"Now our adversaries, quite frankly, are pursuing enhanced human operations, and it scares the crap out of us," Work said.

Altering human beings from the inside to more effectively fight in combat presents ethical dilemmas for American scientists and military planners. Work says those ethical concerns typically don't apply to authoritarian governments, but their lack of hesitation in developing EHOs may force

America's hand.

“We’re going to have to have a big, big decision on whether we’re comfortable going that way,” Work admits.

The second excerpt is from a 2017 article in the *San Diego Union Tribune*, entitled, “Superpowers aren’t just for superheroes anymore. Want some?”

EXCERPT: Scientists have [come to the] realization that the revolutionary CRISPR gene-editing tool can be used in god-like fashion to engineer improved biological performance.

But there is also a chance that human enhancement will devolve into a Wild West free-for-all. Because the geopolitical stakes are too high. This explains why in 2015 the Pentagon announced it had begun its Enhanced Human Operations program, which is expected to use all the tools described above and probably quite a few that we don’t know about. With archrival China undertaking a heavily funded similar program, as well as engaging in unprecedented human genetic engineering, the US government has a primal reason (survival) to shift to anything-goes mode.

Be terrified, be fascinated, be appalled, or be skeptical—but most of all be ready. If sophisticated human enhancement is crucial to dominating the twenty-first century—as the world’s greatest powers have concluded—it’s coming.

That concludes my commentary on the novel. Thanks to those of you who decided to give this section a read, and thanks again for reading *The Breakthrough Effect*.

Until the next time . . .

ABOUT THE AUTHOR

Douglas E. Richards is the *New York Times* and *USA Today* bestselling author of *WIRED* and numerous other novels (see list below). A former biotech executive, Richards earned a BS in microbiology from the Ohio State University, a master's degree in genetic engineering from the University of Wisconsin (where he engineered mutant viruses now named after him), and an MBA from the University of Chicago.

In recognition of his work, Richards was selected to be a “special guest” at San Diego Comic-Con International, along with such icons as Stan Lee and Ray Bradbury. His essays have been featured in *National Geographic*, the *BBC*, the *Australian Broadcasting Corporation*, *Earth & Sky*, *Today's Parent*, and many others.

The author has two children and currently lives with his wife and dog in San Diego, California.

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